COURTROOM
1 MUNICIPAL PLAZA
BEACON, NY 12508

Len Warner
Karen Quiana
Kevin Byrne
Donna Francis
J. Randall Williams
David Jensen
Chair John Gunn

February 14, 2024
7:00 PM
Planning Board Agenda

The Planning Board will meet in the Municipal Center Courtroom at 7:00 p.m. A work session will take place at 7:00 p.m. for a training workshop, discussion of agenda items and/or topics of interest to the Planning Board. The regular meeting will begin immediately thereafter, but no later than 7:30 p.m.

Regular Meeting

1. Continued review of application for Site Plan Approval, and review of applications for Subdivision and Special Use Permit approval, place of worship, 409 Fishkill Avenue, Fishkill Avenue, and Mead Avenue, submitted by Soka Gakkai International â€“ USA.
2. Continued review of application for Site Plan and Subdivision approval, Mixed-Use Commercial and Residential, 45 Beekman Street, High Street, and High Street, submitted by Beekman Arts Center LLC and Bay Ridge Studios LLC.
3. Review application for Subdivision approval, internal property subdivision, 18-30 Edgewater Place, submitted by Scenic Beacon Developments, LLC.

Architectural Review

1. Single-Family House - 56 Townsend Street, Lot 8
2. Certificate of Appropriateness - 520 Main Street; Sign
3. Certificate of Appropriateness - Two Cross Street; Facade

City of Beacon Planning Board Agenda
02/14/2024

Title:

Continued review of application for Site Plan Approval, and review of applications for Subdivision and Special Use Permit approval, place of worship, 409 Fishkill Avenue, Fishkill Avenue, and Mead Avenue, submitted by Soka Gakkai International – USA.

ATTACHMENTS

409 Fishkill PB 2.14.24 SGI USA Cover Letter_2024-0130.pdf

409 Fishkill PB 2.14.24 Special-Use-Permit-Application_ (executed).pdf

409 Fishkill PB 2.14.24 Subdivision-Application (executed).pdf

409 Fishkill PB 2.14.24 Subdivision plat.pdf

409 Fishkill PB 2.14.24 DEED.pdf

409 Fishkill PB 2.14.24 Cost Estimate 2024-0130.pdf

409 Fishkill PB 2.14.24 NYS Roadway Inventory.pdf

409 Fishkill PB 2.14.24 Site Plan Set - SGI USA 2024-0130.pdf

Lanc & Tully 409 Fishkill Ave 02-09-24 review.pdf

KARC Review PB_409 Fishkill Ave_2.12.2024.pdf

Civil & Environmental Engineering Consultants
174 Main Street, Beacon, New York 12508 (Main Office and Mailing Address)
13 Chambers Street, Newburgh, NY 12550 (Satellite Office)
Phone: 845-440-6926
www.HudsonLandDesign.com

January 30, 2024

Hon. John Gunn, Chairman and Members of the City of Beacon Planning Board
1 Municipal Plaza
Beacon, NY 12508

Re: SGI-USA Site Plan and Special Use Permit, and Lotline Merger (Subdivision)
409 Fishkill Avenue
Tax Parcels: 6055-80-403061 (±0.23 acre)
6055-80-399053 (±0.16 acre)
6055-80-406047 (±0.23 acre)
6055-80-411056 (±0.22 acre)
6055-80-416064 (±0.22 acre)
6055-80-418071 (±0.11 acre); 1.17 acres total
City of Beacon, NY

Dear Chairman Gunn and Members of the Planning Board:

On behalf of the Applicant for the above referenced project, Hudson Land Design (HLD) is pleased to submit five (5) copies of the following documents in support of the Project:

- Application for Special Use Permit
- Application for Subdivision
- Fees & escrow:
  - Special use permit:
    - $3,000 escrow: SGI-USA check 154799
    - $500 fee: SGI-USA check 154800
  - Subdivision:
    - $3,000 escrow: DKH Realty LLC check 2717
    - $950 fee: DKH Realty LLC check 2716
- Civil Site Plan Set (Sheets 1 through 9 of 9)

- Subdivision Plat prepared by Badey & Watson
- Cost Estimate for work within R-O-W
- Property Deed
- NYS Roadway Inventory System printout

These items have been revised based on consultants' comments and are being submitted to the City of Beacon Planning Board for continued review. The following are point-by-point responses to each comment contained within the consultant review letters:

Lanc & Tully review letter dated January 3, 2024:

General Comments:

1. Two of the tax parcels that contain the building, parcels 411056 and 416064, will be merged via submitted subdivision application. The remaining 4 parcels will remain separate. The six tax parcels consisting of the project site and the tax parcel to the north are deeded together.
2. Acknowledged. We are quite confident that the City of Beacon is responsible for permitting work along Fishkill Avenue at Conklin Street. The attached NYS Roadway Inventory System mapping shows maintenance responsibilities to the City of Beacon for Fishkill Avenue up to the municipal line with the Town of Fishkill, where it reverts to NYSDOT maintained. Colliers is continuing to seek verification from the NYSDOT that this is the case.
3. A cost estimate for proposed work in the right-of-way is included with this submission.

Engineering Plans:

1. Sheet 2 of 9
    a. The existing water service to the building appears to be ¾" diameter. The water service size has been labeled on this sheet.
    b. The existing sewer service to the building appears to 4" diameter. The sewer service size has been labeled on this sheet.
2. Sheet 3 of 9
    a. Sight distances from the Colliers have been added to Sheet 1. Sight triangles have been labeled on Sheet 3 denoting the area of minimum required sight distance.
    b. Labels for the existing chainlink fence that is to be removed have been corrected.
3. Sheet 4 of 9
    a. The proposed catch basin grate and pipe invert elevations have been shown on Sheet 4.
    b. The proposed contours on both sides of the southerly entrance have been labeled.
    c. The hump in grading, visible in the 180 contour, is caused by the site entrance drop through the curbline and sidewalk ramps on either side of the entrance. We reviewed the grading along the front of the site. As has been discussed at the previous planning board meetings, the grading of the grassed area is intended to direct drainage to the south toward the corner of Conklin Street. As part of the area at the corner of Fishkill Avenue and Conklin Street being dedicated to the City for

highway purposes, the proposed catch basin has been slightly moved further into the site (to remain private). In moving the catch basin slightly upstream, the grate had to be slightly raised, and the pitch toward the proposed catch basin is at the minimum slope that we use for design of 0.5%.

d. The size and pipe materials for the proposed culverts are labeled on this sheet.
e. The size and material of the roof leaders and header pipe are labeled on this sheet.

4. Sheet 5 of 9
    a. Silt fence has been moved outward, along the curbline on Fishkill Avenue.
    b. Tree protection areas have been shown on this sheet.
    c. Inlet protection has been added to the existing catch basin in the center of the parking area.
5. Sheet 6 of 9
    a. Water and sewer service sizes are now labeled on this sheet.
6. Sheet 8 of 9
    a. An updated lighting plan is provided on sheet LT-1.

KARC review letter dated January 5, 2024:

1. A special use permit application has been prepared for the parking principle use in the R1-5 and GB districts. The two tax parcels containing the building, parcels 411056 and 416064, will be merged. A subdivision application has been added to the submission for the lot consolidation.
2. At the January 9, 2024 Planning Board meeting the parking layout was discussed, where the Board accepted the currently proposed layout.
3. At the January 9, 2024 Planning Board meeting the landscaping and street trees were discussed, where the Board accepted the proposed street trees. Additional, low-lying landscaping has been added along the Fishkill Avenue frontage.
4. An updated lighting plan is provided on sheet LT-1.

Planning Board discussion from January 9, 2024:

1. The application has been expanded to provide subdivision (merger of two tax parcels) including a dedication to the City of Beacon, and a Special Use Permit application for parking associated with the project.
2. The scrub oaks have been changed to red oaks.
3. The detail on the permanent grass seeding is taken from the 2016 New York State Standards and Specifications for Erosion and Sediment Control, “Standards and Specifications for Recreation Area Seeding”. We have chosen the Sunny Site Option A mixture, which consists of 65% red fescue, 20% perennial ryegrass and 15% fine fescue. From a number of sources, both the red fescue and ryegrass exhibit salt tolerance, and the fine fescue is a bit more sensitive to salts. As a side note, Kentucky Bluegrass, which is not part of the mixture, is salt sensitive.
4. Lower shrubs have been provided along Fishkill Avenue, and have been shown as Inkberry per directive from the applicant. These shrubs have been shown in planting beds adjacent

to the travel aisle in between proposed (or existing) street trees. It is noted that Inkberry are moderately salt tolerant.

5. The street trees have been increased to 3" caliper, which should be in the 12 to 16' planted height range.

At the January 2024 meeting, we noted that we believe this application should be deemed a Type II action under SEQRA Part 617.5(c)(18), which states: reuse of a residential or commercial structure, or of a structure containing mixed residential and commercial uses, where the residential or commercial use is a permitted use under the applicable zoning law or ordinance, including permitted by special use permit, and the action does not meet or exceeds any of the thresholds in section 617.4. We believe that Jennifer Gray confirmed this to be the case.

As such, we look forward to continuing to discuss this project at your February 2024 Planning Board meeting, and will seek to set a public hearing on the site plan, special use permit and subdivision application. Should you have any questions, please feel free to contact me at my direct line 845-766-8955.

Sincerely,



Daniel G. Koehler, P.E.
Principal

cc: SGI-USA (via email)
Robert Scarpa, R.A., NCARB, LEED AP BD+C (via email)
Michael A. Bodendorf, P.E. (HLD file)

APPLICATION FOR SPECIAL USE PERMIT

Submit to Planning Board Secretary, One Municipal Plaza, Suite One, Beacon, New York 12508

IDENTIFICATION OF APPLICANT

Name: Soka Gakkai International - USA

Address: 606 Wilshire Boulevard, Santa Monica, CA 09401

c/o Allen Okazaki-Freeney

Signature: Mike Bynum Digitally signed by Mike Bynum Date: 2024.01.24 10:41:39 -08'00'

Date: 1/24/2024

Phone: 310-260-8954

(For Official Use Only)	Date	Initials
Application & Fee Rec'd		
Initial Review		
PB Public Hearing		
Sent to City Council		
City Council Workshop		
City Council Public Hearing		
City Council Approve/Disapprove		

IDENTIFICATION OF REPRESENTATIVE / DESIGN PRFESSIONAL

Name: Daniel Koehler, P.E.

Address: 174 Main Street

Beacon, NY 12508

Phone: 845-440-6926

Fax:

Email address: dkoehler@hudsonlanddesign.com

IDENTIFICATION OF SUBJECT PROPERTY:

Property Address: 409 Fishkill Avenue, Beacon, NY 12508

Tax Map Designation: Section 6055 Block 80 Lot(s) 403061, 399053, 406047, 411056, 416064 & 418071

Land Area: +/- 1.18 acres

Zoning District(s) GB (General Business)

DESCRIPTION OF PROPOSED DEVELOPMENT:

Proposed Use: Place of worship

Gross Non-Residential Floor Space: Existing 5,454 sqft Proposed No additional

TOTAL: 5,454 sqft

Dwelling Units (by type): Existing None Proposed

TOTAL:

ITEMS TO ACCOMPANY THIS APPLICATION

a. Five (5) **folded** copies and One (1) digital copy of a site location sketch showing the location of the subject property and the proposed development with respect to neighboring properties and developments.

b. Five (5) **folded** copies and One (1) digital copy of the proposed site development plan, consisting of sheets, showing the required information as set forth on the back of this form and other such information as deemed necessary by the City Council or the Planning Board to determine and provide for the property enforcement of the Zoning Ordinance.

c. Five (5) **folded** copies and One (1) digital copy of additional sketches, renderings or other information.

d. An application fee, payable to the City of Beacon, computed per the attached fee schedule.

e. An initial escrow amount, payable to the City of Beacon, as set forth in the attached fee schedule.

INFORMATION TO BE SHOWN ON SITE LOCATION SKETCH

a. Property lines, zoning district boundaries and special district boundaries affecting all adjoining strets and properties, including properties located on the opposite sides of adjoining streets.
b. Any reservations, easements or other areas of public or special use which affect the subject property.
c. Section, block and lot numbers written on the subject property and all adjoining properties, including the names of the record owners of such adjoining properties.

INFORMATION TO BE SHOWN ON THE SITE DEVELOPMENT PLAN

a. Title of development, date and revision dates if any, north point, scale, name and address of record owner of property, and of the licensed engineer, architect, landscape architect, or surveyor preparing the site plan.
b. Existing and proposed contours at a maximum vertical interval of two (2) feet.
c. Location and identification of natural features including rock outcrops, wooded areas, single trees with a caliper of six (6) or more inches measured four (4) feet above existing grade, water bodies, water courses, wetlands, soil types, etc.
d. Location and dimensions of all existing and proposed buildings, retaining walls, fences, septic fields, etc.
e. Finished floor level elevations and heights of all existing and proposed buildings.
f. Location, design, elevations, and pavement and curbing specifications, including pavement markings, of all existing and proposed sidewalks, and parking and truck loading areas, including access and egress drives thereto.
g. Existing pavement and elevations of abutting streets, and proposed modifications.
h. Location, type and design of all existing and proposed storm drainage facilities, including computation of present and estimated future runoff of the entire tributary watershed, at a maximum density permitted under existing zoning, based on a 100 year storm.
i. Location and design of all existing and proposed water supply and sewage disposal facilities.
j. Location of all existing and proposed power and telephone lines and equipment, including that located within the adjoining street right-of-way. All such lines and equipment must be installed underground.
k. Estimate of earth work, including type and quantities of material to be imported to or removed from the site.
l. Detailed landscape plan, including the type, size, and location of materials to be used.
m. Location, size, type, power, direction, shielding, and hours of operation of all existing and proposed lighting facilities.
n. Location, size, type, and design of all existing and proposed business and directional signs.
o. Written dimensions shall be used wherever possible.
p. Signature and seal of licensed professional preparing the plan shall appear on each sheet.
q. Statement of approval, in blank, as follows:

Approved by Resolution of the Beacon Planning Board
on the _____ day of _____, 20_____
subject to all conditions as stated therein

_____ _____
Chairman, City Planning Board **Date**

APPLICATION FEES

Site Plan	**Residential** $500 + $250 per dwelling unit **Commercial** $500 + $250 per 1,000 s.f.
Special Use Permit	**Residential** $500 + $250 per dwelling unit **Commercial** $500 + $250 per 1,000 s.f.
Subdivision	$ 750 for 2-4 lots + $100 per lot $1,000 for 5 or more lots + $300 per lot

ESCROW FEES

ALL SUBDIVISIONS, AND RESIDENTIAL SITE PLAN AND SUP APPLICATIONS

No. of Lots or Dwelling Units	Initial Deposit	Depleted to	Replenishment
1-5 (including lot-line realignment)	$ 3,000	$ 1,000	Current bills + $1,200
6-15	$ 9,000	$ 2,500	Current bills + $1,200
Over 15	$ 18,000	$ 5,000	Current bills + $6,000

NON-RESIDENTIAL SITE PLAN AND SUP APPLICATIONS

	Initial Deposit	Depleted to	Replenishment
Existing Buildings/Change of Use with no site development	$ 1,800	$ 1,000	Current bills + $600
Up to 3,000 s.f. gross floor area	$ 3,125	$ 1,000	Current bills + $1,200
3,000 to 10,000 s.f. gross floor area	$ 3,000 + $0.50 per sq.ft. over 3,000	$ 2,500	Current bills + $3,000
Over 10,000 s.f. gross floor area	$ 9,000 + $0.50 per sq.ft. over 10,000	$ 2,500	Current bills + $3,000

ARCHITECTURAL REVIEW OR CERTIFICATE OF APPROPRIATENESS ***(if not currently before PB)***

* *if required by Chairman*	Initial Deposit	Depleted to	Replenishment
Single Family House*	$500	$250	Current bills + $250
All others*	$500	$250	Current bills + $250

APPLICATION PROCESSING RESTRICTION LAW

Affidavit of Property Owner

Property Owner: DKH Realty, LLC

If owned by a corporation, partnership or organization, please list names of persons holding over 5% interest.

List all properties in the City of Beacon that you hold a 5% interest in:

Applicant Address: PO Box 859, Goshen NY 10924

Project Address: 409 Fishkill Avenue, Beacon NY 12508

Project Tax Grid # 6055-80-403061, 399053, 406047, 411056, 416064 & 418071

Type of Application Site Plan, Special Use Permit, Subdivision

Please note that the property owner is the applicant. "Applicant" is defined as any individual who owns at least five percent (5%) interest in a corporation or partnership or other business.

I, Dwight Hawley, the undersigned owner of the above referenced property, hereby affirm that I have reviewed my records and verify that the following information is true.

1. No violations are pending for ANY parcel owned by me situated within the City of Beacon ✓
2. Violations are pending on a parcel or parcels owned by me situated within the City of Beacon N/A
3. ALL tax payments due to the City of Beacon are current ✓
4. Tax delinquencies exist on a parcel or parcels owned by me within the City of Beacon N/A
5. Special Assessments are outstanding on a parcel or parcels owned by me in the City of Beacon N/A
6. ALL Special Assessments due to the City of Beacon on any parcel owned by me are current ✓

Signature of Owner

MEMBER

Title if owner is corporation

Office Use Only:	NO	YES	Initial
Applicant has violations pending for ANY parcel owned within the City of Beacon (Building Dept.)	X		
ALL taxes are current for properties in the City of Beacon are current (Tax Dept.)	✓		
ALL Special Assessments, i.e. water, sewer, fines, etc. are current (Water Billing)		✓	

CITY OF BEACON
SITE PLAN SPECIFICATION FORM

Name of Application: 409 Fishkill Ave

PLEASE INDICATE WHETHER THE SITE PLAN DRAWINGS SHOW THE SUBJECT INFORMATION BY PLACING A CHECK MARK IN THE APPROPRIATE BOXES BELOW.		
	YES	**NO**
The site plan shall be clearly marked "Site Plan", it shall be prepared by a legally certified individual of firm, such as a Registered Architect or Professional Engineer, and it shall contain the following information:	X	
LEGAL DATA		
Name and address of the owner of record.	✓	
Name and address of the applicant (if other than the owner).	✓	
Name and address of person, firm or organization preparing the plan.	✓	
Date, north arrow, and written and graphic scale.	✓	
NATURAL FEATURES		
Existing contours with intervals of two (2) feet, referred to a datum satisfactory to the Planning Board.	✓	
Approximate boundaries of any areas subject to flooding or stormwater overflows.	n/a	
Location of existing watercourses, wetlands, wooded areas, rock outcrops, isolated trees with a diameter of eight (8) inches or more measured three (3) feet above the base of the trunk, and any other significant existing natural features.	✓	
EXISTING STRUCTURES, UTILITIES, ETC.		
Outlines of all structures and the location of all uses not requiring structures. Paved areas, sidewalks, and vehicular access between the site and public streets.	✓	
Locations, dimensions, grades, and flow direction of any existing sewers, culverts, water lines, as well as other underground and above ground utilities within and adjacent to the property.	✓	
Other existing development, including fences, retaining walls, landscaping, and screening.	✓	
Sufficient description or information to define precisely the boundaries of the property.	✓	
The owners of all adjoining lands as shown on the latest tax records.	✓	
The locations, names, and existing widths of adjacent streets and curb lines.	✓	
Location, width, and purpose of all existing and proposed easements, setbacks, reservations, and areas dedicated to private or public use within or adjacent to the properties.	✓	

PROPOSED DEVELOPMENT	YES	NO
The location, use and design of proposed buildings or structural improvements.	✓	
The location and design of all uses not requiring structures, such as outdoor storage (if permitted), and off-street parking and unloading areas.	✓	
Any proposed division of buildings into units of separate occupancy.	n/a	
The location, direction, power, and time of use for any proposed outdoor lighting.	✓	
The location and plans for any outdoor signs.	✓	
The location, arrangement, size(s) and materials of proposed means of ingress and egress, including sidewalks, driveways, or other paved areas.	✓	
Proposed screening and other landscaping including a planting plan and schedule prepared by a qualified individual or firm.	✓	
The location, sizes and connection of all proposed water lines, valves, and hydrants and all storm drainage and sewer lines, culverts, drains, etc.	✓	
Proposed easements, deed restrictions, or covenants and a notation of any areas to be dedicated to the City.	n/a	
Any contemplated public improvements on or adjoining the property.	✓	
Any proposed new grades, indicating clearly how such grades will meet existing grades of adjacent properties or the street.	✓	
Elevations of all proposed principal or accessory structures.	✓	
Any proposed fences or retaining walls.	n/a	
MISCELLANEOUS		
A location map showing the applicant's entire property and adjacent properties and streets, at a convenient scale.	✓	
Erosion and sedimentation control measures.	✓	
A schedule indicating how the proposal complies with all pertinent zoning standards, including parking and loading requirements.	✓	
An indication of proposed hours of operation.	✓	
If the site plan only indicates a first stage, a supplementary plan shall indicate ultimate development.	n/a	

For all items marked "NO" above, please explain below why the required information has not been provided:

Applicant/Sponsor Name: Cliff Sawyer

Signature: Cliff Sawyer

Date: 12/14/23

FOR OFFICE USE ONLY
Application #

CITY OF BEACON
1 Municipal Plaza, Beacon, NY
Telephone (845) 838-5000 · http://cityofbeacon.org/

ENTITY DISCLOSURE FORM

(This form must accompany every land use application and every application for a building permit or certificate of occupancy submitted by any entity)

Disclosure of the names and addresses of all persons or entities owning any interest or controlling position of any Limited Liability Company, Partnership, Limited Partnership, Joint Venture, Corporation or other business entity (hereinafter referred to as the "Entity") filing a land-use application with the City is required pursuant to Section 223-61.4 of the City Code of the City of Beacon. If any Member of the Entity is not a natural person, then the names and addresses as well as all other information sought herein must be supplied about the non-natural person member of that Entity, including names, addresses and Formation filing documents. Applicants shall submit supplemental sheets for any additional information that does not fit within the below sections, identifying the Section being supplemented.

SECTION A.

IF AFFIANT IS A PARTNERSHIP, JOINT VENTURE OR OTHER BUSINESS ENTITY, EXCEPT A CORPORATION:

Name of Entity	Address of Entity
Place where such business entity was created	Official Registrar's or Clerk's office where the documents and papers creating entity were filed
Date such business entity or partnership was created	Telephone Contact Information

IF AFFIANT IS A CORPORATION:

Name of Entity Soka Gakkai International – USA (entity is a religious corporation)	Telephone Contact Information (310) 260-8900
Principal Place of Business of Entity 606 Wilshire Blvd. Santa Monica, CA 90401	Place and Date of incorporation State of California, County of Los Angeles November 22, 1991
Method of Incorporation Articles of Incorporation	Official place where the documents and papers of incorporation were filed California Secretary of State's Office

SECTION B. List all persons, officers, limited or general partners, directors, members, shareholders, managers, and any others with any interest, mortgage, encumbrance or other interest (recorded or unrecorded) in or with the above referenced

Entity. List all persons to whom corporate stock has been pledged, mortgaged or encumbered and with whom any agreement has been made to pledge, mortgage or encumber said stock. Use a supplemental sheet to list additional persons.

Name	Resident Address	Resident Telephone Number	Nature and Extent of Interest
Not applicable for SGI-USA			

SECTION C. List all owners of record of the subject property or any part thereof.

Name	Residence or Business Address	Telephone Number	Date and Manner title was acquired	Date and place where the deed or document of conveyance was recorded or filed.
Not applicable for SGI-USA				

SECTION D. Is any owner, of record or otherwise, an officer, director, stockholder, agent or employee of any person listed in Section B-C?

☐ **YES** ☒ **NO**

Name	Employer	Position

SECTION E. Is any party identified in Sections A- C an officer, elected or appointed, or employee of the City of Beacon or related, by marriage or otherwise, to a City Council member, planning board member, zoning board of appeals member or employee of the City of Beacon ?

☐ **YES** ☒ **NO**

If yes, list every Board, Department, Office, agency or other position with the City of Beacon with which a party has a position, unpaid or paid, or relationship and identify the agency, title, and date of hire.

Agency	Title	Date of Hire, Date Elected, or Date Appointed	Position or Nature of Relationship

SECTION F. Was any person referred to in Sections A-D known by any other name within five (5) years preceding the date of the application?

☐ **YES** ☒ **NO**

Current Name	Other Names

SECTION G. List the names and addresses of each person, business entity, partnership and corporation in the chain of title of the subject premises for the five (5) years next preceding the date of the application.

Name	Address
Not applicable for SGI-USA	

SECTION H. If the applicant is not a record owner of the subject property, describe the applicant's interest in the subject property and the relationship the applicant has to the record owner(s) of the subject property.

Applicant has leased subject property. Applicant is a Tenant of the record Owner of the subject property.

SECTION I. If the applicant is a contract vendee, a duplicate original or photocopy of the full and complete contract of purchase, including all riders, modification and amendments thereto, shall be submitted with the application. Any sensitive or confidential information may be redacted from the contract prior to production.

SECTION J. Not applicable for SGI-USA

1. Where the record owner or contract vendee is a corporation, the following additional information shall be submitted:

Name of the Corporation	Telephone Contact Information
Principal Business Address	Place and Date of Incorporation
Method of Incorporation	Official place where the documents and papers of incorporation were filed

2. Please provide the following information for every incorporator, officer, director and shareholder of the corporation.

Name	**Residence or business address**	**Telephone number**
Not applicable		

3. Have any shares of the stock of the corporation or of any stockholder been pledged, mortgaged or encumbered?

☐ **YES** ☒ **NO**

If so, please list the name and address of each person having, holding, owning or claiming any such interest.

Name	**Address**

SECTION K. Have the present owners entered into a contract for the sale of all or any part of the subject property and, if in the affirmative, please provide a duplicate original or photocopy of the fully and complete contract of sale, including all riders, modifications and amendments thereto.

☐ **YES** ☒ **NO**

I, Cliff Sawyer being first duly sworn, according to law, deposes and says that I am (Title) V.P., an active and qualified member of the SGI-USA, a business duly authorized by law to do business in the State of New York, and that the statements made herein are true, accurate, and complete.

(Print) Cliff Sawyer

(Signature) Cliff Sawyer

FOR OFFICE USE ONLY
Application #

CITY OF BEACON
1 Municipal Plaza, Beacon, NY
Telephone (845) 838-5000 • http://cityofbeacon.org/

ENTITY DISCLOSURE FORM

(This form must accompany every land use application and every application for a building permit or certificate of occupancy submitted by any entity)

Disclosure of the names and addresses of all persons or entities owning any interest or controlling position of any Limited Liability Company, Partnership, Limited Partnership, Joint Venture, Corporation or other business entity (hereinafter referred to as the "Entity") filing a land-use application with the City is required pursuant to Section 223-61.4 of the City Code of the City of Beacon. If any Member of the Entity is not a natural person, then the names and addresses as well as all other information sought herein must be supplied about the non-natural person member of that Entity, including names, addresses and Formation filing documents. Applicants shall submit supplemental sheets for any additional information that does not fit within the below sections, identifying the Section being supplemented.

SECTION A.

IF AFFIANT IS A PARTNERSHIP, JOINT VENTURE OR OTHER BUSINESS ENTITY, EXCEPT A CORPORATION:

Name of Entity	Address of Entity
Place where such business entity was created	Official Registrar's or Clerk's office where the documents and papers creating entity were filed
Date such business entity or partnership was created	Telephone Contact Information

IF AFFIANT IS A CORPORATION:

Name of Entity DKH Realty LLC	Telephone Contact Information 845-291-1998
Principal Place of Business of Entity 409 Fishkill Ave Beacon NY 12508	Place and Date of incorporation Albany NY 06-26-2000
Method of Incorporation Dept of State Filing	Official place where the documents and papers of incorporation were filed State of NY Albany

SECTION B. List all persons, officers, limited or general partners, directors, members, shareholders, managers, and any others with any interest, mortgage, encumbrance or other interest (recorded or unrecorded) in or with the above referenced

Entity. List all persons to whom corporate stock has been pledged, mortgaged or encumbered and with whom any agreement has been made to pledge, mortgage or encumber said stock. Use a supplemental sheet to list additional persons.

Name	Resident Address	Resident Telephone Number	Nature and Extent of Interest

SECTION C. List all owners of record of the subject property or any part thereof.

Name	Residence or Business Address	Telephone Number	Date and Manner title was acquired	Date and place where the deed or document of conveyance was recorded or filed.
Dwight Hurley	409 Fishkill Ave Beacon NY 12508	914-474-3305	06-26-2000	City of Beacon NYS Library

SECTION D. Is any owner, of record or otherwise, an officer, director, stockholder, agent or employee of any person listed in Section B-C?

☐ YES ☑ NO

Name	Employer	Position

SECTION E. Is any party identified in Sections A- C an officer, elected or appointed, or employee of the City of Beacon or related, by marriage or otherwise, to a City Council member, planning board member, zoning board of appeals member or employee of the City of Beacon?

☐ YES ☑ NO

If yes, list every Board, Department, Office, agency or other position with the City of Beacon with which a party has a position, unpaid or paid, or relationship and identify the agency, title, and date of hire.

Agency	Title	Date of Hire, Date Elected, or Date Appointed	Position or Nature of Relationship

SECTION F. Was any person referred to in Sections A-D known by any other name within five (5) years preceding the date of the application?

☐ **YES** ☑ **NO**

Current Name	Other Names

SECTION G. List the names and addresses of each person, business entity, partnership and corporation in the chain of title of the subject premises for the five (5) years next preceding the date of the application.

Name	Address

SECTION H. If the applicant is not a record owner of the subject property, describe the applicant's interest in the subject property and the relationship the applicant has to the record owner(s) of the subject property.

SECTION I. If the applicant is a contract vendee, a duplicate original or photocopy of the full and complete contract of purchase, including all riders, modification and amendments thereto, shall be submitted with the application. Any sensitive or confidential information may be redacted from the contract prior to production.

SECTION J.

1. Where the record owner or contract vendee is a corporation, the following additional information shall be submitted:

Name of the Corporation	Telephone Contact Information
Principal Business Address	Place and Date of Incorporation
Method of Incorporation	Official place where the documents and papers of incorporation were filed

2. Please provide the following information for every incorporator, officer, director and shareholder of the corporation.

Name	**Residence or business address**	**Telephone number**

3. Have any shares of the stock of the corporation or of any stockholder been pledged, mortgaged or encumbered?

☐ **YES** ☑ **NO**

If so, please list the name and address of each person having, holding, owning or claiming any such interest.

Name	**Address**

SECTION K. Have the present owners entered into a contract for the sale of all or any part of the subject property and, if in the affirmative, please provide a duplicate original or photocopy of the fully and complete contract of sale, including all riders, modifications and amendments thereto.

☐ **YES** ☒ **NO**

I, _____ being first duly sworn, according to law, deposes and says that I am (Title) _____, an active and qualified member of the _____, a business duly authorized by law to do business in the State of New York, and that the statements made herein are true, accurate, and complete.

(Print) DWIGHT HEATLEY

(Signature) _____

APPLICATION FOR SUBDIVISION APPROVAL

Submit to Planning Board Secretary, One Municipal Plaza, Suite One, Beacon, New York 12508

IDENTIFICATION OF APPLICANT

Name: DKH Realty, LLC

Address: PO Box 859

Goshen, NY 10924

Signature: _____

Date: 1/23/24

Phone: 845-291-1998

(For Official Use Only)

	Date	Initials
Preliminary Application Rec'd		
Application Fee:		
Public Hearing		
Preliminary Plat Approved:		
Final Plat Approved:		
Recreation Fee:		
Performance Bond:		

IDENTIFICATION OF REPRESENTATIVE / DESIGN PRFESSIONAL

Name: Daniel Koehler, P.E.

Address: 174 Main Street

Beacon, NY 12508

Phone: 845-440-6926

Fax: _____

Email address: dkoehler@hudsonlanddesign.com

IDENTIFICATION OF SUBJECT PROPERTY:

Subdivision name or identifying title:

409 Fishkill Ave Site Development

Street which property abuts: Fishkill Avenue (NYS Route 52)

Current Tax Map Designation: Section 6055 Block 80 Lot(s) 411056 & 416064

Property (does) (does not) connect directly into a (State) (County) highway.

Land in subdivision (is) (is not) within 500 feet of a Municipal boundary.

Total area of property is +/- 0.44 acres

ITEMS TO ACCOMPANY THIS APPLICATION

a. One electronic and five (5) **folded** copies of a subdivision plat showing the location of the subject property and the proposed development with respect to neighboring properties and developments.

b. An application fee, payable to the City of Beacon, computed per the attached fee schedule.

c. An initial escrow amount, payable to the City of Beacon, as set forth in the attached fee schedule.

APPLICATION FEES

Site Plan	**Residential $500 + $250 per dwelling unit** **Commercial $500 + $250 per 1,000 s.f.**
Special Use Permit	**Residential $500 + $250 per dwelling unit** **Commercial $500 + $250 per 1,000 s.f.**
Subdivision	**$ 750 for 2-4 lots + $100 per lot** **$1,000 for 5 or more lots + $300 per lot**

ESCROW FEES

ALL SUBDIVISIONS, AND RESIDENTIAL SITE PLAN AND SUP APPLICATIONS

No. of Lots or Dwelling Units	Initial Deposit	Depleted to	Replenishment
1-5 (including lot-line realignment)	$ 3,000	$ 1,000	Current bills + $1,200
6-15	$ 9,000	$ 2,500	Current bills + $1,200
Over 15	$ 18,000	$ 5,000	Current bills + $6,000

NON-RESIDENTIAL SITE PLAN AND SUP APPLICATIONS

	Initial Deposit	Depleted to	Replenishment
Existing Buildings/Change of Use with no site development	$ 1,800	$ 1,000	Current bills + $600
Up to 3,000 s.f. gross floor area	$ 3,125	$ 1,000	Current bills + $1,200
3,000 to 10,000 s.f. gross floor area	$ 3,000 + $0.50 per sq.ft. over 3,000	$ 2,500	Current bills + $3,000
Over 10,000 s.f. gross floor area	$ 9,000 + $0.50 per sq.ft. over 10,000	$ 2,500	Current bills + $3,000

ARCHITECTURAL REVIEW OR CERTIFICATE OF APPROPRIATENESS ***(if not currently before PB)***

* *if required by Chairman*	Initial Deposit	Depleted to	Replenishment
Single Family House*	$500	$250	Current bills + $250
All others*	$500	$250	Current bills + $250

APPLICATION PROCESSING RESTRICTION LAW

Affidavit of Property Owner

Property Owner: DKH Realty, LLC

If owned by a corporation, partnership or organization, please list names of persons holding over 5% interest.

List all properties in the City of Beacon that you hold a 5% interest in:

Applicant Address: PO Box 859, Goshen NY 10924

Project Address: 409 Fishkill Avenue, Beacon NY 12508

Project Tax Grid # 6055-80-403061, 399053, 406047, 411056, 416064 & 418071

Type of Application Site Plan, Special Use Permit, Subdivision

Please note that the property owner is the applicant. "Applicant" is defined as any individual who owns at least five percent (5%) interest in a corporation or partnership or other business.

I, Dwight Hawley, the undersigned owner of the above referenced property, hereby affirm that I have reviewed my records and verify that the following information is true.

1. No violations are pending for ANY parcel owned by me situated within the City of Beacon ✓
2. Violations are pending on a parcel or parcels owned by me situated within the City of Beacon N/A
3. ALL tax payments due to the City of Beacon are current ✓
4. Tax delinquencies exist on a parcel or parcels owned by me within the City of Beacon N/A
5. Special Assessments are outstanding on a parcel or parcels owned by me in the City of Beacon N/A
6. ALL Special Assessments due to the City of Beacon on any parcel owned by me are current ✓

Signature of Owner

MEMBER

Title if owner is corporation

Office Use Only:	NO	YES	Initial
Applicant has violations pending for ANY parcel owned within the City of Beacon (Building Dept.)	X		NLP
ALL taxes are current for properties in the City of Beacon are current (Tax Dept.)	✓		
ALL Special Assessments, i.e. water, sewer, fines, etc. are current (Water Billing)		✓	

CITY OF BEACON
PRELIMINARY SUBDIVISION PLAT
AND CONSTRUCTION PLANS SPECIFICATION FORM

Name of Application: 409 Fishkill Ave Site Development

PRELIMINARY SUBDIVISION PLAT	YES	NO
The preliminary plat shall be clearly marked "Preliminary Plat", shall be drawn to a convenient scale but not less than 1" = 100', and shall contain the following information:	x	
Proposed subdivision name or identifying title, name, and address of property owner and subdivider (if other than owner), name and address of the surveyor and/or engineer preparing the plan, scale, approximate true North point, and date.	x	
The approximate location and dimensions of all property lines, the total acreage of the proposed subdivision, the location of any zoning, special district or municipal boundary lines affecting the subdivision, and the names of owners of record of properties adjoining and directly across the street from proposed subdivision.	x	
The location of all existing structures and pertinent features, including railroads, water bodies, water courses, wetlands, rock outcroppings, wooded areas, major trees, and stone walls, that may influence the design of the subdivision, plus accurate topography at a vertical contour interval of not more than two (2) feet. The topographic data shall be determined by field survey unless the Planning Board specifically waives this requirement and/or permits the substitution of topographic information obtained from other sources determined satisfactory for the particular case.	X	
The location and status of existing streets or private roads, easements and rights-of-way (if any), proposals for the layout of new streets or private roads (including widths and approximate curve radii) and any proposed easements, rights-of-way and/or reservations.	x	
The names of existing streets or private roads and proposed names for new streets or private roads.	X	
The proposed arrangement of lots, including identifying numbers and approximate area and dimensions of each.	x	
Location, size and nature of any area proposed to be reserved for park purposes.	X	
A site location sketch, at a scale of one inch equals 400 feet, showing the general situation within 1,000 feet of the applicant's property with respect to surrounding properties, streets and private roads.	x	
Where the preliminary plat includes only a portion of an applicant's contiguous holding, the applicant shall also indicate, on a sketch at a scale of not less than one inch equals 200 feet, the probable future street or private road system, lot arrangement and location of park and other reservations for the remaining portion of the tract. Such sketch shall be for the purpose of guiding the Planning Board in reviewing the proposed preliminary plat and shall include topographic data with a vertical contour interval of not more than five feet plus any other information determined necessary by the Planning Board.	X	
Such additional information as may be required by Chapter 195 – Subdivision of Land; Chapter 223 – Zoning; or the Planning Board.		

PRELIMINARY CONSTRUCTION PLANS	YES	NO
The preliminary construction plans shall be drawn at the same scale as the preliminary plat and shall include the following information:	X	
Location and sizes of any existing water, sewer storm drainage and other utility lines and structures within and nearby the proposed subdivision.	X	
The proposed system for the provision of water supply and fire protection facilities, sewage disposal, stormwater drainage, and other utility services.	X	
Proposed street or private road profiles and cross-sections showing the approximate grade of proposed streets or private roads, the relationship of existing to proposed grades, and the proposed grades, and the proposed vertical curvature along the center line of all new streets or private roads.	X	
Location of all existing and proposed monuments and other subdivision improvements.	X	
Such additional information as may be required by this chapter, the Zoning chapter, or the Planning Board.	X	

CITY OF BEACON
FINAL SUBDIVISION PLAT
AND CONSTRUCTION PLANS SPECIFICATION FORM

Name of Application: 409 Fishkill Ave Site Development

FINAL SUBDIVISION PLAT	**YES**	**NO**
The final subdivision plat shall be drawn clearly and legibly on transparent tracing cloth with black waterproof ink, at a scale no smaller than one inch equals 100 feet but preferably at a scale of one inch equals 50 feet. The sheet size shall not exceed 36 inches by 48 inches. If the size of proposed subdivision required a drawing larger than this, two or more sheets may be submitted, with match lines clearly indicated, and an index map shall be prepared on the same size sheet.	X	
The final plat shall contain the following information:		
Proposed subdivision name or identifying title, name, and address of owner of record and of subdivider (if other than owner), certification and seal of the registered engineer or licensed land surveyor who prepared the plat, names of the owners of record of adjoining properties and of properties directly across the street or private road, graphic scale, approximate true North point, and date.	X	
The location and dimensions of all boundary lines of the proposed subdivision, and all existing and proposed streets, private roads, lot lines, easements and rights-of-way, with sufficient data to readily determine the location, bearing and length of all such lines and to reproduce such lines upon the ground.	x	
The names of all existing and proposed streets and private roads.	X	
The locations of all water bodies and watercourses.		n/a
The location of all existing buildings, including identification of all buildings to be removed as a condition of plat approval.	x	
The total acreage included in the entire subdivision, and the identification number and acreage of all lots and land reservations within the proposed subdivision.	X	
Location of all existing and proposed monuments.	X	
A site location map, at a scale of one inch equals 400 feet, showing the location of the subject property with respect to neighboring properties, streets and private roads.	X	
Notations explaining any drainage, sight slope, street widening, park area or other reservations or easements, including any self-imposed restrictions or covenants.	x	
Endorsement of approval by the Dutchess County Health Department.	X	
Plan for the provisional delivery of mail, as approved by the local postmaster.		n/a
Endorsement of the owner as follows: "Approved for filing: _____ _____" Owner Date	X	

FINAL SUBDIVISION PLAT *(continued)*	**YES**	**NO**
Form for endorsement by Planning Board Chairman as follows: "Approved by Resolution of the Planning Board of the City of Beacon, New York, on the _____ day of _____, 20_____, subject to All requirements and conditions of said Resolution. Any change, erasure, modification or revision of this plat, as approved, shall void this approval. Signed this _____ day of _____, 20_____, by _____, Chairman _____, Secretary In absence of the Chairman or Secretary, the Acting Chairman or Acting Secretary Respectively may sign in this place.	X	
Such additional information as may be required by Chapter 195 – Subdivision of Land; Chapter 223 – Zoning; or the Planning Board.		
Stormwater pollution prevention plan. A stormwater pollution prevention plan consistent with the requirements of Chapter 190 and with the terms of preliminary plan approval shall be required for final subdivision plat approval. The SWPPP shall meet the performance and design criteria and standards in Chapter 190, Article II. The approved final subdivision plat shall be consistent with the provisions of Chapter 190.		n/a

FINAL CONSTRUCTION PLANS	**YES**	**NO**
Final construction plans and profiles shall be prepared for all proposed streets, private roads and other required improvements. Plans shall be drawn at the same scale as the final plat and on the same size sheets, but not on the same sheets. The following information shall be shown:		X
Plans and profiles showing the location and a typical cross-section of street and/or private road pavements including curbs and gutters, sidewalks, manholes and catch basins; the location of street or private road trees, lighting and signs; the location, size and invert elevations of existing and proposed sanitary sewers, stormwater drains and fire hydrants; the location and size of all water, gas or other underground utilities or structures; and the location and design of any other required improvements.	X	
Profiles showing existing and proposed elevations along the center line of all streets and private roads. Where a proposed street or private road intersects an existing street or private road, the elevation along the center line of the existing street or private road within 100 feet of intersection, shall be shown. All elevations must be referred to established U.S. Government of approved local benchmarks, where they exist within ½ mile of the boundary of the subdivision.		X
The Planning Board may require, where steep slopes exist, cross-sections showing existing and proposed elevations of all new streets and private roads every 100 feet at five points on a line at right angles to the center line of the street or private road, said elevation points to be at the center line of the street or private road, each property line, and points 30 feet inside each property line.		X
Location, size, elevation and other appropriate description of any existing facilities which will be connected to proposed facilities and utilities within the subdivision.	X	

FINAL CONSTRUCTION PLANS ***(continued)***		
Where the design of the subdivision requires the regarding of land, the regarding of land, the regraded contours shall be shown along with estimates of the quantity of material to be added or removed and the proposed measures to be implemented by the subdivider to rehabilitate the disturbed area or areas.	X	
Title of all sheets, name, address, signature and seal of licensed engineer preparing the construction plans, the date prepared, including revisions dates if any, approximate true North point, scale, and consecutive numbering as sheet _____ of _____.	X	
A notation of approval, on all sheets as follows "Approved by: _____ _____ Owner Date and _____ _____ Planning Board Chairman Date"	X	
Such additional information as may be required by Chapter 195 – Subdivision of Land; Chapter 223 – Zoning; or the Planning Board.	X	

For all items marked "NO" above, please explain below why the required information has not been provided:

_____

_____

_____

_____

_____

_____

Applicant/Sponsor Name: Dwight Healey

Signature: _____

Date: 1/23/24

FOR OFFICE USE ONLY
Application #

CITY OF BEACON
1 Municipal Plaza, Beacon, NY
Telephone (845) 838-5000 • http://cityofbeacon.org/

ENTITY DISCLOSURE FORM

(This form must accompany every land use application and every application for a building permit or certificate of occupancy submitted by any entity)

Disclosure of the names and addresses of all persons or entities owning any interest or controlling position of any Limited Liability Company, Partnership, Limited Partnership, Joint Venture, Corporation or other business entity (hereinafter referred to as the "Entity") filing a land-use application with the City is required pursuant to Section 223-61.4 of the City Code of the City of Beacon. If any Member of the Entity is not a natural person, then the names and addresses as well as all other information sought herein must be supplied about the non-natural person member of that Entity, including names, addresses and Formation filing documents. Applicants shall submit supplemental sheets for any additional information that does not fit within the below sections, identifying the Section being supplemented.

SECTION A.

IF AFFIANT IS A PARTNERSHIP, JOINT VENTURE OR OTHER BUSINESS ENTITY, EXCEPT A CORPORATION:

Name of Entity	Address of Entity
Place where such business entity was created	Official Registrar's or Clerk's office where the documents and papers creating entity were filed
Date such business entity or partnership was created	Telephone Contact Information

IF AFFIANT IS A CORPORATION:

Name of Entity DKH Realty LLC	Telephone Contact Information 845-291-1998
Principal Place of Business of Entity 409 Fishkill Ave Beacon NY 12508	Place and Date of incorporation Albany NY 06-26-2000
Method of Incorporation Dept of State Filing	Official place where the documents and papers of incorporation were filed State of NY Albany

SECTION B. List all persons, officers, limited or general partners, directors, members, shareholders, managers, and any others with any interest, mortgage, encumbrance or other interest (recorded or unrecorded) in or with the above referenced

Entity. List all persons to whom corporate stock has been pledged, mortgaged or encumbered and with whom any agreement has been made to pledge, mortgage or encumber said stock. Use a supplemental sheet to list additional persons.

Name	Resident Address	Resident Telephone Number	Nature and Extent of Interest

SECTION C. List all owners of record of the subject property or any part thereof.

Name	Residence or Business Address	Telephone Number	Date and Manner title was acquired	Date and place where the deed or document of conveyance was recorded or filed.
Dwight Hurley	409 Fishkill Ave Beacon NY 12508	914-474-3305	06-26-2000	City of Beacon NYS Library

SECTION D. Is any owner, of record or otherwise, an officer, director, stockholder, agent or employee of any person listed in Section B-C?

☐ YES ☑ NO

Name	Employer	Position

SECTION E. Is any party identified in Sections A- C an officer, elected or appointed, or employee of the City of Beacon or related, by marriage or otherwise, to a City Council member, planning board member, zoning board of appeals member or employee of the City of Beacon?

☐ YES ☑ NO

If yes, list every Board, Department, Office, agency or other position with the City of Beacon with which a party has a position, unpaid or paid, or relationship and identify the agency, title, and date of hire.

Agency	Title	Date of Hire, Date Elected, or Date Appointed	Position or Nature of Relationship

SECTION F. Was any person referred to in Sections A-D known by any other name within five (5) years preceding the date of the application?

☐ **YES** ☑ **NO**

Current Name	Other Names

SECTION G. List the names and addresses of each person, business entity, partnership and corporation in the chain of title of the subject premises for the five (5) years next preceding the date of the application.

Name	Address

SECTION H. If the applicant is not a record owner of the subject property, describe the applicant's interest in the subject property and the relationship the applicant has to the record owner(s) of the subject property.

SECTION I. If the applicant is a contract vendee, a duplicate original or photocopy of the full and complete contract of purchase, including all riders, modification and amendments thereto, shall be submitted with the application. Any sensitive or confidential information may be redacted from the contract prior to production.

SECTION J.

1. Where the record owner or contract vendee is a corporation, the following additional information shall be submitted:

Name of the Corporation	Telephone Contact Information
Principal Business Address	Place and Date of Incorporation
Method of Incorporation	Official place where the documents and papers of incorporation were filed

2. Please provide the following information for every incorporator, officer, director and shareholder of the corporation.

Name	**Residence or business address**	**Telephone number**

3. Have any shares of the stock of the corporation or of any stockholder been pledged, mortgaged or encumbered?

☐ **YES** ☑ **NO**

If so, please list the name and address of each person having, holding, owning or claiming any such interest.

Name	**Address**

SECTION K. Have the present owners entered into a contract for the sale of all or any part of the subject property and, if in the affirmative, please provide a duplicate original or photocopy of the fully and complete contract of sale, including all riders, modifications and amendments thereto.

☐ **YES** ☒ **NO**

I, _____ being first duly sworn, according to law, deposes and says that I am (Title) _____, an active and qualified member of the _____, a business duly authorized by law to do business in the State of New York, and that the statements made herein are true, accurate, and complete.

(Print) DWIGHT HEATH

(Signature) _____

AREA MAP SCALE 1 in. = 400 ft.

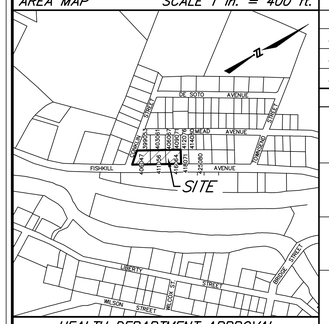


TABLE OF AREAS

TAX PARCEL	EXISTING AREA (SF)	LESS PARCEL TO CITY OF BEACON (SF)	RESULTANT AREA (SF)
406047	10,419	298	10,121
411056	9,798	0	TM 411056 & 416064 Combined 19,530
416064	9,732	0	

ADJOINERS LIST

418071 DKH Realty LLC PO Box 859 Goshen, NY 10924
406047 DKH Realty LLC PO Box 859 Goshen, NY 10924
399053 DKH Realty LLC PO Box 859 Goshen, NY 10924
406067 DKH Realty LLC PO Box 859 Goshen, NY 10924
406047 Laurie A. Gonzalez 14 Mead Avenue Beacon, NY 12508
409071 Howard A. Banick 18 Mead Avenue Beacon, NY 12508
409071 Audrey Henderson & Lisa M. Strong 22 Mead Avenue Beacon, NY 12508

HEALTH DEPARTMENT APPROVAL

This plan does not constitute a Realty Subdivision as defined by Article XI, Title II Section 1115, of the Public Health Law of the State of New York, and Article XI of the Dutchess County Sanitary Code.

Permission is hereby granted for the filing of this map with the clerk of Dutchess County. Approval for arrangements for water supply and/or sewage disposal is neither sought nor granted.

_____
Authorized Representative of the Commissioner of Health

PLANNING BOARD APPROVAL

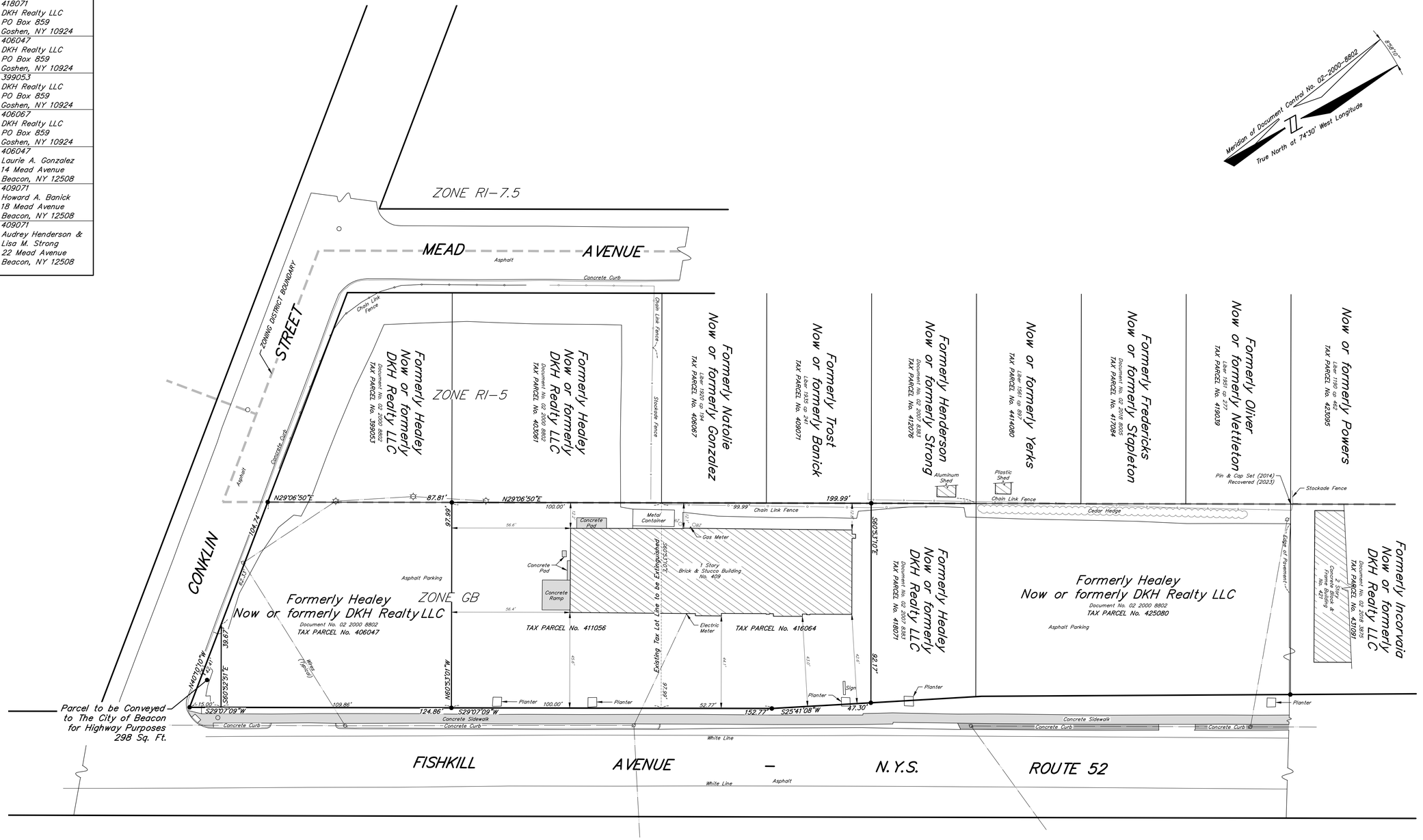
Approved by the Planning Board of the City of Beacon, Dutchess County, N.Y. by resolution dated _____, 2024.
Subject to the requirements and conditions of said resolution. Any change, erasure, modification or revision to this Plat, as approved, shall void this approval.

Signed this ____ day of _____, 2024.

_____
Chair of the Planning Board

NOTES

1. Unauthorized alteration or addition to a document prepared by a licensed Land Surveyor or licensed Professional Engineer is a violation of Section 7209, Sub-Division 2 of the New York State Education Law.
2. The meridian and coordinate values hereon refer to the New York State Coordinate System, East Zone (NAS 83) expressed in U.S. Survey Feet. The distances shown on this survey are grid distances. They have been scaled by a grid factor (scale factor x sea level factor) of 0.99991662. To obtain ground distances, divide the distances on this map by the grid factor. To obtain ground area divide the area on this map by the square of the grid factor.
3. The premises hereon is a portion of those lands described in a deed recorded in the Dutchess County Clerk's Document No. 02 2000 8802 (Healy to DKH Realty LLC).



Meridian of Document Control No. 02-2000-8802 — 8°38'07" — True North at 74°30' West Longitude

REVISIONS

See Title	R01	Original Drawing.

SURVEYED & PREPARED BY

BADEY & WATSON
Surveying & Engineering, P.C.
3063 Route 9
Cold Spring, NY 10516
www.Badey-Watson.com
845.265.9217
845.265.4428 (Fax)
877.3.141593 (Toll Free)

SURVEYOR	OWNER & APPLICANT	OWNERS' APPROVAL	PROPERTY DATA	
License No. 49789	DKH REALTY LLC PO Box 859 Goshen, NY 10924	The undersigned, owners of the property hereon, states that they are familiar with this map, its contents and its legends and hereby consents to the filing of this map. Signed this ____ day of _____, 2024. _____	Tax Map Designation: 406047, 411056 & 416064 Zoning District: GB & R1-5 Total Area: 29,949 Sq. Ft.	ORIGINAL FILED IN THE DUTCHESS COUNTY CLERK'S OFFICE DATE : _____ MAP No. _____

NOTE:
THE SOLE PURPOSE OF THIS PLAT IS TO COMBINE TAX PARCEL 411056 AND TAX PARCEL 416064 INTO ONE PARCEL AND TO SHOW A PARCEL TO BE CONVEYED TO THE CITY OF BEACON FOR HIGHWAY PURPOSES.

CONSOLIDATION & DEDICATION PLAT
PREPARED FOR
DKH REALTY LLC
SITUATE IN THE
CITY OF BEACON
DUTCHESS COUNTY
NEW YORK

SCALE 1 in. = 20 ft. SEPTEMBER 26, 2023

We hereby certify that this map is based on a survey completed by us on September 26, 2023 that this map was completed on January 30, 2024 and that the survey was prepared in accordance with the existing Code of Practice for Land Surveys adopted by The New York State Association of Professional Land Surveyors, Inc.

STATE OF NEW YORK — STEPHEN R. MILLER — 49789 — LICENSED LAND SURVEYOR

BADEY & WATSON
Surveying & Engineering, D.P.C.
by
NEW YORK STATE LICENSED LAND SURVEYOR
LICENSE No. 49789

PRINTED
January 30, 2024
BADEY & WATSON
Surveying & Engineering, D.P.C.

FILE No. 14-105

T.M. : Varies
Drawing Name: CM27195__R01_V22.DWG Layout: CONS W.O. No. 27195 Checked by SRM Spell checked by JFT Drawn by JFT

Dutchess County Clerk

DUTCHESS COUNTY CLERK RECORDING PAGE

RECORD & RETURN TO:

ROBERT FINK
POB 900
GOSHEN NY 10924

RECORDED: 10/02/2000

AT: 11:24:56

DOCUMENT #: 02 2000 8802

RECEIVED FROM: COMMONWEALTH

GRANTOR: HEALEY DWIGHT K
GRANTEE: DKH REALTY LLC

RECORDED IN: DEED
INSTRUMENT TYPE:

TAX
DISTRICT: CITY OF BEACON

EXAMINED AND CHARGED AS FOLLOWS:

RECORDING CHARGE: 60.00

NUMBER OF PAGES: 6

TRANSFER TAX AMOUNT:

TRANSFER TAX NUMBER: #001694

E & A FORM: Y

TP-584: Y

*** DO NOT DETACH THIS PAGE
*** THIS IS NOT A BILL

COUNTY CLERK BY: DAP /____
RECEIPT NO: R55674
BATCH RECORD: A00085

RICHARD M. ANDERSON
County Clerk

0 2 2 0 0 0 8 8 0 2

tom@c Doc #: 0220008802 Printed Page 1 of 6

LR001192(NI)

NY005 - Bargain and Sale Deed with Covenant against Grantor's Acts Individual or Corporation (Single Sheet) (NYBTU 8002)

CONSULT YOUR LAWYER BEFORE SIGNING THIS INSTRUMENT – THIS INSTRUMENT SHOULD BE USED BY LAWYERS ONLY

51 6' 6' 30' 60'

THIS INDENTURE, made the 4 day of August, in the year Two Thousand

BETWEEN DWIGHT K. HEALEY, 5 Andrea Court, Goshen, New York

party of the first part, and DKH REALTY LLC, 409-410 Fishkill Avenue, Beacon, New York

party of the second part,

WITNESSETH, that the party of the first part, in consideration of Ten Dollars and other valuable consideration paid by the party of the second part, does hereby grant and release unto the party of the second part, the heirs or successors and assigns of the party of the second part forever,

ALL that certain plot, piece or parcel of land, with the buildings and improvements thereon erected, situate, lying and being in the

See Schedule "A" Annexed.

Tax Map Designation

Dist.

Sec. 055

Blk. 80

Lot(s)

9053
6047
3061
1056
6064
6071
5080
4048

This conveyance is made and accepted subject to an indebtedness secured by certain mortgages upon said premises more fully set forth on Schedule "B", upon which there is an unpaid principal balance of $1,215,703.60, with interest from 7/1/00, in the amount of $8905.82, a total sum of $1,224,609.42 which said mortgage debt the party of the second part hereby assumes and agrees to pay, as part of the purchase price of the above described premises, and the party of the second part hereby executes and acknowledges this instrument for the purpose of complying with the provisions of Section 5-705 of the General Obligations Law.

TOGETHER with all right, title and interest, if any, of the party of the first part of, in and to any streets and roads abutting the above-described premises to the center lines thereof; **TOGETHER** with the appurtenances and all the estate and rights of the party of the first part in and to said premises; **TO HAVE AND TO HOLD** the premises herein granted unto the party of the second part, the heirs or successors and assigns of the party of the second part forever.

AND the party of the first part covenants that the party of the first part has not done or suffered anything whereby the said premises have been incumbered in any way whatever, except as aforesaid.

AND the party of the first part, in compliance with Section 13 of the Lien Law, covenants that the party of the first part will receive the consideration for this conveyance and will hold the right to receive such consideration as a trust fund to be applied first for the purpose of paying the cost of the improvement and will apply the same first to the payment of the cost of the improvement before using any part of the total of the same for any other purpose.

The word "party" shall be construed as if it read "parties" whenever the sense of this indenture so requires.

IN WITNESS WHEREOF, the party of the first part has duly executed this deed the day and year first above written.

IN PRESENCE OF:

DWIGHT K. HEALEY

DKH REALTY LLC

By: DWIGHT K. HEALEY CEO

tom@c Doc #: 0220008802 Printed Page 2 of 6

USE ACKNOWLEDGMENT FORM BELOW WITHIN NEW YORK STATE ONLY:

State of New York, County of Orange } **ss.:**

On the 4 day of August in the year 2000 before me, the undersigned, personally appeared Dwight K. Healey,

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

ROBERT W. FINK
NOTARY PUBLIC, State of New York
No. 02FI4502806
Qualified in Orange County
Commission Expires April 10, 2001

ACKNOWLEDGMENT FORM FOR USE WITHIN NEW YORK STATE ONLY:
{New York Subscribing Witness Acknowledgment Certificate}

State of New York, County of } **ss.:**

On the day of in the year before me, the undersigned, personally appeared

,

the subscribing witness to the foregoing instrument, with whom I am personally acquainted, who, being by me duly sworn, did depose and say that he/she/they reside(s) in

(if the place of residence is in a city, include the street and street number, if any, thereof); that he/she/they know(s)

to be the individual described in and who executed the foregoing instrument; that said subscribing witness was present and saw said

execute the same; and that said witness at the same time subscribed his/her/their name(s) as a witness thereto.

USE ACKNOWLEDGMENT FORM BELOW WITHIN NEW YORK STATE ONLY:

State of New York, County of Orange } **ss.**

On the 4 day of August, 2000 in the year before me, the undersigned, personally appeared Dwight K. Healey,

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

ROBERT W. FINK
NOTARY PUBLIC, State of New York
No. 02FI4502806
Qualified in Orange County
Commission Expires April 10, 2001

ACKNOWLEDGMENT FORM FOR USE OUTSIDE NEW YORK STATE ONLY:
{Out of State or Foreign General Acknowledgment Certificate}

. . . . . } **ss.:**
{Complete Venue with State, Country, Province or Municipality}

On the day of in the year before me, the undersigned, personally appeared

,

personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name(s) is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), that by his/her/ their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument, and that such individual made such appearance before the undersigned in the

(Insert the city or other political subdivision and the state or country or other place the acknowledgment was taken).

BARGAIN & SALE DEED
WITH COVENANTS AGAINST GRANTOR'S ACTS

TITLE NO.

DWIGHT K. HEALEY

TO

DKH REALITY LLC

DISTRICT
SECTION
BLOCK
LOT
COUNTY OR TOWN

RECORDED AT REQUEST OF
Fidelity National Title Insurance Company of New York
RETURN BY MAIL TO

ROBERT W. FINK
P.O. BOX 900
Goshen, NY 10924-0900

FIDELITY NATIONAL TITLE INSURANCE COMPANY OF NEW YORK
INCORPORATED 1928
"Appreciate the Fidelity Difference"
Member New York State Land Title Association

RESERVE THIS SPACE FOR USE OF RECORDING OFFICE

tom@c Doc #: 0220008802 Printed Page 3 of 6

Dutchess County Clerk

LEGAL DESCRIPTION

PARCEL I

ALL THAT TRACT OR PARCEL OF LAND SITUATED IN THE CITY OF BEACON, COUNTY OF DUTCHESS, STATE OF NEW YORK BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT, SAID BEING THE INTERSECTION OF THE EASTERLY LINE OF CONKLIN STREET WITH THE NORTHERLY LINE OF FISHKILL AVENUE AND RUNNING THENCE ALONG SAID CONKLIN STREET; NORTH 31°12'02" WEST 211.58 FEET, THENCE ALONG THE SOUTHERLY LINE OF MEAD AVENUE NORTH 38°05'00" EAST 150.00 FEET; THENCE ALONG LANDS NOW OR FORMERLY NATOLIE (LIBER 656 CP 318) SOUTH 51°55'00" EAST 100.00 FEET; THENCE STILL ALONG LANDS OF SAID NATOLIE, AND ALONG LANDS NOW OR FORMERLY TROST (LIBER 1247 CP 357) HENDERSON (LIBER 616 CP 104) YERKS (LIBER 1135 CP 74) FREDERICKS (LIBER 866 CP 29) AND OLIVIER (LIBER 1473 CP 426) NORTH 38°05'00" EAST 300.00 FEET; THENCE ALONG LANDS NOW OR FORMERLY INCORVAIA (LIBER 1546 CP 519) SOUTH 51°55'00" EAST 90.88 FEET; THENCE ALONG SAID NORTHERLY LINE OF FISHKILL AVENUE THE FOLLOWING; SOUTH 37°38'09" WEST 150.00 FEET SOUTH 34°40'21" WEST 100 FEET AND SOUTH 18°06'14" WEST 275.03 FEET TO THE POINT OF BEGINNING.

PARCEL II

ALL THAT TRACT OR PARCEL OF LAND SITUATED IN THE CITY OF BEACON, COUNTY OF DUTCHESS, STATE OF NEW YORK BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT, SAID BEING THE INTERSECTION OF THE NORTHERLY LINE OF LANDS NOW OR FORMERLY REINOEHL NORTH (LIBER 433 CP 924) WITH EASTERLY LINE OF FISHKILL AVENUE AND THENCE RUNNING ALONG SAID EASTERLY LINE OF FISHKILL AVENUE NORTH 29°38'30" EAST 537.00 FEET THENCE ALONG THE SOUTHERLY LINE OF LANDS NOW OR FORMERLY FREEDOM FORD (BROWNELL) SOUTH 60°21'30" EAST, 136.38 FEET; THENCE ALONG THE WESTERLY LINE OF LANDS NOW OR FORMERLY CONN RAIL CORPORATION, ALONG A CURVE TO THE RIGHT HAVING A RADIUS OF 3224.17 FEET AND BEING DISTANT SOUTHERLY 541.60 FEET; THENCE ALONG SAID LANDS OF REINOEHL NORTH 60°21'30" WEST 71.00 FEET TO THE POINT OF BEGINNING.

CLERK'S NOTE VARIATION IN TYPE OR OTHER MATERIAL: SAME AS IN ORIGINAL

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Dutchess County Clerk

SCHEDULE "B"

Mortgagor: WILLIAM S. HEALEY AND ELLY O. HEALEY
Mortgagee: GENERAL MOTORS ACCEPTANCE CORP.

Amount: $290,000.00
Dated: 12/19/91
Recorded: 6/22/92
Liber: 2085 mp 111

Mortgagor: WILLIAM S. HEALEY AND ELLY O. HEALEY
Mortgagee: GENERAL MOTORS ACCEPTANCE CORP.

Amount: $726,041.49
Dated: 6/28/96
Recorded: 7/10/96
Liber: 2273 mp 216

This mortgage and mortgage in Liber 2085 Page 111 consolidated to form a single lien in the amount of $952,000.00 by Consolidation, Modification, Extension Agreement dated 6/28/96 recorded 7/10/96 in Liber 2273 mp 217.

ASSIGNMENT OF MORTGAGE
General Motors Acceptance Corp. to First National Bank of the Hudson Valley (now herein known as Premier National Bank)

Dated: 8/12/98
Recorded: 8/28/98
Liber: 101 mp 542

Mortgagor: WILLIAM S. HEALEY AND ELLY O. HEALEY
Mortgagee: WILLIAM T. SHAW JR. AND FRANCES A. SHAW

Amount: $250,000.00
Dated: 1/5/93
Recorded: 1/11/93
Liber: 2140 mp 170

Mortgagor: WILLIAM S. HEALEY AND ELLY O. HEALEY
Mortgagee: WILLIAM T. SHAW JR. AND FRANCES A. SHAW

Amount: $51,249.95
Dated: 6/1/94
Recorded: 6/9/94
Liber: 2207 MP 76

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Dutchess County Clerk

This mortgage and mortgage in L 2140 P 170 consolidated to form a single lien in the amount of $270,000.00 by Consolidation, Modification, Extension Agreement dated 6/1/94 recorded 6/9/94 in Liber 2207 mp 77.

ASSIGNMENT OF MORTGAGE
William T. Shaw Jr. and Frances A. Shaw to Premier National Bank

Dated: 8/10/98
Recorded: 8/28/98
Liber: 101 mp 540

Mortgagor: WILLIAM S. HEALEY AND ELLY O. HEALEY
Mortgagee: PREMIER NATIONAL BANK

Amount: $389,666.75
Dated: 8/10/98
Recorded: 8/28/98
Liber: 2360 MP 210

This mortgage and mortgages in Liber 2085 mp 111; Liber 2273 mp 216; Liber 2140 mp 170 and Liber 2207 mp 76 consolidated to form a single lien in the amount of $1,400,000.00 by Consolidation, Modification, Extension Agreement dated 8/10/98 recorded 8/28/98 in Liber 2360 mp 213.

TOGETHER with the Bond(s) or Note(s) or Obligation(s) described in said Mortgage(s), and the monies due and to grow due thereon with interest.

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Hudson Land Design
Professional Engineering, P.C.
174 Main Street
Beacon, NY 12508
p: (845) 440-6926

Project: **409 Fishkill Avenue**
Location: **City of Beacon, NY**
Date: **January 30, 2024**

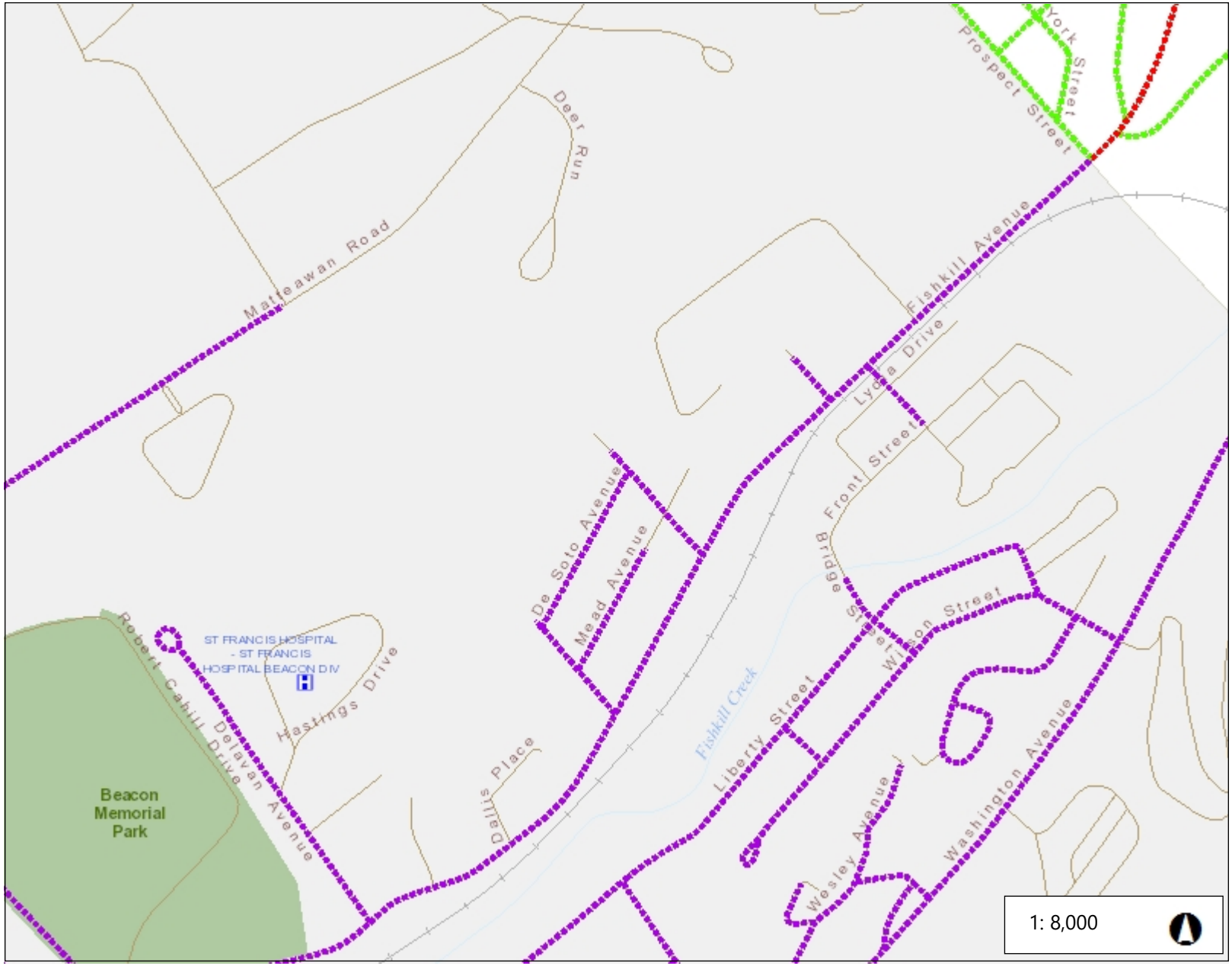
Right-of-Way Work Cost Estimate

No.	Removal Work	Units	$/Unit	Quantity	Cost	Notes
1	Concrete Sidewalk	SF	5.00	2,516	$ 12,580	
2	Concrete Curb	LF	10.00	183	$ 1,830	
3	Pavement Removal (parking area)	SF	1.25	1,181	$ 1,476	
	Subtotal				$ 15,886	

No.	Road, Sidewalk, and Curbing	Units	$/Unit	Quantity	Cost	Notes
1	Pavement Foundation Course	SY	27.00	24	$ 645	
2	Pavement Binder Course	SY	24.75	24	$ 591	
3	Pavement Top Course	SY	13.50	24	$ 323	
4	Concrete Sidewalk	SF	15.00	1,455	$ 21,825	
5	Concrete Driveway/Apron	SF	15.00	358	$ 5,370	
6	Cast-In-Place Concrete Curb	LF	27.00	297	$ 8,019	
	Subtotal				$ 36,773	
Total all Items					**$ 52,659**	
	10% Contingency				$ 5,266	
Grand Total					**$ 57,925**	

New York State Department of Transportation

NYS Roadway Inventory System Viewer



Legend

Maintenance Jurisdiction
- 01 NYSDOT
- 02 County
- 03 Town
- 04 City or village
- 31 NYS Thruway

Interstate
900 Route
US Highway
State Highway
County Touring
County Highway
StateShoreline_Lines
Cities_Towns_Shore
Towns_Shoreline
NYS_Background

Notes

409 Fishkill Avenue

0.3 0 0.13 0.3 Miles

NAD_1983_UTM_Zone_18N

© Latitude Geographics Group Ltd.

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

THIS MAP IS NOT TO BE USED FOR NAVIGATION

409 FISHKILL AVE
SITE DEVELOPMENT

409 FISHKILL AVE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK

PARCEL INFORMATION:
TAX ID: 6055-80-403061 (±0.23 AC), 399053 (±0.16 AC),
406047 (±0.23 AC), 411056 (±0.22 AC), 416064 (±0.22 AC) & 418071 (±0.11 AC)
TOTAL LOT AREA: ±1.183 ACRES
ZONING DISTRICT: GB (GENERAL BUSINESS) – PARCELS 406047, 411056, 416064 & 418071
ZONING DISTRICT: R1-5 (RESIDENTIAL) – PARCELS 403061 & 399053

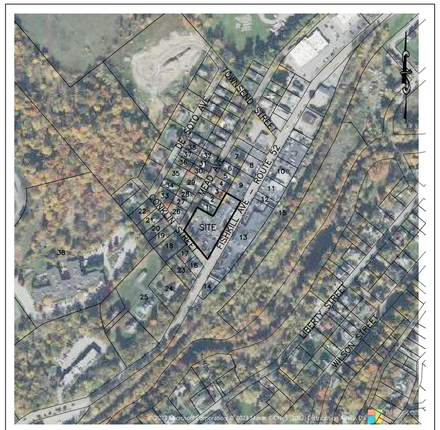
SIGHT DISTANCE NOTES:

1. REFER TO OCTOBER 30TH 2023 TRAFFIC EVALUATION PREPARED BY COLLIERS ENGINEERING & DESIGN.
2. VEGETATION IN THE SIGHT DISTANCE TRIANGLE AREA TO BE MAINTAINED SO THAT MINIMUM SIGHT DISTANCE IS CONTINUALLY PROVIDED. SIGHT DISTANCE TRIANGLES ARE SHOWN ON SHEET SP-1.
3. SIGHT DISTANCE SUMMARY::

	AVAILABLE SIGHT DISTANCE	AASHTO STOPPING SIGHT DISTANCE	AASHTO INTERSECTION SIGHT DISTANCE
SOUTH DRIVEWAY			
LEFT TURN FROM SITE ACCESS			
LOOKING LEFT (NORTH)	525'	305'	445'
LOOKING RIGHT (SOUTH)	1,000'	305'	445'
LEFT TURN FROM MAJOR ROAD			
LEFT TURN ENTRY (AHEAD)	1,000'	305'	325'
LEFT TURN ENTRY (REAR END)	560'	305'	---
NORTH DRIVEWAY			
LEFT TURN FROM SITE ACCESS			
LOOKING LEFT (NORTH)	650'	305'	445'
LOOKING RIGHT (SOUTH)	850'	305'	445'
LEFT TURN FROM MAJOR ROAD			
LEFT TURN ENTRY (AHEAD)	850'	305'	325'
LEFT TURN ENTRY (REAR END)	700'	305'	---

ADA CONSTRUCTION NOTES:

1. ADA ACCESSIBLE COMPONENTS AND ACCESS ROUTES FOR THE SITE MUST COMPLY WITH ALL APPLICABLE STATE AND LOCAL ACCESSIBILITY LAWS AND REGULATIONS AND THE CURRENT ADA STANDARDS. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE FROM PARKING SPACE OR PEDESTRIAN ACCESS TO POINTS OF ACCESSIBLE BUILDING INGRESS/OR EGRESS, MUST COMPLY WITH ADA REQUIREMENTS. THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:
   - 1.1. PARKING SPACES AND PARKING AISLES – SLOPE SHALL NOT EXCEED 1:48 IN ANY DIRECTION.
   - 1.2. CURB RAMPS – SLOPE MUST NOT EXCEED 1:12 (8.3%) FOR A MAXIMUM OF SIX (6) FEET.
   - 1.3. LANDINGS – MUST BE PROVIDED AT EACH END OF RAMPS, MUST PROVIDE POSITIVE DRAINAGE, AND MUST NOT EXCEED 1:48 IN ANY DIRECTION.
   - 1.4. PATH OF TRAVEL ALONG ACCESSIBLE ROUTE – MUST PROVIDE A 36-INCH OR GREATER UNOBSTRUCTED WIDTH OF TRAVEL. THE SLOPE MUST BE NO GREATER THAN 1:20 IN THE DIRECTION OF TRAVEL, AND MUST NOT EXCEED 1:48 IN CROSS SLOPE. WHERE PATH OF TRAVEL WILL BE GREATER THAN 1:20, ADA RAMP STANDARDS MUST BE MET WITH A MAXIMUM SLOPE OF 1:12, FOR A MAXIMUM RISE OF 30 INCHES. RAMPS MUST HAVE ADA HAND RAILS AND LANDINGS AT BOTH THE TOP AND BOTTOM OF EACH RAMP, WITH CROSS SLOPES NO MORE THAN 1:48 IN ANY DIRECTION.
   - 1.5. DOORWAYS – MUST HAVE A LANDING AREA ON THE EXTERIOR SIDE OF THE DOOR THAT IS SLOPED AWAY FROM THE DOOR NO MORE THAN 1:48 AND MUST BE NO LESS THAN 60 INCHES LONG.
2. WHEN THE PROPOSED CONSTRUCTION INCLUDES CONNECTION TO EXISTING ADA COMPONENTS, CONTRACTOR MUST VERIFY EXISTING ELEVATIONS SHOWN. NOTIFY THE DESIGN ENGINEER IMMEDIATELY IF THERE ARE ANY DISCREPANCIES OR FIELD CONDITIONS THAT DIFFER FROM WHAT IS SHOWN BEFORE COMMENCING WORK. CONSTRUCTED IMPROVEMENTS MUST COMPLY WITH THE MAXIMUM AND MINIMUM ADA REQUIREMENTS.
3. THE CONTRACTOR MUST VERIFY THE SLOPES OF THE FORMWORK PRIOR TO POURING CONCRETE. CONTRACTOR IS RESPONSIBLE FOR ALL COSTS TO REMOVE, REPAIR AND REPLACE NON-CONFORMING CONCRETE.



SITE LOCATION MAP SCALE: 1" = 400'

ADJOINING OWNERS WITHIN 200':

PARCEL: OWNER & ADDRESS
1. LAURIE GONZALEZ, 14 MEAD AVE, BEACON NY 12508
2. HOWARD BANICK, 18 MEAD AVE, BEACON NY 12508
3. AUDREY HENDERSON, 22 MEAD AVE, BEACON NY 12508
4. AARON YERKS, 26 MEAD AVE, BEACON NY 12508
5. BRENT STAPLETON, 30 MEAD AVE, BEACON NY 12508
6. PETER NETTLETON, 34 MEAD AVE, BEACON NY 12508
7. JOSEPH POWERS, 40 MEAD AVE, BEACON NY 12508
8. DKH REALTY LLC, PO BOX 859, GOSHEN NY 10924
9. DKH REALTY LLC, PO BOX 859, GOSHEN NY 10924
10. DKH REALTY LLC, 2528 ROUTE 17M, GOSHEN NY 10924
11. DKH REALTY LLC, 2528 ROUTE 17M, GOSHEN NY 10924
12. DKH REALTY LLC, PO BOX 859, GOSHEN NY 10924
13. DKH REALTY LLC, PO BOX 859, GOSHEN NY 10924
14. LANK'S AUTOMOTIVE INC, 394 FISHKILL AVE, BEACON NY 12508
15. METROPOLITAN TRANSPORTATION, 2 BROADWAY, NEW YORK NY 10004
16. 397 FISHKILL AVENUE, LLC., 397 FISHKILL AVE UNIT A, BEACON NY 12508
17. 397 FISHKILL AVENUE, LLC., 397 FISHKILL AVE UNIT A, BEACON NY 12508
18. IRMGARD DI CASTRO, 21 CONKLIN STREET, BEACON NY 12508
19. IRMGARD DI CASTRO, 21 CONKLIN STREET, BEACON NY 12508
20. IRMGARD DI CASTRO, 21 CONKLIN STREET, BEACON NY 12508
21. FANNY SHEFFIELD, 31 CONKLIN STREET, BEACON NY 12508
22. CRAIG CHISOLM, 33 CONKLIN STREET, BEACON NY 12508
23. 393 FISHKILL AVENUE, LLC., 397 FISHKILL AVE UNIT A, BEACON NY 12508
24. JOSHUA KOGAN, 389 FISHKILL AVE, BEACON NY 12508
25. DAVID W. ALLIS, 20 DALLIS PLACE, BEACON NY 12508
26. BARBARA WINTHER, 7 MEAD AVE, BEACON NY 12508
27. AMANDA CARDONI, 6 ROUNDTREE COURT, BEACON NY 12508
28. DARYL EMBRY, 11 MEAD AVE, BEACON NY 12508
29. DENNIS SCHNETZLER, 19 MEAD AVE, BEACON NY 12508
30. MICHAL MART, 49 SYCAMORE DRIVE, BEACON NY 12508
31. MICHAEL ALLGOOD, 506 SANTIGUAY STREET, PUNTA GORDA FL 33983
32. MIRJAN CURMA, 47 QUAIL RUN ROAD, HOPEWELL JUNCTION, NY 12533
33. MARIE A. LEGER, 30 CONKLIN STREET, BEACON NY 12508
34. GLENN ROY, 8 DESOTO AVE, BEACON NY 12508
35. MONIQUE QUIGLEY, 12 DESOTO AVE, BEACON NY 12508
36. MICHAEL TANCREDI, 16 DESOTO AVE, BEACON NY 12508
37. STEVEN GARCIA, 20 DESOTO AVE, BEACON NY 12508
38. JOSEPH PORPEGLIA, 44-27 PURVES STREET APT 4A, LONG ISLAND CITY NY 11101

SITE SPECIFIC NOTES:

1. THE CONTRACTOR SHALL PERFORM A UTILITIES CALL-OUT PRIOR TO CONSTRUCTION TO VERIFY ALL UNDERGROUND UTILITY LOCATIONS BY CONTACTING UFPO @ 1-800-962-7962. SPECIFIC ATTENTION SHALL BE PAID TO THE LOCATIONS OF THE GAS, WATER AND SEWER MAINS WITH RESPECT TO THE PROPOSED LOCATIONS FOR THE SERVICE AND DRAINAGE LINES.
2. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND INVERTS OF ALL DRAINAGE, SANITARY SEWER, WATER AND GAS LINES AND STRUCTURES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT.
3. THE EXISTING BUILDING AND SHALL BE SERVED BY THE CITY OF BEACON MUNICIPAL WATER AND SEWER SERVICES VIA EXISTING WATER AND SANITARY SEWER SERVICE LINES.
4. STREET CLOSURE FOR DRIVEWAY CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF BEACON REQUIREMENTS. A PLAN SHALL BE IN PLACE FOR MAINTENANCE AND PROTECTION OF TRAFFIC.
5. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION. FISHKILL AVENUE & CONKLIN STREET SHALL BE KEPT CLEAN AND SWEPT DURING CONSTRUCTION.
6. THE BUILDING DEPARTMENT SHALL HAVE THE RIGHT TO INSPECT THE EXISTING BUILDING TO CONFIRM THAT THERE ARE NOT EXISTING STORMWATER CONNECTIONS TO THE CITY'S SANITARY SEWER SYSTEM PRIOR TO THE MAP BEING SIGNED. AN INFLOW & INFILTRATION (I&I) STUDY HAS BEEN CONDUCTED FOR THE PROJECT. REFER TO I&I NOTES FOR MITIGATION PROCEDURES.

INSPECTION SCHEDULE & LONG TERM MAINTENANCE OF STORMWATER STRUCTURES

CATCH BASINS AND PIPING:

ALL CATCH BASINS SHALL BE INSPECTED AFTER EACH STORM EVENT FOR SEDIMENT ACCUMULATION, AND DEBRIS, AND REMOVE AS NECESSARY. WHEN SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN SUMP REACHES 1/2 OF THE SUMP DEPTH, IT SHALL BE REMOVED. ASSOCIATED PIPING SHALL BE INSPECTED ANNUALLY AND ACCUMULATED SEDIMENT SHALL BE REMOVED AS NEEDED.

DRAWING INDEX:

SHEET 1: COVER SHEET (CV-1)
SHEET 2: EXISTING CONDITIONS & REMOVALS PLAN (XC-1)
SHEET 3: SITE PLAN (SP-1)
SHEET 4: GRADING PLAN (GD-1)
SHEET 5: EROSION & SEDIMENT CONTROL PLAN (ESC-1)
SHEET 6: UTILITY PLAN (UT-1)
SHEET 7: LANDSCAPING PLAN (LS-1)
SHEET 8: LIGHTING PLAN (LT-1)
SHEET 9: CONSTRUCTION DETAILS (CD-1)

PROJECT ENGINEER:
HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN STREET
BEACON, NEW YORK 12508
PH: 845-440-6926

PROPERTY OWNER:
DKH REALTY, LLC
PO BOX 859
GOSHEN, NY 10924
PH: 845-291-1998

APPLICANT:
SGI – USA.
606 WILSHIRE BLVD.
SANTA MONICA, CA 90401
PH: 914-649-9534

PROJECT SURVEYOR:
BADEY & WATSON SURVEYING & ENGINEERING
3063 ROUTE 9
COLD SPRING NY 10516
PH: 845-265-9217

PROJECT ARCHITECT:
ROBERT W SCARPA JR ARCHITECT
345 EAST 73RD ST
NEW YORK NY 10021
PH: 212-988-5209

APPLICANT'S CONSENT:
THE UNDERSIGNED APPLICANT OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ _____
SGI – USA DATE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	12/16/23	PER PLANNING BOARD COMMENTS	CMB				
2	1/30/24	PER PLANNING BOARD COMMENTS	CMB				

SEAL

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926

COVER SHEET

409 FISHKILL AVE

409 FISHKILL AVE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6055-80-403061, 399053, 406047, 411056, 416064 & 418071

JOB #: 2023:032
DATE: 11/28/23
SCALE: AS SHOWN
TITLE: CV-1
SHEET: 1 OF 9

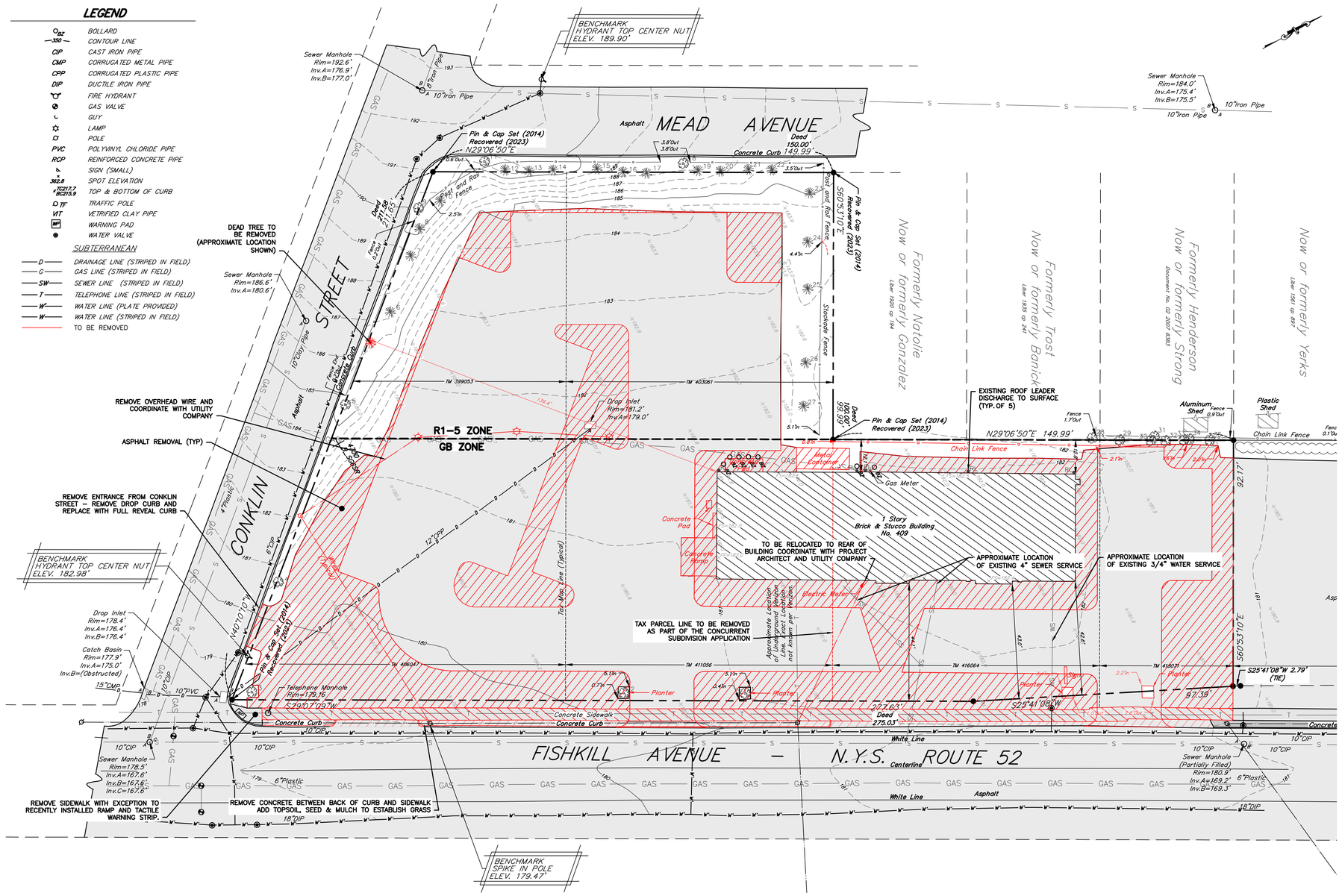
UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW

LEGEND

- BOLLARD
- CONTOUR LINE
- CIP — CAST IRON PIPE
- CMP — CORRUGATED METAL PIPE
- CPP — CORRUGATED PLASTIC PIPE
- DIP — DUCTILE IRON PIPE
- FIRE HYDRANT
- GAS VALVE
- GUY
- LAMP
- POLE
- PVC — POLYVINYL CHLORIDE PIPE
- RCP — REINFORCED CONCRETE PIPE
- SIGN (SMALL)
- 362.8 — SPOT ELEVATION
- TC217.7 / BC215.9 — TOP & BOTTOM OF CURB
- TF — TRAFFIC POLE
- VT — VERIFIED CLAY PIPE
- WARNING PAD
- WATER VALVE

SUBTERRANEAN

- D — DRAINAGE LINE (STRIPED IN FIELD)
- G — GAS LINE (STRIPED IN FIELD)
- SW — SEWER LINE (STRIPED IN FIELD)
- T — TELEPHONE LINE (STRIPED IN FIELD)
- W — WATER LINE (PLATE PROVIDED)
- W — WATER LINE (STRIPED IN FIELD)
- TO BE REMOVED



EXISTING TREE & REMOVAL SCHEDULE:

1. 16" APPLE	19. 12" PINE
2. 12" APPLE	20. 14" PINE
3. 10" APPLE	21. 4" PINE
4. 22" SYCAMORE	22. 4" PINE
5. 20" SYCAMORE	23. 22" PINE
6. 14" PINE	24. 10" PINE
7. 14" PINE	25. 16" PINE
8. 10" PINE	26. 12" PINE
9. 24" SYCAMORE	27. 18" PINE
10. 14" PINE	28. 16" MAPLE
11. 24" SYCAMORE	29. 8" MAPLE TWIN
12. 4" PINE	30. 8" MAPLE
13. 6" PINE	31. 6" HACKBERRY
14. 6" PINE	32. 8" MAPLE
15. 6" PINE TWIN	33. 10" MAPLE TRIPLE
16. 6" PINE	34. 8" MAPLE
17. 4" PINE	35. 8" MAPLE CLUMP
18. 24" SYCAMORE	

NOTES:
1. TREE LOCATIONS BY BADEY & WATSON SURVEYING.
2. SPECIES ID PER BADEY & WATSON SURVEYING.
3. **TBR** = TO BE REMOVED

SURVEY REFERENCE:

1. REFERENCE IS HEREBY MADE TO "SURVEY OF PROPERTY PREPARED FOR SOKA GOKKAI INTERNATIONAL – USA" DATED SEPTEMBER 26, 2023 AND PREPARED BY BADEY & WATSON SURVEYING & ENGINEERING DPC.

SURVEY NOTES:

1. COPYRIGHT "2023" BY BADEY & WATSON, SURVEYING & ENGINEERING, D.P.C. ALL RIGHTS RESERVED. UNAUTHORIZED DUPLICATION IS A VIOLATION OF APPLICABLE LAWS.
2. UNAUTHORIZED ALTERATION OR ADDITION TO A DOCUMENT PREPARED BY A LICENSED LAND SURVEYOR IS A VIOLATION OF SECTION 7209, SUBDIVISION 2 OF THE NEW YORK STATE EDUCATION LAW.
3. ALL CERTIFICATIONS ARE VALID FOR THIS MAP AND COPIES THEREOF ONLY IF SAID MAP OR COPIES BEAR THE EMBOSSED SEAL OF THE SURVEYOR WHOSE SIGNATURE APPEARS HEREON.
4. IF UNDERGROUND IMPROVEMENTS, EASEMENTS, OR ENCROACHMENTS EXIST AND ARE NEITHER VISIBLE DURING NORMAL FIELD SURVEY OPERATIONS NOR DESCRIBED IN INSTRUMENTS PROVIDED TO THESE SURVEYORS, THEY MAY NOT BE SHOWN ON THIS MAP.
5. THIS PROPERTY MAY BE AFFECTED BY INSTRUMENTS WHICH HAVE NOT BEEN PROVIDED TO THESE SURVEYORS. USERS OF THIS MAP SHOULD VERIFY TITLE WITH THEIR ATTORNEY OR A QUALIFIED TITLE EXAMINER.
6. THIS SURVEY IS A PORTION OF PARCEL I DESCRIBED IN THE DUTCHESS COUNTY CLERK'S DOCUMENT NUMBER 02-2000-8802 (HEALEY TO DKH REALTY LLC.).
7. THE VERTICAL DATUM HEREON IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
8. THE MERIDIAN AND COORDINATE VALUES HEREON REFER TO THE NEW YORK STATE COORDINATE SYSTEM, EAST ZONE (NAS 83) EXPRESSED IN U.S. SURVEY FEET. THE DISTANCES SHOWN ON THIS SURVEY ARE GRID DISTANCES. THEY HAVE BEEN SCALED BY A GRID FACTOR (SCALE FACTOR X SEA LEVEL FACTOR) OF 0.99991662. TO OBTAIN GROUND DISTANCES, DIVIDE THE DISTANCES ON THIS MAP BY THE GRID FACTOR. TO OBTAIN GROUND AREA DIVIDE THE AREA ON THIS MAP BY THE SQUARE OF THE GRID FACTOR.
9. THE TOPOGRAPHIC DATA HEREON WAS COMPILED FROM AN ACTUAL FIELD SURVEY CONDUCTED BY BADEY & WATSON ON SEPTEMBER 26, 2023.
10. THE NORTHWESTERLY LINE OF FISHKILL AVENUE WAS REPRODUCED FROM THAT CERTAIN MAP ENTITLED "PLAN AND PROFILE OF CURB AND SIDEWALK ON NORTH SIDE OF FISHKILL AVENUE ...," WHICH WAS FILED IN THE DUTCHESS COUNTY CLERK'S OFFICE ON AUGUST 1, 1922 AS MAP NO. 1243.

APPLICANT'S CONSENT:

THE UNDERSIGNED APPLICANT OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ _____
SGI – USA DATE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

_____ DAY OF _____, 20_____ SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	12/16/23	PER PLANNING BOARD COMMENTS	CMB				
2	1/30/24	PER PLANNING BOARD COMMENTS	CMB				

EXISTING CONDITIONS & REMOVALS PLAN
SCALE: 1" = 20'
GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 20 ft.

DANIEL G. KEGERIS — STATE OF NEW YORK — 082716 — LICENSED PROFESSIONAL ENGINEER
SEAL

HUDSON LAND DESIGN
HUDSON LAND DESIGN PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926

EXISTING CONDITIONS & REMOVALS PLAN

409 FISHKILL AVE

409 FISHKILL AVE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6055-80-403061, 399053, 406047, 411056, 416064 & 418071

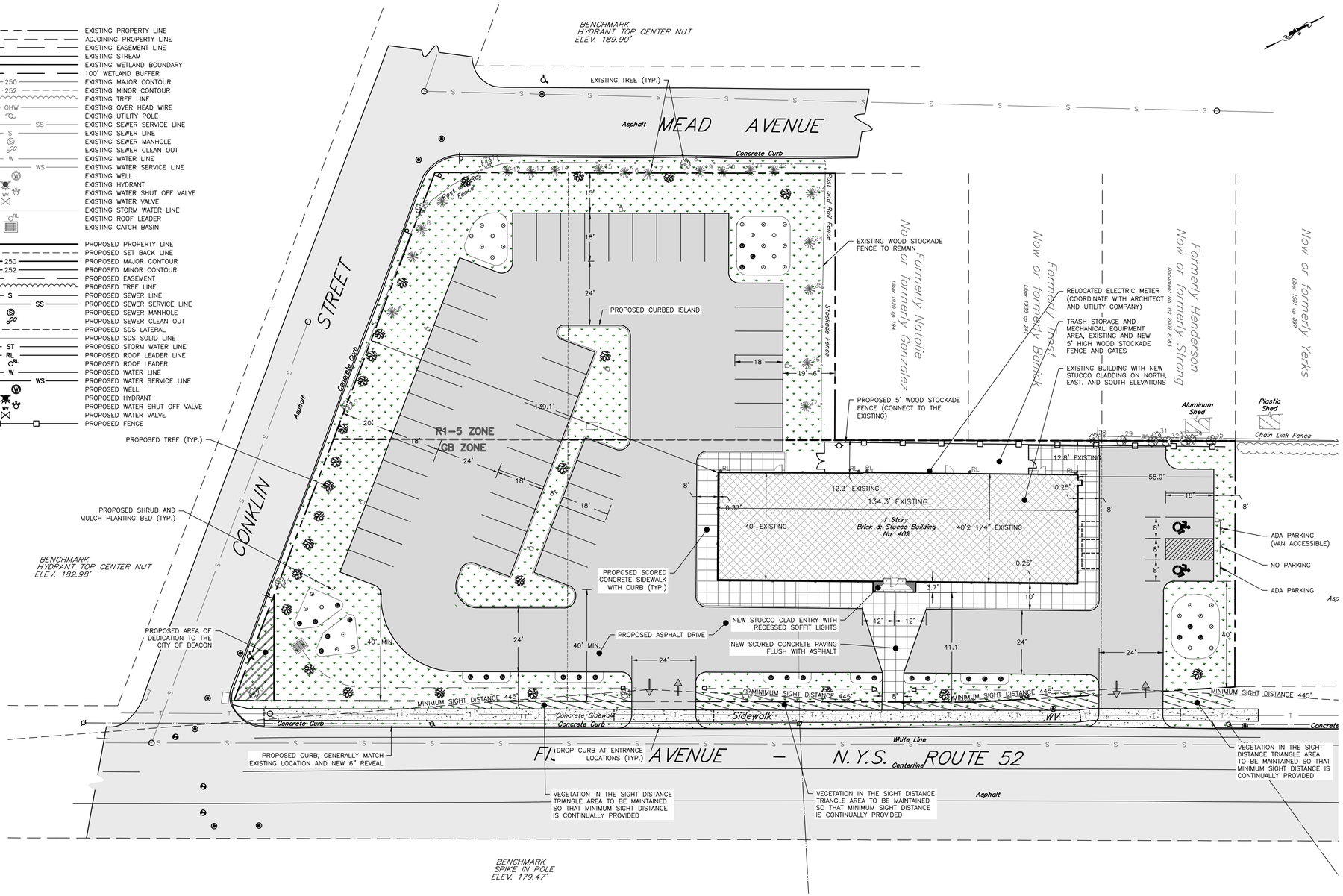
JOB #: 2023:032
DATE: 11/28/23
SCALE: 1" = 20'
TITLE: XC-1
SHEET: 2 OF 9

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 250 EXISTING MAJOR CONTOUR
- 252 EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- OHW EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- SS EXISTING SEWER SERVICE LINE
- S EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- W EXISTING WATER LINE
- WS EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- WV EXISTING WATER SHUT OFF VALVE
- EXISTING WATER VALVE
- ST EXISTING STORM WATER LINE
- RL EXISTING ROOF LEADER
- EXISTING CATCH BASIN

- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- 250 PROPOSED MAJOR CONTOUR
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- WV PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE
- PROPOSED FENCE



SCHEDULE OF REGULATIONS (GB ZONING DISTRICT) AND LOT CONFORMANCE TABLE:

PARAMETER	REQUIREMENT	EXISTING	PROVIDED
LOT AREA:	N/A	±34,543 SQFT	±34,543 SQFT
LOT WIDTH:	N/A	N/A FEET	N/A FEET
LOT DEPTH:	100 FEET MINIMUM	±98 FEET*	±98 FEET*
YARD SETBACKS:			
FRONT YARD:	15 FEET MINIMUM	±41.1 FEET	±41.1 FEET
SIDE YARD:	20 FEET MINIMUM	±58.9 FEET	±58.9 FEET
REAR YARD:	25 FEET MINIMUM	±12.3 FEET*	±12.3 FEET*
MAX. BUILDING HEIGHT:	35 FT MAX.	±20 FEET	±20 FEET

*EXISTING NON-CONFORMING

SCHEDULE OF REGULATIONS (R1-5 ZONING DISTRICT) AND LOT CONFORMANCE TABLE:

PARAMETER	REQUIREMENT	EXISTING	PROVIDED
LOT AREA:	5,000 SQFT	±16,988 SQFT	±16,988 SQFT
LOT AREA PER UNIT:	5,000 SQFT MINIMUM	N/A	N/A
LOT WIDTH:	50	±100 FEET	±100 FEET
LOT DEPTH:	100 FEET MINIMUM	±150 FEET	±150 FEET
YARD SETBACKS:			
FRONT YARD:	10 FEET MINIMUM	N/A	N/A
SIDE YARD:	10 FEET MINIMUM	N/A	N/A
REAR YARD:	20 FEET MINIMUM	N/A	N/A
MAX. BUILDING HEIGHT:	35 FT MAX.	N/A	N/A

SITE PLAN NOTES:

1. THE PROJECT PROPOSES AN ADAPTIVE REUSE OF THE EXISTING AUTOMOBILE DEALERSHIP LOCATED ON THE SUBJECT PROPERTY, WITH NO INCREASE TO THE BUILDING SIZE. THE APPLICANT, SGI-USA WILL UTILIZE THE BUILDING FOR RELIGIOUS ASSEMBLY AND GATHERINGS OF UP TO 200 PERSONS. SITE IMPROVEMENTS TO THE PARKING AREAS ARE ALSO PROPOSED AS PART OF THE PROJECT THAT WILL PROVIDE A TOTAL OF 50 PARKING SPACES ON THE SITE INCLUDING TWO (2) ADA ACCESSIBLE PARKING SPACES. ADDITIONAL IMPROVEMENTS INCLUDE ARCHITECTURAL ALTERATIONS TO THE BUILDING FACADE, NEW SIDEWALK AROUND THE EXISTING BUILDING, REDUCTION IN PAVED AREAS, ELIMINATION OF EXISTING SITE ENTRY POINTS ON CONKLIN STREET AND FISHKILL AVENUE, NEW LIGHTING, AND ADDITIONAL LANDSCAPING. PLACES OF WORSHIP ARE PERMITTED USES IN THE GENERAL BUSINESS AND THE R1-5 ZONING DISTRICTS, AND REQUIRE SITE PLAN APPROVAL FROM THE PLANNING BOARD. PARKING ON PARCELS 418071, 406047, 399053, AND 403061 SUBJECT TO SPECIAL USE PERMIT.
2. THE FACILITY WILL OPERATE MONDAY THROUGH WEDNESDAY BETWEEN 6:00 PM – 9:30 PM AND ON SATURDAYS & SUNDAYS BETWEEN 7:00 AM – 6:00 PM. THE WEEKNIGHT (MONDAY THROUGH WEDNESDAY) OPERATIONS WILL CONSIST OF GATHINGS OF BETWEEN 30-50 ATTENDEES OCCURRING BETWEEN 7:00 PM – 8:30 PM. SATURDAY OPERATIONS WILL CONSIST OF TWO (2) GATHERINGS WITH A TOTAL OF 50 – 100 ATTENDEES OVER THE COURSE OF THE DAY. THE GATHERINGS WILL BE HELD BETWEEN 11:00 AM – 12:30 PM AND BETWEEN 1:00 PM – 3:00 PM. SUNDAY OPERATIONS WILL CONSIST OF THREE (3) GATHERINGS ALSO WITH A TOTAL OF 50 – 100 ATTENDEES OVER THE COURSE OF THE DAY. THE SUNDAY GATHERING TIMES WILL BE 8:00 AM – 9:30 AM, 10:00 AM – 12:00 PM AND 1:00 PM – 3:00 PM. IN ADDITION, A LARGER MONTHLY GATHERING WILL BE HELD ONCE A MONTH ON A SUNDAY MORNING THAT WILL HAVE 150 – 200 ATTENDEES.
3. THERE ARE NO WETLANDS OR FLOODPLAINS ASSOCIATED WITH THE PROJECT SITE.
4. INDIANA BAT WAS IDENTIFIED AS AN ENDANGERED SPECIES NEAR THE PROJECT SITE. THE PLAN CALLS FOR LIMITED REMOVAL OF EXISTING TREES; HOWEVER, A RESTRICTION FOR THE REMOVAL OF ANY TREES HAS BEEN INCLUDED IN THE DEMOLITION NOTES.
5. TOTAL SITE IMPERVIOUS REDUCED FROM 86% TO 68%.
6. REFUSE TO BE ROLLED OUT. NO DUMPSTER ENCLOSURE IS PROPOSED.
7. THERE ARE NO PROPOSED FREE STANDING SIGNS. SIGNAGE WILL BE BUILDING MOUNTED PER THE ARCHITECTURAL PLANS.

PARKING NOTES:

1. PER §223-26, 1 SPACE IS REQUIRED FOR EVERY 4 SEATS FOR PLACE OF WORSHIP. THE MAXIMUM SEAT COUNT IS 200, REQUIRING 50 PARKING SPACES. THE PLAN CALLS FOR 50 PARKING SPACES, INCLUDING 2 ADA ACCESSIBLE PARKING SPACES.

APPLICANT'S CONSENT:

THE UNDERSIGNED APPLICANT OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

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SGI – USA DATE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

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_____ SECRETARY

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2	1/30/24	PER PLANNING BOARD COMMENTS	CMB				

SITE PLAN
SCALE: 1" = 20'
GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 20 ft.

STATE OF NEW YORK DANIEL G. ROBERTS 098716 LICENSED PROFESSIONAL ENGINEER
SEAL

HUDSON LAND DESIGN
HUDSON LAND DESIGN PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926

SITE PLAN
409 FISHKILL AVE
409 FISHKILL AVE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6055-80-403061, 399053, 406047, 411056, 416064 & 418071

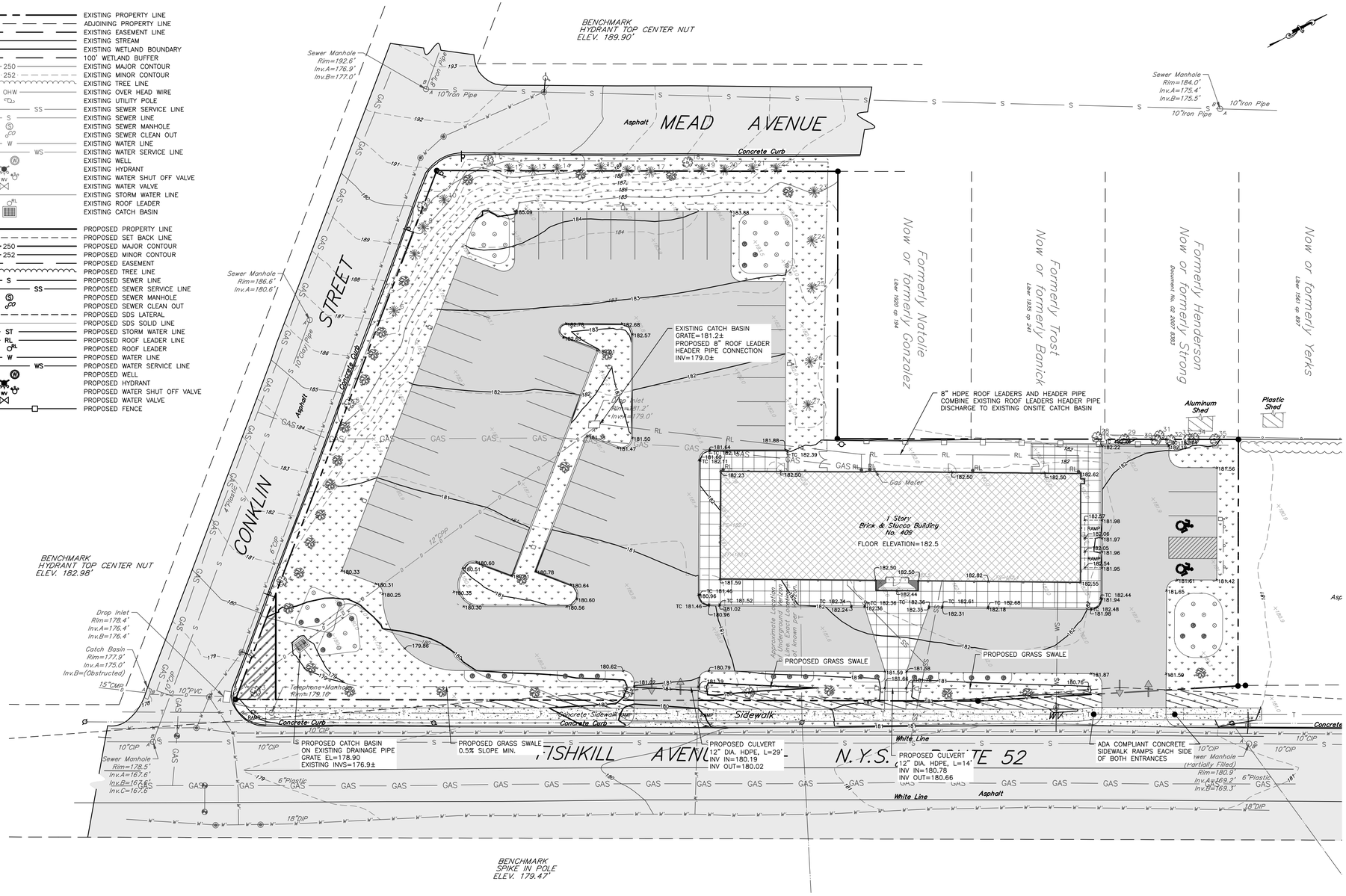
JOB #:	2023:032
DATE:	11/28/23
SCALE:	1" = 20'
TITLE:	SP-1
SHEET:	3 OF 9

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LEGEND:

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GRADING NOTES:

1. ALL PROPOSED SPOT ELEVATIONS REPRESENT BOTTOM CURB ELEVATION UNLESS OTHERWISE NOTED. TC REPRESENTS TOP CURB ELEVATION.
2. CONTRACTOR SHALL ENSURE POSITIVE SURFACE WATER FLOW TO THE INTENDED DRAINAGE FACILITIES.
3. SEE ALSO ADA CONSTRUCTION NOTES ON SHEET CV-1.

APPLICANT'S CONSENT:

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GRADING PLAN
SCALE: 1" = 20'
GRAPHIC SCALE

30 0 15 30 60 120
(IN FEET)
1 inch = 20 ft.

STATE OF NEW YORK DANIEL G. KOSTER 082716 LICENSED PROFESSIONAL ENGINEER
SEAL

HUDSON LAND DESIGN
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GRADING PLAN

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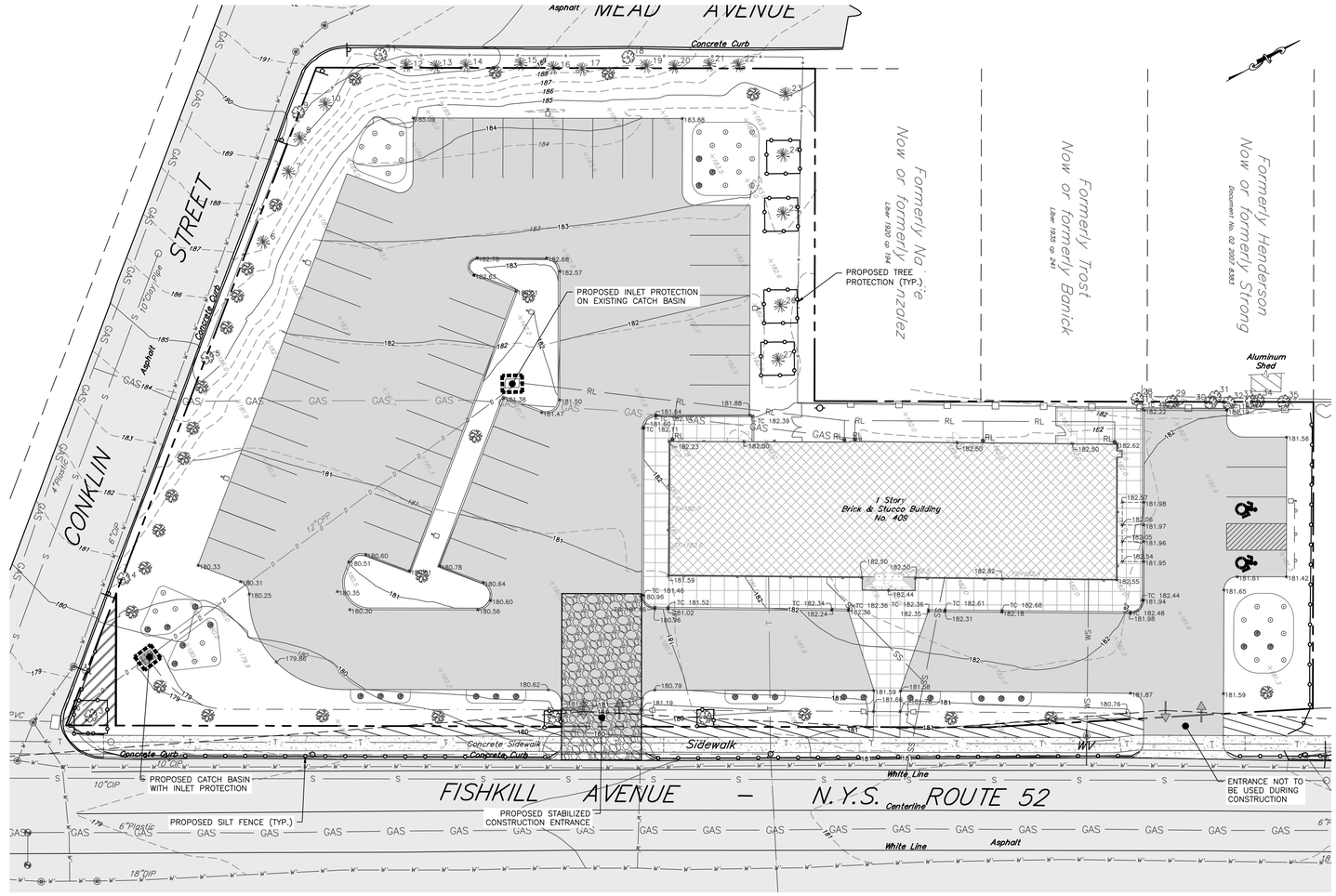
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DATE:	11/28/23
SCALE:	1" = 20'
TITLE:	GD-1
SHEET:	4 OF 9

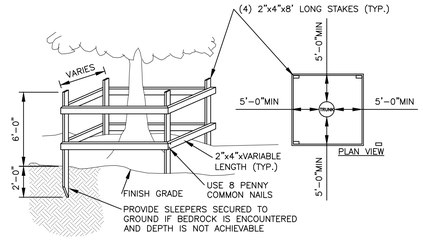
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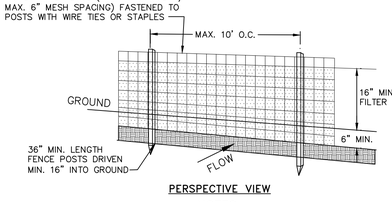
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- PROPOSED WATER VALVE
- PROPOSED FENCE
- PROPOSED SILT FENCE
- LOD PROPOSED LIMIT OF DISTURBANCE
- PROPOSED CATCH BASIN INLET PROTECTION
- PROPOSED CONSTRUCTION ENTRANCE



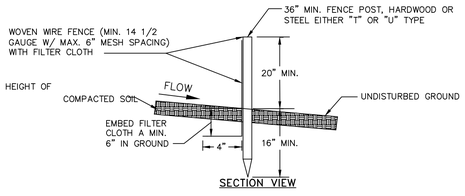


NOTES:
1. TREES TO REMAIN NOTED ON EXISTING CONDITIONS PLAN.
2. NOT ALL TREES TO REMAIN REQUIRE PROTECTION. TREE PROTECTION TO BE UTILIZED ON TREES WHERE CONSTRUCTION TRAFFIC WOULD COMPACT THE ROOT ZONE OF THE TREE.

TEMPORARY TREE PROTECTION DETAIL
NOT TO SCALE



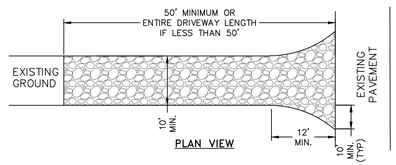
PERSPECTIVE VIEW



SECTION VIEW

NOTES:
1. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER–LAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.
3. PREFABRICATED UNITS SHALL BE GEOFAB, ENVIROFENCE OR APPROVED EQUAL.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

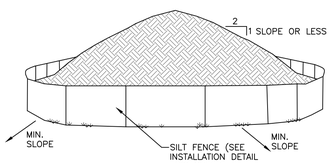
SILT FENCE DETAIL
NOT TO SCALE



PLAN VIEW

NOTES:
1. STONE SIZE – USE 1–4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. THICKNESS – NOT LESS THAN SIX (6) INCHES.
3. WIDTH – 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.
4. GEOTEXTILE – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
5. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
6. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACTED ONTO PUBLIC RIGHTS–OF–WAY MUST BE REMOVED IMMEDIATELY.
7. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
8. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE



NOTES:
1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. EACH PILE SHALL BE SURROUNDED WITH SILT FENCING, THEN STABILIZED WITH VEGETATION OR COVERED.

TEMPORARY SOIL STOCKPILE DETAIL
NOT TO SCALE

INSPECTION SCHEDULE & MAINTENANCE OF EROSION AND SEDIMENT CONTROL MEASURES

PERMANENT AND TEMPORARY VEGETATION:
INSPECT ALL AREAS THAT HAVE RECEIVED VEGETATION EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. ALL AREAS DAMAGED BY EROSION OR WHERE SEED HAS NOT ESTABLISHED SHALL BE REPAIRED AND RESTABILIZED IMMEDIATELY.

STABILIZED CONSTRUCTION ENTRANCE:
INSPECT THE ENTRANCE PAD EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. CHECK FOR MUD, SEDIMENT BUILD–UP AND PAD INTEGRITY. MAKE DAILY INSPECTIONS DURING WET WEATHER. REGRADE PAD AS NEEDED FOR RUNOFF CONTROL. WASH AND REPLACE STONE AS NEEDED. THE STONE IN THE ENTRANCE SHOULD BE WASHED OR REPLACED WHENEVER THE ENTRANCE FAILS TO REDUCE MUD BEING CARRIED OFF SITE BY VEHICLES. IMMEDIATELY REMOVE MUD AND SEDIMENT TRACKED OR WASHED ONTO PUBLIC ROADS BY BRUSHING OR SWEEPING. REMOVE TEMPORARY CONSTRUCTION ENTRANCE AS SOON AS THEY ARE NO LONGER NEEDED TO PROVIDE ACCESS TO THE SITE AS DIRECTED BY PROJECT ENGINEER.

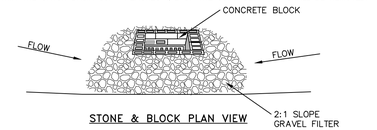
SILT FENCE:
INSPECT FOR DAMAGE EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP–SLOPE FACE OF THE FENCE BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO ONE–QUARTER THE HEIGHT OF THE FENCE. IF FENCE FABRIC TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF FENCE IMMEDIATELY.

SOIL STOCKPILE:
INSPECT SEDIMENT CONTROL BARRIERS (SILT FENCE) AND VEGETATION FOR DAMAGE EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP–SLOPE FACE OF THE SEDIMENT CONTROL BARRIER BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO ONE–QUARTER THE HEIGHT OF THE SEDIMENT CONTROL BARRIER. IF SEDIMENT CONTROL BARRIER TEARS, BEGINS TO DECOMPOSE, OR IN ANY WAY BECOMES INEFFECTIVE, REPLACE THE AFFECTED SECTION OF SEDIMENT CONTROL BARRIER IMMEDIATELY. REVEGETATE DISTURBED AREA TO STABILIZE SOIL STOCKPILE. REMOVE THE SEDIMENT CONTROL BARRIER WHEN THE SOIL STOCKPILE HAS BEEN REMOVED.

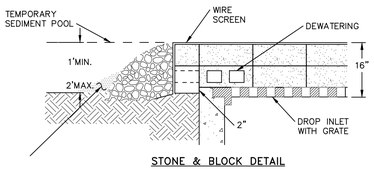
DUST CONTROL:
SCHEDULE CONSTRUCTION OPERATIONS TO MINIMIZE THE AMOUNT OF DISTURBED AREAS AT ANY ONE TIME DURING THE COURSE OF WORKS. APPLY TEMPORARY SOIL STABILIZATION PRACTICES SUCH AS MULCHING, SEEDING, AND SPRAYING (WATER). STRUCTURAL MEASURES (MULCH, SEEDING) SHALL BE INSTALLED IN DISTURBED AREAS BEFORE SIGNIFICANT BLOWING PROBLEMS DEVELOP. WATER SHALL BE SPRAYED AS NEEDED. REPEAT AS NEEDED, BUT AVOID EXCESSIVE SPRAYING, WHICH COULD CREATE RUNOFF AND EROSION PROBLEMS.

DEWATERING PITS:
(IF REQUIRED) – INSPECT DAILY DURING OPERATION FOR CLOGGING OR OVERFLOW. CLEAR INLET AND DISCHARGE PIPES OF OBSTRUCTIONS. IF A FILTER MATERIAL BECOMES CLOGGED WITH SEDIMENT, PIT SHALL BE DISMANTLED AND NEW PITS SHALL BE CONSTRUCTED AS NEEDED.

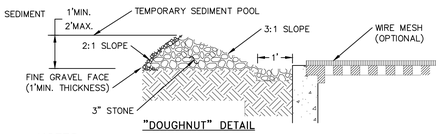
CATCH BASINS:
ALL CATCH BASINS SHALL BE INSPECTED AFTER EACH STORM EVENT FOR SEDIMENT ACCUMULATION, AND DEBRIS, AND REMOVE AS NECESSARY. THE INLET PROTECTION SHALL BE INSPECTED FOR SEDIMENT ACCUMULATION AND REPLACED AS NECESSARY. WHEN SEDIMENT ACCUMULATION WITHIN THE CATCH BASIN SUMP REACHES 1/2 OF THE SUMP DEPTH, IT SHALL BE REMOVED.



STONE & BLOCK PLAN VIEW



STONE & BLOCK DETAIL



"DOUGHNUT" DETAIL

NOTES:
1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
2. HARDWARE CLOTH OR 1/2" WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL 1/2–3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. FOR STONE STRUCTURES ONLY, A 1 FOOT THICK LAYER OF THE FILTER STONE WILL BE PLACED AGAINST THE 3 INCH STONE AS SHOWN ON THE DRAWINGS. MAXIMUM DRAINAGE AREA 1 ACRE

CATCH BASIN INLET PROTECTION DETAIL
NOT TO SCALE

APPLICANT'S CONSENT:

THE UNDERSIGNED APPLICANT OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

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SGI – USA DATE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

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REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
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2	1/30/24	PER PLANNING BOARD COMMENTS	CMB				

EROSION & SEDIMENT CONTROL
SCALE: 1" = 20'
GRAPHIC SCALE

30 0 15 30 60 120
(IN FEET)
1 inch = 20 ft.

STATE OF NEW YORK DANIEL G. KOSTER 082716 LICENSED PROFESSIONAL ENGINEER
SEAL

HUDSON LAND DESIGN
HUDSON LAND DESIGN PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845–440–6926

EROSION & SEDIMENT CONTROL PLAN

409 FISHKILL AVE

409 FISHKILL AVE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6055–80–403061, 399053, 406047, 411056, 416064 & 418071

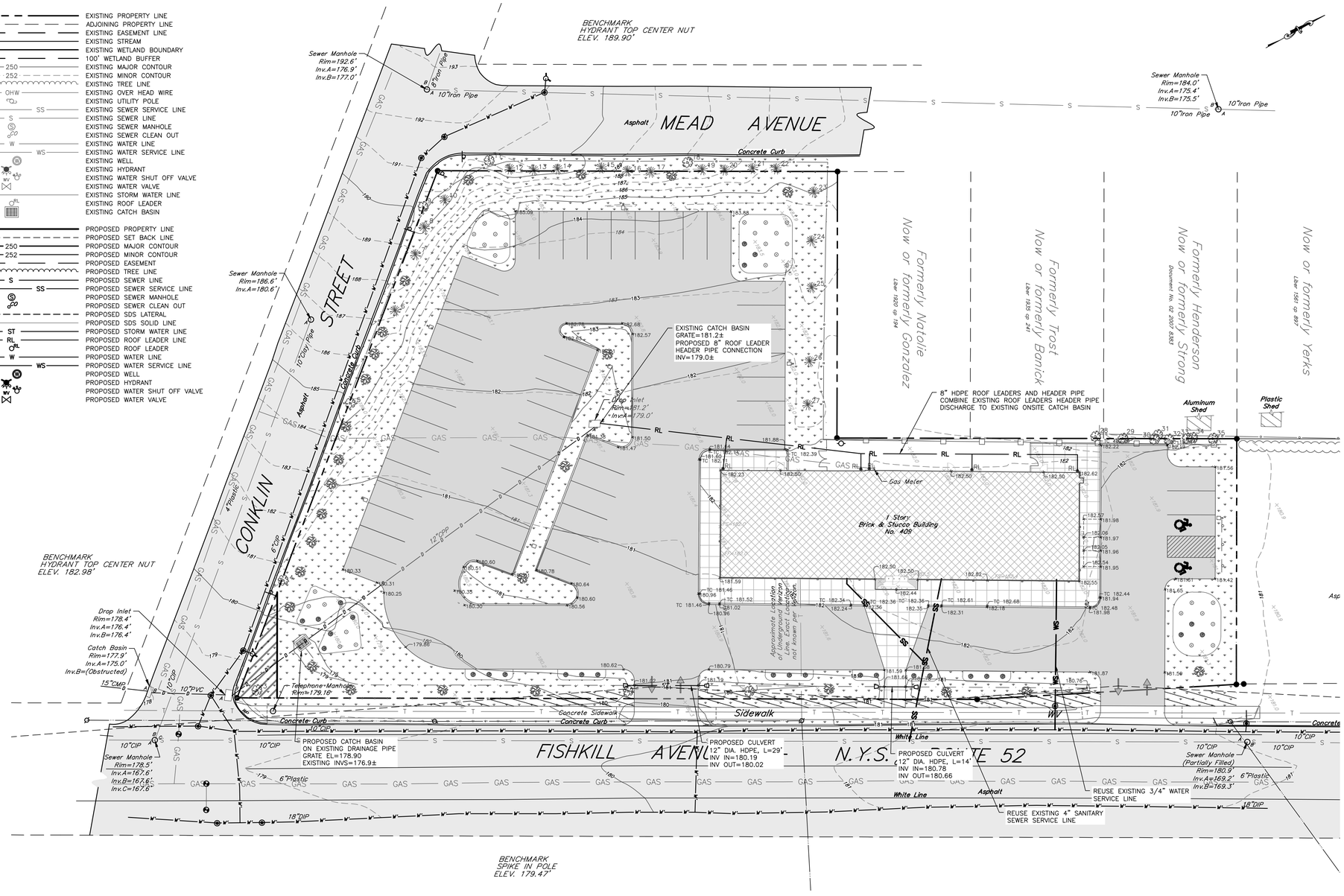
JOB #:	2023:032
DATE:	11/28/23
SCALE:	AS SHOWN
TITLE:	ESC–1
SHEET:	5 OF 9

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 250 EXISTING MAJOR CONTOUR
- 252 EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- OHW EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- SS EXISTING SEWER SERVICE LINE
- S EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- W EXISTING WATER LINE
- WS EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER SHUT OFF VALVE
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- EXISTING ROOF LEADER
- EXISTING CATCH BASIN

- PROPOSED PROPERTY LINE
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I&I NOTES:

1. A FLOOR DRAIN WAS FOUND DURING THE INSPECTION BY HUDSON LAND DESIGN PERSONNEL, LOCATED GENERALLY ALONG THE SOUTHEAST PORTION OF THE GARAGE AREA. THE FLOOR DRAIN CONVEYS FLOW TO A TRAP IN THE FLOOR, AND IS ASSUMED TO DRAIN TO THE BUILDING'S SANITARY SEWER LINE. ALL COMPONENTS OF THE FLOOR DRAIN SHALL BE REMOVED AND THE DISCHARGE PIPE SHALL BE CAPPED.

APPLICANT'S CONSENT:

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UTILITY PLAN
SCALE: 1" = 20'
GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 20 ft.

SEAL

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926

UTILITY PLAN

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CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6055-80-403061, 399053, 406047, 411056, 416064 & 418071

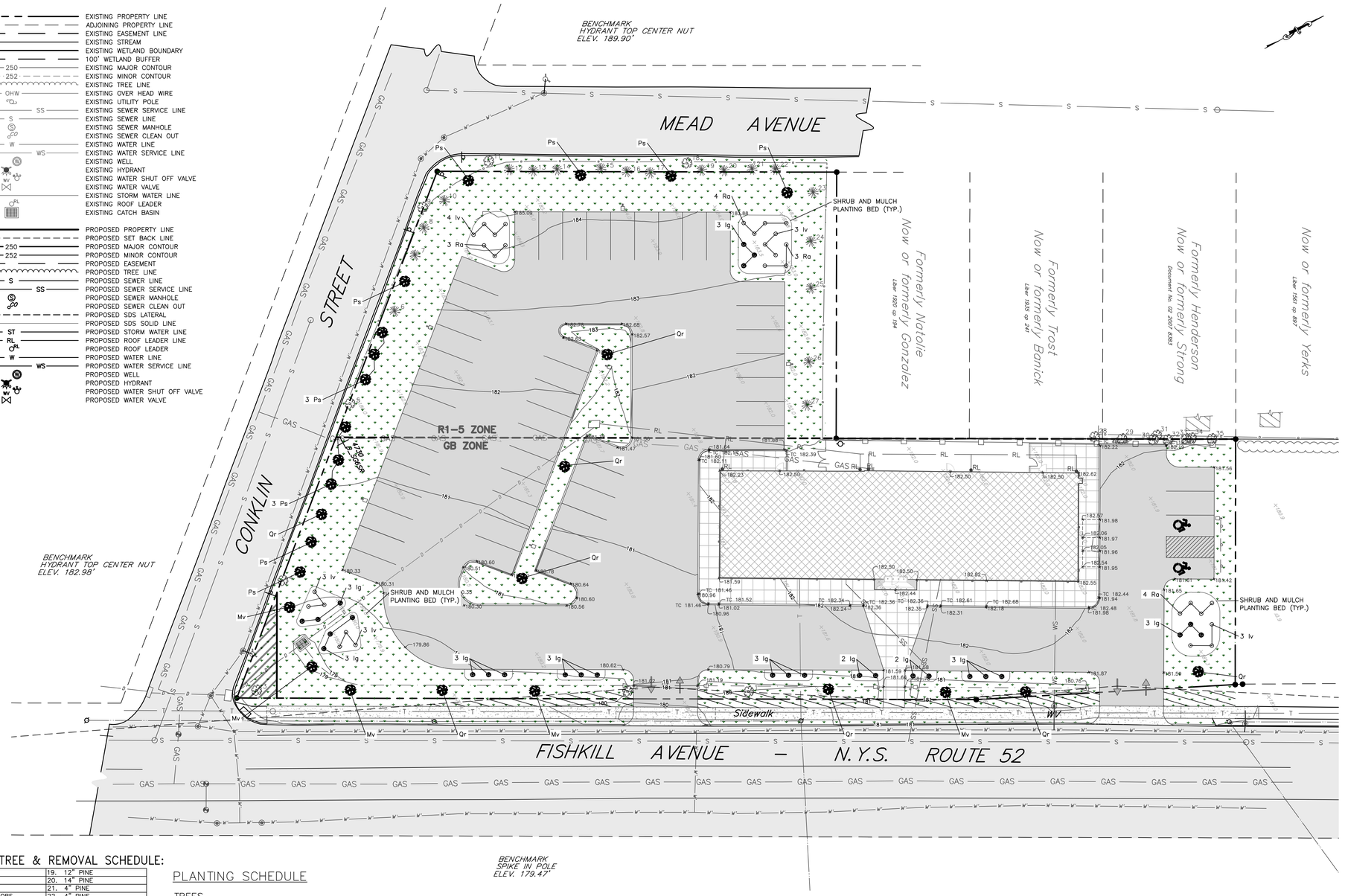
JOB #:	2023:032
DATE:	11/28/23
SCALE:	1" = 20'
TITLE:	UT-1
SHEET:	6 OF 9

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LEGEND:

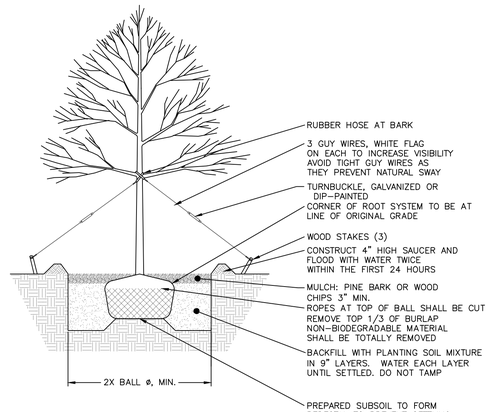
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LANDSCAPE NOTES:

1. THE LANDSCAPE CONTRACTOR SHALL CAREFULLY COORDINATE CONSTRUCTION ACTIVITIES WITH THAT OF THE EARTHWORK CONTRACTOR AND OTHER SITE DEVELOPMENT.
2. THE CONTRACTOR SHALL VERIFY DRAWING DIMENSIONS WITH ACTUAL FIELD CONDITIONS AND INSPECT RELATED WORK AND ADJACENT SURFACES. THE CONTRACTOR SHALL VERIFY THE ACCURACY OF ALL FINISH GRADES WITHIN THE WORK AREA. THE CONTRACTOR SHALL REPORT TO THE ENGINEER AND OWNER ALL CONDITIONS WHICH PREVENT PROPER EXECUTION OF THIS WORK.
3. THE EXACT LOCATION OF ALL EXISTING UTILITIES, STRUCTURES AND UNDERGROUND UTILITIES, WHICH MAY NOT BE INDICATED ON THE DRAWINGS, SHALL BE DETERMINED BY THE CONTRACTOR. THE CONTRACTOR SHALL PROTECT EXISTING STRUCTURES AND UTILITY SERVICES AND IS RESPONSIBLE FOR THEIR REPLACEMENT IF DAMAGED.
4. THE CONTRACTOR SHALL KEEP THE PREMISES FREE FROM RUBBISH AND ALL DEBRIS AT ALL TIMES AND SHALL ARRANGE MATERIAL STORAGE SO AS NOT TO INTERFERE WITH THE OPERATION OF THE PROJECT. ALL UNUSED MATERIALS, RUBBISH AND DEBRIS SHALL BE REMOVED FROM THE SITE.
5. NO TREES OR SHRUBS SHALL BE PLANTED ON EXISTING OR PROPOSED UTILITY LINES.
6. QUALITY ASSURANCE:
   A. PLANT NAMES SHALL CONFORM TO THE LATEST EDITION OF "STANDARDIZED PLANT NAMES" AS ADOPTED BY THE AMERICAN JOINT COMMITTEE ON HORTICULTURAL NOMENCLATURE.
   B. SIZE AND GRADING: PLANT SIZES AND GRADING SHALL CONFORM TO THE LATEST EDITION OF "AMERICAN STANDARD FOR NURSERY STOCK" AS SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC (AAN), UNLESS OTHERWISE SPECIFIED.
   C. NURSERY SOURCE: OBTAIN FRESHLY DUG, HEALTHY, VIGOROUS PLANTS NURSERY GROWN UNDER CLIMACTIC CONDITIONS SIMILAR TO THOSE IN THE LOCALITY OF THE PROJECT FOR A MINIMUM OF 2 YEARS. PLANTS SHALL HAVE BEEN LINED OUT IN ROWS, ANNUALLY CULTIVATED, SPRAYED, PRUNED AND FERTILIZED IN ACCORDANCE WITH GOOD HORTICULTURAL PRACTICE. ALL PLANTS SHALL HAVE BEEN TRANSPLANTED OR ROOT PRUNED AT LEAST ONCE IN THE PAST 3 YEARS. BALLED AND BURLAPPED PLANTS MUST COME FROM SOIL WHICH WILL HOLD A FIRM ROOT BALL. HEELED IN PLANTS AND PLANTS FROM COLD STORAGE ARE NOT ACCEPTABLE.
   D. SUBSTITUTIONS: DO NOT MAKE SUBSTITUTIONS OF TREES AND/OR SHRUB MATERIALS. IF REQUIRED LANDSCAPE MATERIAL IS NOT OBTAINABLE, SUBMIT PROOF OF NON-AVAILABILITY AND PROPOSAL FOR USE OF EQUIVALENT MATERIAL.
7. SEEDING & PLANTING SEASONS AND TIMING CONDITIONS:
   A. UNLESS OTHERWISE DIRECTED IN WRITING, SEED LAWNS FROM MARCH 15 TO JUNE 15, AND FROM AUGUST 15 TO OCTOBER 15.
   B. UNLESS OTHERWISE DIRECTED IN WRITING PLANT TREES AND SHRUBS FROM MARCH 15 TO JUNE 1, AND FROM AUGUST 15 TO OCTOBER 30.
8. ALL LANDSCAPING SHALL BE MAINTAINED THROUGHOUT THE LIFE OF THE SITE.



TREE PLANTING DETAIL
NOT TO SCALE

EXISTING TREE & REMOVAL SCHEDULE:

1. 16" APPLE	19. 12" PINE
2. 12" APPLE	20. 14" PINE
3. 10" APPLE	21. 4" PINE
4. 22" SYCAMORE	22. 4" PINE
5. 20" SYCAMORE	23. 22" PINE
6. 14" PINE	24. 10" PINE
7. 14" PINE	25. 16" PINE
8. 10" PINE	26. 12" PINE
9. 24" SYCAMORE	27. 18" PINE
10. 14" PINE	28. 16" MAPLE
11. 24" SYCAMORE	29. 8" MAPLE TWIN
12. 4" PINE	30. 8" MAPLE
13. 6" PINE	31. 6" HACKBERRY
14. 6" PINE	32. 8" MAPLE
15. 6" PINE TWIN	33. 10" MAPLE TRIPLE
16. 6" PINE	34. 8" MAPLE
17. 4" PINE	35. 8" MAPLE CLUMP
18. 24" SYCAMORE	

NOTES:
1. TREE LOCATIONS BY BADEY & WATSON SURVEYING.
2. SPECIES ID PER BADEY & WATSON SURVEYING.
3. **TBR** = TO BE REMOVED

PLANTING SCHEDULE

TREES

KEY	QTY	BOTANICAL NAME	COMMON NAME	CALIPER	SPACING
Mv	5	MAGNOLIA VIRGINIANA	SWEETBAY MAGNOLIA	3 INCH (DBH)	AS SHOWN
Qr	8	QUERCUS RUBRA	RED OAK	3 INCH (DBH)	AS SHOWN
Ps	13	PINUS STROBUS	WHITE PINE	3 INCH (DBH)	AS SHOWN

TREES

KEY	QTY	BOTANICAL NAME	COMMON NAME	CALIPER	SPACING
Iv	16	ILEX VERTICILLATA	WINTERBERRY	3 GALLON	6 FT
Ig	28	ILEX GLABRA	INKBERRY	3 GALLON	6 FT
Ra	14	RHUS AROMATICA	AROMATIC SUMAC	3 GALLON	6 FT

APPLICANT'S CONSENT:

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LANDSCAPING PLAN
SCALE: 1" = 20'
GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 20 ft.

STATE OF NEW YORK DANIEL G. KOENIG 092715 LICENSED PROFESSIONAL ENGINEER
SEAL

HUDSON LAND DESIGN
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LANDSCAPING PLAN

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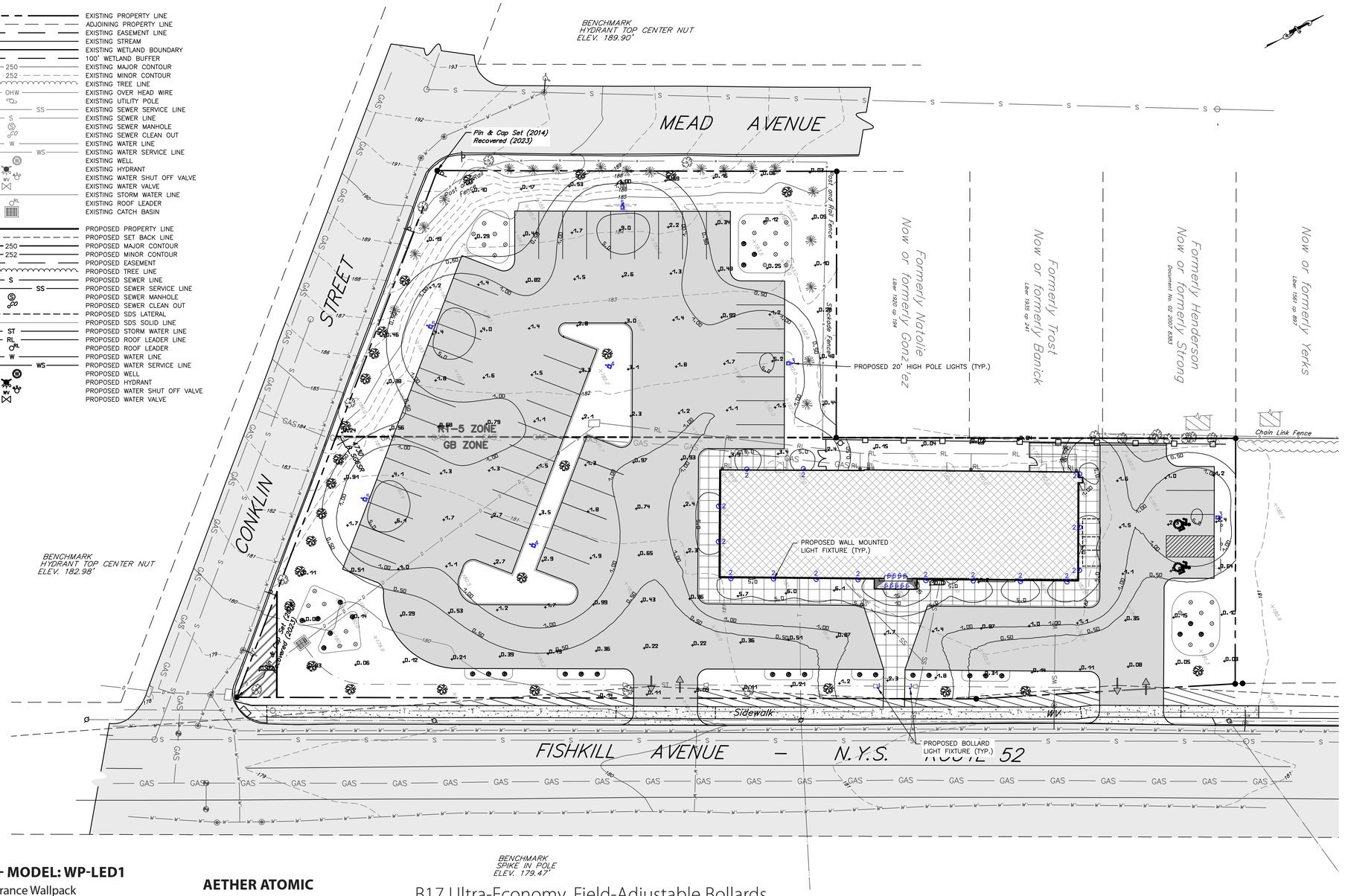
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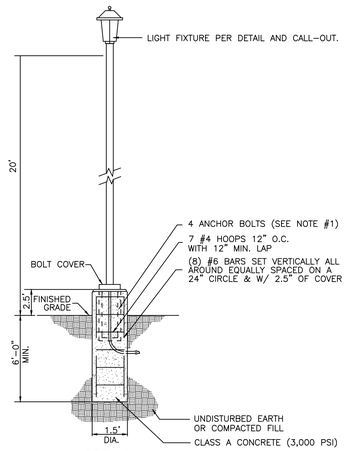
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LIGHTING NOTES:

1. ALL LIGHTING SHALL BE DARK SKY COMPLIANT WITH CUTOFF SHIELDS AS NOTED.
2. ILLUMINATION IN FOOT-CANDLES, ONLY CONSIDERS PROPOSED LIGHTING, AND WILL BE PROVIDED IN FUTURE SUBMITTALS.
3. EXISTING LIGHTING LEVELS ALONG CONKLIN STREET AND FISHKILL AVENUE NOT MODELED.
4. LIGHTING SHALL BE FROM DUSK TO DAWN.





SIDE VIEW
NOT TO SCALE

NOTES
1. LIGHT FIXTURE SHALL BE DIRECTED AND/OR SHADED AS NECESSARY TO PREVENT LIGHT FROM SPILLING OFF-SITE AND TO PREVENT UNREASONABLE GLARE FROM BEING OBSERVED ON ADJACENT ROADWAY OR PROPERTY.

POLE AND LUMINARE DETAIL
NOT TO SCALE

APPLICANT'S CONSENT:

THE UNDERSIGNED APPLICANT OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ _____
SGI – USA DATE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

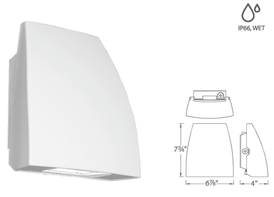
SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

FIN - MODEL: WP-LED1
Endurance Wallpack



AETHER ATOMIC
R1ASDL, R1ASPL - Square Downlight



B17 Ultra-Economy, Field-Adjustable Bollards



CALCULATION SUMMARY						
Name	Parameter	Min	Max	Average	Min/average	Min/max
PROPERTY BOUNDARIES	Perpendicular Illuminance (Adaptive)	0.011 fc	20.1 fc	1.46 fc	0.008	0.001

LUMINAIRE SCHEDULE

Index	MANUFACTURER	NAME	ITEM NUMBER	COLOR TEMPERATURE	Luminous flux	LUM WATTS	Connected load	QUANTITY	MOUNTING HEIGHT
1	RAB LIGHTING	B17 ULTRA-ECONOMY, FIELD-ADJUSTABLE BOLLARD	B17 19W 3000K	3000K	2722 lm	19 W	18.2 W	2	3'
2	WAC LIGHTING	ENDURANCE WALLPACK	WP-LED 127	3000K	2073 lm	27 W	27.9 W	15	13'
3	RAB LIGHTING	IVELOT FORWARD THROW	IVATFT-45L730U	3000K	4640 lm	45 W	37.9 W	2	20'
4	RAB LIGHTING	IVELOT TYPE V SQUARE	IVAT5S-130L730U	3000K	12663 lm	130 W	116.4 W	2	20'
5	RAB LIGHTING	IVELOT FORWARD THROW	IVATFT-75L730U	3000K	7463 lm	75 W	66.5 W	3	20'
6	WAC LIGHTING	AETHER ATOMIC SQUARE DOWNLIGHT	R1ASDL-WT(W-3000K)	3000K	825 lm	11 W	13 W	9	15'-7" TO 18'-5"

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	12/16/23	PER PLANNING BOARD COMMENTS	CMB				
2	1/30/24	PER PLANNING BOARD COMMENTS	CMB				

LIGHTING PLAN
SCALE: 1" = 20'
GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 20 ft.

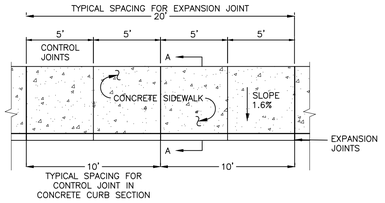
STATE OF NEW YORK
DANIEL G. KOENIG
083716
LICENSED PROFESSIONAL ENGINEER
SEAL

HUDSON LAND DESIGN
HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926

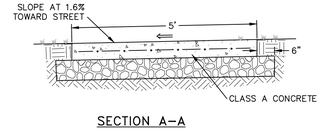
LIGHTING PLAN
409 FISHKILL AVE
409 FISHKILL AVE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6055-80-403061, 399053, 406047, 411056, 416064 & 418071

JOB #: 2023:032
DATE: 11/28/23
SCALE: AS SHOWN
TITLE: LT-1
SHEET: 8 OF 9

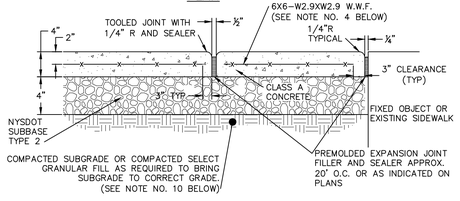
UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



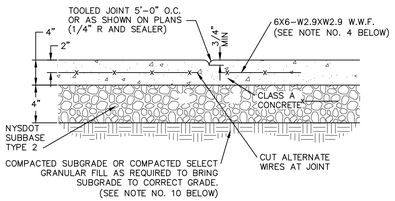
PLAN



SECTION A–A



EXPANSION JOINT

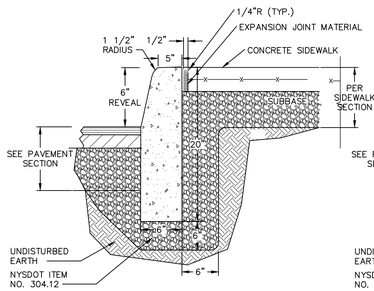


CONTROL JOINT

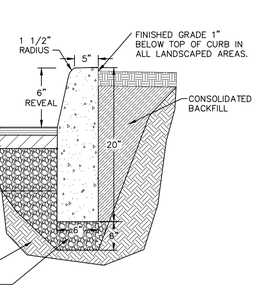
NOTES:

1. 10' SPACING OF CONTROL JOINTS SHALL BE USED FOR CAST IN PLACE CONCRETE CURBS.
2. MATERIAL AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED JANUARY 2, 2002, AND ALL ADDENDA THERETO; THE ONLY EXCEPTION BEING THAT THE WORK OF THIS CONTRACT SHALL BE MEASURED IN ENGLISH UNITS.
3. ALL CONCRETE SHALL BE 4,000 PSI CLASS A CONCRETE. CONCRETE MATERIALS, PLACEMENT, AND CONSTRUCTION SHALL CONFORM WITH SECTION 500 OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
4. REINFORCING STEEL FOR CONCRETE SHALL CONFORM WITH SECTION 556 – REINFORCING STEEL FOR CONCRETE STRUCTURES OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS AND AS SPECIFICALLY CALLED OUT IN THE DRAWINGS.
5. ALL EXPOSED SURFACED SHALL HAVE A BROOM TEXTURED FINISH.
6. EXPANSION JOINTS SHALL BE LOCATED A MAXIMUM OF 20' ON CENTER, OR AS INDICATED ON PLANS.
7. JOINTS SHALL NOT BE SAW CUT.
8. EXPOSED CONCRETE SURFACES SHALL BE TREATED WITH "SUREBOND"/"SAFEBOND" SB–7000 INTENSIFIER BRIGHT PROTECTOR AND SIDEWALK SEALER, OR EQUAL. RATE AND METHOD OF APPLICATION SHALL BE IN ACCORDANCE WITH MANUFACTURE'S RECOMMENDATIONS.
9. SUBBASE MATERIAL SHALL CONFORM WITH SECTION 304 OF THE ABOVE REFERENCED NYSDOT STANDARD.
10. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSE OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMATION WITH SECTION 203–EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
11. ALL WORK SHALL CONFORM WITH SECTION 608–SIDEWALK, DRIVEWAYS, AND BICYCLE PATHS OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
12. CONCRETE SHALL BE SEALED WITH A SALT RESISTANT SEALER.

CONCRETE SIDEWALK DETAIL
NOT TO SCALE



ABUTTING SIDEWALK

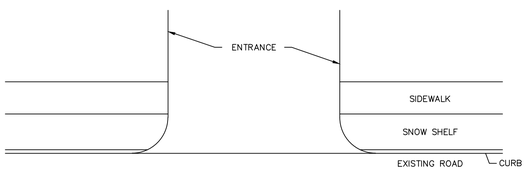


ABUTTING GRASS OR LANDSCAPE

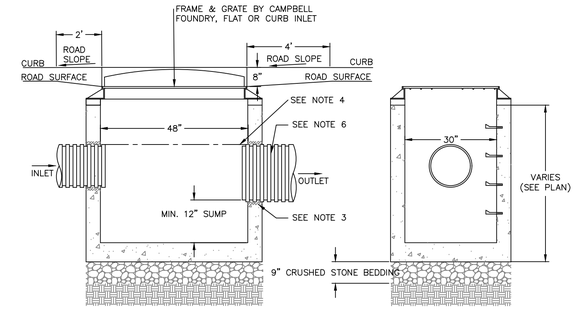
NOTES:

1. CONCRETE CURB SHALL BE 4,000 PSI CAST–IN–PLACE, AND IN ACCORDANCE WITH NYSDOT STANDARD SPECIFICATION SECTION 609.
2. EXPANSION JOINTS OF 1/2" CELLULOSE OR SIMILAR MATERIAL SHALL BE PLACED AT 10 FOOT INTERVALS.
3. FOR MOUNTABLE CURBS ABUTTING SIDEWALK OR OTHER HARDSCAPE, REFER TO "ABUTTING SIDEWALK" DETAIL.
4. CONCRETE SHALL BE SEALED WITH A SALT RESISTANT SEALER.

CAST–IN–PLACE CONCRETE CURB DETAIL
NOT TO SCALE



DOT ENTRANCE DETAIL
NOT TO SCALE

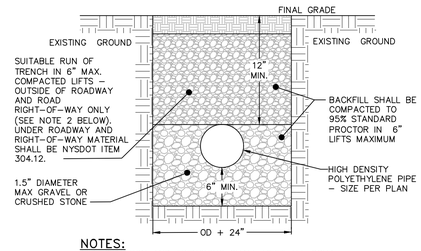


FRONT VIEW SIDE VIEW

NOTES:

1. PRECAST CONCRETE CATCH BASIN WITH CONCRETE STRENGTH OF 4,000 PSI @ 28 DAYS.
2. THE ENDS OF ALL PIPES SHALL BE CUT OFF FLUSH WITH THE INSIDE SURFACE OF THE CATCH BASIN AND PARGED AROUND.
3. PIPES SHALL BE PARGED AROUND INTERIOR AND EXTERIOR PRIOR TO BACKFILLING OF STRUCTURE. CONNECTIONS MADE WITHIN 10 FEET OF A WATER MAIN (OR SERVICE LINE) OR A SEWER MAIN (OR SERVICE LATERAL) SHALL BE MADE WATERTIGHT.
4. PROVIDE A MINIMUM 0.1' DROP BETWEEN INLET AND OUTLET INVERTS (MATCH CROWNS FOR PIPES WITH DIFFERENT SIZE) UNLESS OTHERWISE NOTED ON THE PLAN.
5. CATCH BASINS WITH AN INTERIOR DEPTH OF 4' AND GREATER SHALL BE FURNISHED WITH STEEL REINFORCED POLYPROPYLENE PLASTIC STEPS AT 12" INTERVALS.
6. HDPE PIPE SHALL BE PROVIDED WITH WATERTIGHT CONNECTIONS. ADS MODEL N12 WT IB OR APPROVED EQUAL.

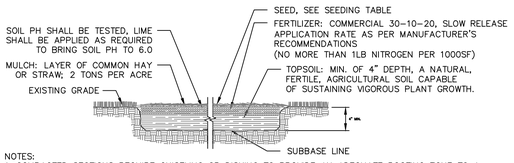
CATCH BASIN DETAIL
NOT TO SCALE



NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

STORM LINE TRENCH DETAIL
NOT TO SCALE



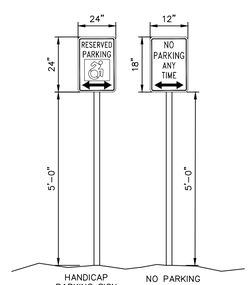
NOTES:

1. COMPACTED SECTIONS REQUIRE CHISELING OR DISKING TO PROVIDE AN ADEQUATE ROOTING ZONE TO A MINIMUM DEPTH OF 12"
2. SOIL AMENDMENTS SHOULD BE INCORPORATED INTO THE UPPER 2" OF SOILS BASED ON SOIL TESTING. IF SOIL MUST BE FERTILIZED BEFORE RESULTS OF A SOIL TEST CAN BE OBTAINED TO DETERMINE FERTILIZER NEEDS, APPLY COMMERCIAL FERTILIZER AT 600 POUNDS PER ACRE 5–5–10 OR EQUIVALENT.
3. PERMANENT SEEDINGS MAY BE MADE ANY TIME OF YEAR IF PROPERLY MULCHED AND ADEQUATE MOISTURE IS PROVIDED. LATE JUNE THROUGH EARLY AUGUST IS NOT OPTIMAL SEEDING PERIOD AS PORTIONS OF THE SEEDING MAY FAIL DUE TO DROUGHT AND HEAT. THESE AREAS MAY NEED RESEEDING IN LATE SUMMER/FALL OR THE FOLLOWING SPRING.
4. WATERING MAY BE ESSENTIAL TO ESTABLISH A NEW SEEDING WHEN A DROUGHT CONDITION OCCURS SHORTLY AFTER A NEW SEEDING EMERGES. DO NOT EXCEED THE APPLICATION RATE FOR THE SEED OR SUBSOIL.
5. SEEDING OPTION A FOR A SUNNY SITE TO BE USED, UNLESS OTHERWISE NOTED.

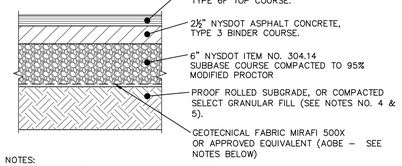
SEEDING TABLE

TYPE	SUNNY SITE:	SUNNY DROUGHTY SITE:	SHADY DRY SITE:	SHADY WET SITE:
OPTION A	65% CREEPING RED FESCUE 20% PERENNIAL RYE GRASS 15% FINE FESCUE 175 LBS PER ACRE	65% FINE FESCUE 15% PERENNIAL RYE GRASS 20% CREEPING FESCUE 220 LBS PER ACRE	65% FINE FESCUE 15% PERENNIAL RYE GRASS 20% CREEPING FESCUE 220 LBS PER ACRE	70% CREEPING RED FESCUE 30% BLEND OF SHADE–TOLERANT HARD FESCUE 130 POUNDS PER ACRE
OPTION B	100% CREEPING RED FESCUE 200 LBS PER ACRE	100% CREEPING RED FESCUE 200 LBS PER ACRE	80% BLEND OF SHADE–TOLERANT CEREAL RYE 20% PERENNIAL RYE 175 LBS PER ACRE	100% CHEWINGS FESCUE 200 LBS PER ACRE
OPTION C			100% CREEPING RED FESCUE 200 LBS PER ACRE	

TOPSOIL SEED, FERTILIZER AND MULCH DETAIL
NOT TO SCALE



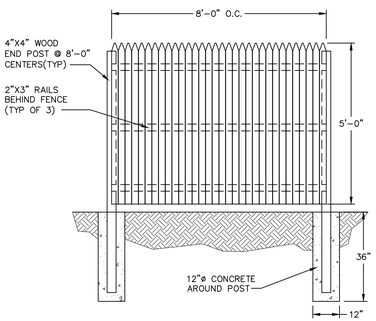
SIGN DETAILS
NOT TO SCALE



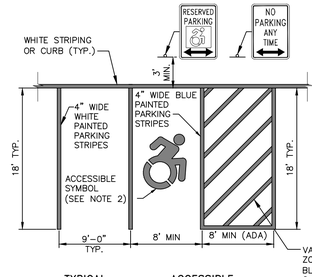
NOTES:

1. MATERIALS AND METHODS OF CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS, DATED JANUARY 2, 2002.
2. SUBGRADE SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS.
3. TACK COAT WHEN SPECIFIED OR CALLED OUT IN THESE DRAWINGS OR REQUIRED BY THE REFERENCED SPECIFICATIONS SHALL CONFORM WITH SECTION 407–TACK COAT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
4. WHERE IT IS NECESSARY TO PLACE FILL FOR PURPOSES OF BRINGING THE SUBGRADE ELEVATION UP TO A SPECIFIED GRADE, THE FILL MATERIAL PLACED SHALL BE IN CONFORMANCE WITH SECTION 203–EXCAVATION AND EMBANKMENT OF THE ABOVE REFERENCED NYSDOT STANDARD SPECIFICATIONS.
5. IT IS EXPECTED THAT THE EXISTING SITE SUB–SOILS ARE SAND AND GRAVEL IN NATURE (CALIFORNIA BEARING RATIO RANGE BETWEEN 40 AND 80) . IF UNSUITABLE SOILS ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR POSSIBLE MODIFICATIONS TO THE PAVEMENT DETAIL.

PAVEMENT SECTION DETAIL
NOT TO SCALE



WOOD STOCKADE FENCE DETAIL
NOT TO SCALE

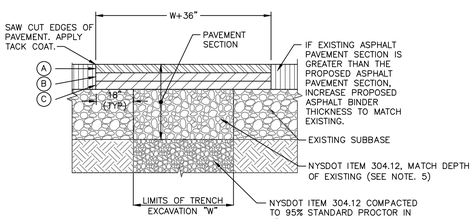


TYPICAL PARKING STRIPING ACCESSIBLE PARKING STRIPING

NOTES:

1. ALL DIMENSIONS SUBJECT TO CURRENT MUNICIPALITY ZONING AND SITE REGULATIONS.
2. PAINTED HANDICAP SYMBOL TO BE IN ACCORDANCE WITH NYSDOT AND ADA STANDARDS.
3. IF PARKING ABUTS A SIDEWALK, THEN THE REGULATORY SIGNS SHALL BE PLACED BEHIND THE SIDEWALK.
4. PARALLEL SPACES SHALL BE 10'W X 20L'.

PARKING AND STRIPING DETAIL
NOT TO SCALE



LEGENDS

CONKLIN STREET RESTORATION COURSES:

- (A) 1–1/2" ASPHALT CONCRETE TOP COURSE– NYSDOT TYPE 6F
- (B) 3–1/2" ASPHALT CONCRETE BINDER COURSE– NYSDOT TYPE 3
- (C) NO ASPHALTIC BASE COURSE

FISHKILL AVENUE RESTORATION COURSES:

- (A) 1–1/2" ASPHALT CONCRETE TOP COURSE– NYSDOT TYPE 6F
- (B) 2–1/2" ASPHALT CONCRETE BINDER COURSE– NYSDOT TYPE 3
- (C) 8" ASPHALTIC BASE COURSE– NYSDOT TYPE 1 (4" LIFTS)

NOTES:

1. SAW CUT MIN. 18" BEYOND EXCAVATION WITH SMOOTH EDGES. 18" JOINT BETWEEN EXISTING AND NEW TOP COURSE TO BE MILLED. JOINT TO BE SEALED WITH POLYMER MODIFIED SEALER.
2. FURNISH, PLACE, AND COMPACT SUBBASE IN TWO 4" LIFTS.
3. TACK COAT IN ACCORDANCE WITH NYSDOT STANDARD SPEC.
4. FURNISH AND PLACE ASPHALT CONCRETE PAVEMENT AS SPECIFIED.
5. PROVIDE 10" GRANULAR SUBBASE COURSE – NYSDOT ITEM 304.12 FOR CONKLIN STREET RESTORATION.

PAVEMENT RESTORATION DETAIL
NOT TO SCALE

APPLICANT'S CONSENT:

THE UNDERSIGNED APPLICANT OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ _____
SGI – USA DATE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____, 20_____ SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: DGK			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY
1	12/16/23	PER PLANNING BOARD COMMENTS	CMB				
2	1/30/24	PER PLANNING BOARD COMMENTS	CMB				

SEAL

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845–440–6926

CONSTRUCTION DETAILS

409 FISHKILL AVE

409 FISHKILL AVE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 6055–80–403061, 399053, 406047, 411056, 416064 & 418071

JOB #:	2023:032
DATE:	11/28/23
SCALE:	AS SHOWN
TITLE:	CD–1
SHEET:	9 OF 9

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW

LANC & TULLY
Engineering and Surveying, P.C.

February 9, 2024

Mr. John Gunn
Beacon Planning Board Chair
City of Beacon
1 Municipal Plaza
Beacon, NY 12508

RE: 409 Fishkill Ave.
SGI-USA Site Plan
Tax Nos. 6055-80-399053,
403061,406047, 411056, 416064 &
418071
City of Beacon

Dear Mr. Gunn:

My office has received the following regarding the proposed re-use of the building located at 409 Fishkill Avenue:

- Response correspondence dated January 30, 2024, from Hudson Land Design.
- Application for Special Use Permit dated December 14, 2023.
- Application for Subdivision Approval dated January 23, 2024.
- Construction cost estimate for right-of-way work, dated January 20, 2024, as prepared by Hudson Land Design.
- Plan titled "Consolidation & Dedication Plat prepared for DKH Realty LLC", dated January 30, 2024, as prepared by Badey & Watson Surveying & Engineering, DPC.
- Engineering plan set titled "409 Fishkill Avenue", consisting of sheets 1 of 9 through 9, with the latest revision date of January 30, 2024, as prepared by Hudson Land Design.

The proposed project, located at the intersection of Fishkill Avenue and Conklin Street, entails the re-use of the existing car dealership building located at 409 Fishkill Avenue as a place of worship. The project site consists of 6 different parcels, with two (2) of the parcels located in the R1-5 Zone and 4 of the parcels located in the GB (General Business) Zone, with the 6 parcels combined having a total area of ±1.183 acres. It should be noted that a "Place of worship" is allowed in all R1 zones, as well as the GB zone.

Based on our review of the above documents and plans, we would like to offer the following comments:

General Comments:

1. The applicant will be required to obtain a highway work permit for the project from either the NYSDOT or the City of Beacon for work within the road right-of-way.

2. We have reviewed the submitted construction cost estimate for the project, in the amount of $57,925.00, and find it to be acceptable. The Applicant will need to post the Performance bond prior to any work within the right-of-way, as well as establishing a construction inspection escrow in the amount of 6% of the bond value, or $3,475.50 for inspection of work to be performed within the public right-of-way.

3. The Consolidation & Dedication Plat was found to be acceptable. A written description shall be prepared for the 298 square foot area to be dedicated to the City of Beacon at the intersection of Fishkill Avenue and Conklin Street.

Engineering Plans:

1. The new sidewalk to be installed along the length of the project adjacent to Fishkill Avenue, as shown on the plans shall be installed having a width of 5-feet, in accordance with the construction detail provided on Sheet 9 of 9.

2. Sheet 8 of 9 calls out a 20-foot-high light pole to the rear of the building for the parking lot, adjacent a residential lot, that appears it could have spillover lighting into the neighboring parcel. Section 223-14, Paragraph B(1), states "The type, location, and shading of such lighting shall prevent the spillover of light onto any adjacent residential or multifamily property or direct glare onto any public sidewalk or street." The photometrics for this light pole should be extended out to show where 0.0 is actually achieved. It may require that a different head fixture be used, or the light pole be lowered in height.

3. The concern noted for the above light pole should also be checked for the building mounted lights on the rear of the building, as well as the light pole at the ADA compliant parking on the right side of the site.

This completes our review at this time. Further comments may be provided based on future submissions. **A written response letter addressing each of the above comments should be provided with the next submission.** If you have any questions, or require any additional information, please do not hesitate to contact our office.

Very truly,

LANC & TULLY, P.C.

John Russo, P.E.

cc: Natalie Quinn, Planner
Jennifer Gray, Esq.
Bruce Flower, Building Inspector

KARC
PLANNING CONSULTANTS, INC.

TO: John Gunn, Chair, and the City of Beacon Planning Board

FR: KARC Planning Consultants, Inc.

DATE: February 12, 2024

RE: 409 Fishkill Avenue Site Plan, Soka Gakkai International - USA

I have reviewed the following revised and additional materials regarding the proposed re-use of the building located at 409 Fishkill Avenue:

- Cover letter by Hudson Land Design, dated January 30, 2024
- Special Use Permit Application, dated January 24, 2024
- Subdivision Application, dated January 23, 2024
- Right-of-Way Work Cost Estimate by Hudson Land Design, dated January 30, 2024
- Property Deed (6 sheets), recorded October 2, 2000
- NYS Roadway Inventory Map, undated
- Consolidated & Dedication Plat by Stephen Miller, Badey & Watson Surveying & Engineering, dated September 26, 2023. Printed January 30, 2024
- Site Plan Set (9 sheets) by Hudson Land Design, with all plans dated November 28, 2023, last revised January 30, 2024.

Project Description:

The applicant is proposing to convert an existing one-story auto dealer building, having a total of 5,454 square feet, into a place of worship with 50 parking spaces. The 1.183-acre site includes four parcels in the General Business (GB) district and two rear parcels in the R1-5 Residential district. The applicant is proposing to consolidate two parcels within the GB district (Parcels No.411056 and No.416064) so that the building structure no longer straddles two separate lots of record. Place of worship is a permitted use within the GB district. A special use permit has been submitted to seek approval for off-street parking as a primary use within the GB district.

Comments & Recommendations:

At the Planning Board meeting on January 8, 2024 the Board indicated that they are satisfied with the parking layout as proposed. Our recommendations regarding layout have therefore been removed.

1. **Principle & Accessory Uses:**
   The submitted application for special use permit should be updated to indicate that a special use permit is also being requested for parking in the R1-5 district pursuant to Section 223-26.C(8). The application submitted only references the GB district.

2. **Landscaping:**
   The applicant's cover letter notes that salt-intolerant scrub oaks have been changed to more resilient red oaks, but the landscaping plan on Sheet LS-1 does not reflect that change. Sheet LS-1 should be updated to reflect the applicant's intention to plant red oaks along the front property line.

3. **Lighting Plan:**
   The proposed Lighting Plan (Sheet LT-1) should clearly demonstrate compliance with all requirements of Section 223-14B. The following clarifications are required:
   - The provided photometric plan does not provide light levels beyond the property boundary. However, there are fixtures near the northeast and west property line that have light levels as high as 0.64 fc near the property boundary. It is unlikely that these fixtures would not cause spillover of light onto any adjacent properties. The photometric plan should be extended out to show where 0.0 fc is achieved.
   - The applicant should confirm that all proposed fixtures are full cutoff fixtures which will not emit light above the horizontal plane. The level of cutoff for all proposed fixtures should be added as a column on the Luminaire Schedule table on Sheet LT-1
   - Pedestrian and parking lot areas should average approximately one footcandle. The average footcandle for the proposed lighting plan is 1.46 fc. Only high security areas may require lighting in the two to five footcandle range, while over five footcandles is usually a waste of energy and a source of glare. The lighting plan shows a handful of extreme hotspots, ranging as high as 9fc, which is greater than the average internal store environment (5fc). The Planning Board may wish to discuss the intent of the lighting plan and whether lower lighting levels can be achieved while maintaining the desired level of security.
   - The provided pole and luminare detail does not match any of the proposed luminare profiles. The detail shows an acorn style fixture whereas a cobra style fixture is proposed. The correct profile should be shown, and the Planning Board may wish to confirm the color of the proposed base and pole.

If you have any questions or need additional information, please feel free to contact me.

Natalie Quinn
Beacon Planning Consultant

Cc: Bruce Flower, Building Inspector
Jennifer L. Gray, Esq., City Attorney
John Russo, P.E., City Engineer
Daniel Koehler, P.E., Project Engineer

City of Beacon Planning Board Agenda
02/14/2024

Title:

Continued review of application for Site Plan and Subdivision approval, Mixed-Use Commercial and Residential, 45 Beekman Street, High Street, and High Street, submitted by Beekman Arts Center LLC and Bay Ridge Studios LLC.

ATTACHMENTS

45 Beekman & High St PB 2.14.24 Supplemental Submission Cover Letter 1.30.24.pdf

45 Beekman & High St PB 2.14.24 Supplemental Submission with Exhibits A-E and Attachments 1-31-24.pdf

45 Beekman & High St PB 2.14.24 Exhibit A - Revised Site Plan Application.pdf

45 Beekman & High St PB 2.14.24 Exhibit B - Revised Full Environmental Assessment Form.pdf

45 Beekman & High St PB 2.14.24 Exhibit C - Response to Comments Memo by Aryeh J. Siegel 1-26-24.pdf

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45 Beekman & High St PB 2.14.24 Preliminary Site Plan by Colliers Eng & Aryeh Siegel, Architect 1-30-24.pdf

45 Beekman & High St PB 2.14.24 Preliminary Draft Stormwater Pollution Prevention Plan by Colliers Eng 1-30-24.pdf

45 Beekman & High St PB 2.14.24 Colliers Eng Traffic & Parking Study Memo 1-31-24, Study rev 11-28-28, Study rev 1-31-24.pdf

45 Beekman & High St PB 2.14.24 Architectural Plan Set by Aryeh Siegel, Architect 11-28-23, and rev 1-29-24.pdf

Lanc & Tully 45 Beekman Street 02-12-24 review.pdf

KARC Review PB_45 Beekman_2.12.2024.pdf

Creighton Manning 20240209_45 Beekman Rev1_124008.pdf

CUDDY +FEDER LLP

300 Westage Business Center, Suite 380
Fishkill, New York 12524
T 845 896 2229
F 845 896 3672
cuddyfeder.com

Taylor M. Palmer, Esq.
tpalmer@cuddyfeder.com

January 30, 2024

VIA E-MAIL
AND HAND DELIVERY
Hon. John Gunn
and Members of the Planning Board
City of Beacon
1 Municipal Plaza
Beacon, New York 12508

Re: Application for Site Plan & Subdivision Approval for Proposed Mixed-Use Development
Supplemental Submission
Premises: 45 Beekman Street, High Street, & High Street Beacon, New York
Tax Parcel IDs: (5955-19-706012, 5954-26-689990 & 5954-26-781983)

Dear Chairman Gunn and Members of the Planning Board:

On behalf of Beekman Arts Center LLC and Bay Ridge Studios LLC (the "Applicants"), the owners of the above-referenced Premises, we respectfully submit this letter and the referenced enclosures in furtherance of an Application for Site Plan and Subdivision Approval (the "Application"), proposing to redevelop the Premises by constructing two (2) new mixed-use buildings that will be comprised of commercial (retail/office) and tenant amenity spaces on the first floors, together with multi-family residences on the upper floors (the "Project).[1]

Since the Applicants' initial appearance before the Planning Board on December 12, 2023, the Applicants have updated the enclosed Site Plan and Architectural Plan sets, to now include a landscaping plan with detailed plant schedule, zoning compliant lighting plan, grading, utility, erosion & sediment control plans, and construction details.[2] Additionally, in response to the Board and its consultants' preliminary comments at the December meeting, the Applicants are proposing certain Project updates, which are further detailed below herein.

[1] Note: Updated versions of the Site Plan Application and Full Environmental Assessment Form ("EAF"), reflective of the Project revisions noted herein are annexed hereto as **Exhibit A** – Revised Site Plan Application and **Exhibit B** – Revised EAF.

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THE UPDATED MIXED-USE BUILDING PROGRAM:

As is more fully detailed in the enclosed Site Plans and Architectural Plans, the Applicants' proposed mixed-use development comprised of two (2) four (4)-story mixed-use buildings (i.e., the Beekman and High Street Buildings), now includes 64 total dwelling units, where 65 was previously proposed. As a result, the Beekman Building now includes 36 dwelling units comprising 16 one (1) bedroom and 20 two (2) bedroom units, as opposed to 37 units with 20 one (1) bedrooms and 17 two (2) bedrooms. The unit count and the unit mix update are proposed in recognition of the market demand for two (2) bedroom units. In addition to the Beekman Building unit changes, the High Street Building's first floor was reconfigured to create an exterior, covered arcade walkway to access the commercial and residential entryways, thereby reducing the commercial square footage in that Building from 5,418 to 3,930 square feet. No changes are proposed to the unit count or mix in the High Street Building, and the total square footage comprising each Building remains the same.[3]

As is detailed more fully within the enclosed Landscape Plan, the Project's landscape design strives to balance the functional needs of the Premises and the surrounding area, while meeting and exceeding the City's requirements for a fifteen percent (15%) landscaped area. Indeed, the Project site is comprised of approximately twenty-three percent (23%) landscaped area consisting of a variety of deciduous, evergreen, and ornamental trees, set amongst various flowering and evergreen shrub species, and perennials and ornamental grasses. Evergreen plantings are strategically positioned along boundary lines in order to provide ample screening and privacy for the abutting properties and shield the parking areas from the pedestrian or vehicular traffic passing the site. Additional trees and shrubs are proposed along the facades of each Building in order to enhance and complement the surrounding streetscape. Accordingly, it is respectfully submitted that the refined proposal satisfies the landscaping requirement in the Linkage ("L") Zoning District.[4]

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[4] Note: As the Board may be aware, and pursuant to the recommendation of the Board at its December meeting, the Applicants continue to investigate the chain of title to the right-of-way areas that abut the Property along Beekman Street and NYS Route 9D (North Avenue) in order to more fully assess the Project design and activation of those respective streets. It is worth noting that the Dutchess County Planning Department, in its General Municipal Law § 239 review of the Project, similarly acknowledged an

Additionally, the Applicants' traffic consultant, Colliers Engineering & Design, P.C. ("Colliers"), has revised the Traffic & Parking Study for the Project, dated November 28, 2023, last revised January 26, 2024 (the "Traffic Study") in order to account for the Applicants' proposed reduction in total dwelling units and updated parking data recently published by the Institute of Transportation Engineers ("ITE") and contained in the Parking Generation Manual, 6th Edition. *See* enclosed Traffic Study. As was discussed with the Board and as is further detailed within the Traffic Study, Colliers prepared an additional shared parking analysis (the "Second Shared Parking Analysis") accounting for the Project's proximity to the train station, in addition to adjusting the Study for the proposed 64 units and regarding the updated ITE data. Based on this Second Shared Parking Analysis, it is anticipated that 83 off-street parking spaces will satisfy the total anticipated parking demand for the Project. As a result, the Applicants revised the enclosed Site Plans to include 83 subsurface and surface off-street parking spaces, where 89 spaces were previously proposed. 49 surface parking spaces are proposed behind the new Buildings (previously 54) and 34 spaces (previously 35) are proposed within the garage level beneath the Beekman Building. A total of five (5) ADA spaces will service the Project.

Since completing the revised Traffic Study, the Project was updated in a manner that reduced the total commercial square feet in the High Street Building, as is noted above. As a result, Colliers has prepared the enclosed memorandum addressing the Project's traffic and parking conditions relative to the updated, reduced proposal (the "Traffic & Parking Memorandum").[5] As is further detailed in this Traffic & Parking Memorandum, the updated Project is anticipated to result in fewer vehicle trips during all peak hours and a peak parking demand of 78 off-street parking spaces, the latter of which is based upon the adjusted Second Shared Parking Analysis. Accordingly, the parking demands for the Project will be met by the currently proposed 83 parking spaces.

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[5] Note: Colliers is preparing a revised Traffic & Parking Study more fully addressing this Project update, which will be provided to this Board in a forthcoming supplemental submission.

Moreover, as this Board may be aware, the Dutchess County Transportation Council ("DCTC") previously compiled a Complete Streets Analysis for Beekman Street dated January 29, 2018 (the "DCTC Analysis"). The revised Traffic Study addresses the DCTC Analysis, finding that the Project does not interfere with the implementation of any of the recommendations contained therein. Furthermore, the Traffic Study acknowledges that the modifications at the intersection of North Avenue/Beekman Street intersection will consider the recommendation of the DCTC Analysis.

Lastly, in order to assist this Board and its consultants in its environmental review of the Project, the Applicants' engineer, Colliers, has prepared a Preliminary Draft Stormwater Pollution Prevention Plan, a copy of which is enclosed.

INDEX OF ENCLOSURES:[6]

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We look forward to appearing at this Board's regular meeting on February 14th for continued review of the Project, at which time the Applicants respectfully request the Board consider authorizing circulation of its intent to serve as Lead Agency for this Unlisted Action pursuant to the State Environmental Quality Review Act ("SEQR"). In the meantime, should this Board or City Staff have any questions or comments with regard to the foregoing, please do not hesitate to contact us.

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300 Westage Business Center, Suite 380
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T 845 896 2229
F 845 896 3672
cuddyfeder.com

Taylor M. Palmer, Esq.
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January 30, 2024

VIA E-MAIL
AND HAND DELIVERY
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Allison Fausner, Esq.

Exhibit A

APPLICATION FOR SITE PLAN APPROVAL

Submit to Planning Board Secretary, One Municipal Plaza, Suite One, Beacon, New York 12508

IDENTIFICATION OF APPLICANT

Name: Beekman Arts Center LLC & Bay Ridge Studios LLC

Address: 268 Main Street

Beacon NY 12508

Signature:

Date: 1/30/24

Phone: 917-468-8473

(For Official Use Only)

	Date	Initials
Application & Fee Rec'd		
Initial Review		
Public Hearing		
Conditional Approval		
Final Approval		

IDENTIFICATION OF REPRESENTATIVE / DESIGN PRFESSIONAL

Name: Taylor M. Palmer, Esq. - Cuddy & Feder LLP
Attorney for the Applicant

Address: 300 Westage Business Center, Suite 380

Fishkill, NY 12524

Phone: 914-761-1300

Fax: 914-761-5378

Email address: tpalmer@cuddyfeder.com

IDENTIFICATION OF SUBJECT PROPERTY:

Property Address: 45 Beekman Street, High Street and High Street

Tax Map Designation: Section 5955 Block 19 26 Lot(s) 706012 781983 & 689990

Land Area: 1.78 +/- acres

Zoning District(s) L, RMF-1.5 and HDLO

DESCRIPTION OF PROPOSED DEVELOPMENT:

Proposed Use: Mixed-use development comprised of apartments and commercial space

Gross Non-Residential Floor Space: Existing 15,190 sf Proposed 12,600 sf

TOTAL: 12,600 sf

Dwelling Units (by type): Existing 0 Proposed 64

TOTAL: 64

ITEMS TO ACCOMPANY THIS APPLICATION

a. One electronic and five (5) **folded** paper copies of a site location sketch showing the location of the subject property and the proposed development with respect to neighboring properties and developments.
b. One electronic and five (5) **folded** paper copies of the proposed site development plan, consisting of sheets, showing the required information as set forth on the back of this form and other such information as deemed necessary by the City Council or the Planning Board to determine and provide for the property enforcement of the Zoning Ordinance.
c. One electronic and five (5) **folded** paper copies of additional sketches, renderings or other information.
d. An application fee, payable to the City of Beacon, computed per the attached fee schedule.
e. An initial escrow amount, payable to the City of Beacon, as set forth in the attached fee schedule.

INFORMATION TO BE SHOWN ON SITE LOCATION SKETCH

a. Property lines, zoning district boundaries and special district boundaries affecting all adjoining streets and properties, including properties located on the opposite sides of adjoining streets.
b. Any reservations, easements or other areas of public or special use which affect the subject property.
c. Section, block and lot numbers written on the subject property and all adjoining properties, including the names of the record owners of such adjoining properties.

INFORMATION TO BE SHOWN ON THE SITE DEVELOPMENT PLAN

a. Title of development, date and revision dates if any, north point, scale, name and address of record owner of property, and of the licensed engineer, architect, landscape architect, or surveyor preparing the site plan.
b. Existing and proposed contours at a maximum vertical interval of two (2) feet.
c. Location and identification of natural features including rock outcrops, wooded areas, single trees with a caliper of six (6) or more inches measured four (4) feet above existing grade, water bodies, water courses, wetlands, soil types, etc.
d. Location and dimensions of all existing and proposed buildings, retaining walls, fences, septic fields, etc.
e. Finished floor level elevations and heights of all existing and proposed buildings.
f. Location, design, elevations, and pavement and curbing specifications, including pavement markings, of all existing and proposed sidewalks, and parking and truck loading areas, including access and egress drives thereto.
g. Existing pavement and elevations of abutting streets, and proposed modifications.
h. Location, type and design of all existing and proposed storm drainage facilities, including computation of present and estimated future runoff of the entire tributary watershed, at a maximum density permitted under existing zoning, based on a 100 year storm.
i. Location and design of all existing and proposed water supply and sewage disposal facilities.
j. Location of all existing and proposed power and telephone lines and equipment, including that located within the adjoining street right-of-way. All such lines and equipment must be installed underground.
k. Estimate of earth work, including type and quantities of material to be imported to or removed from the site.
l. Detailed landscape plan, including the type, size, and location of materials to be used.
m. Location, size, type, power, direction, shielding, and hours of operation of all existing and proposed lighting facilities.
n. Location, size, type, and design of all existing and proposed business and directional signs.
o. Written dimensions shall be used wherever possible.
p. Signature and seal of licensed professional preparing the plan shall appear on each sheet.
q. Statement of approval, in blank, as follows:

Approved by Resolution of the Beacon Planning Board
on the _____ day of _____, 20_____
subject to all conditions as stated therein

_____ _____
Chairman, City Planning Board **Date**

APPLICATION FEES

Site Plan	**Residential $500 + $250 per dwelling unit** **Commercial $500 + $250 per 1,000 s.f.**
Special Use Permit	**Residential $500 + $250 per dwelling unit** **Commercial $500 + $250 per 1,000 s.f.**
Subdivision	**$ 750 for 2-4 lots + $100 per lot** **$1,000 for 5 or more lots + $300 per lot**

ESCROW FEES

ALL SUBDIVISIONS, AND RESIDENTIAL SITE PLAN AND SUP APPLICATIONS

No. of Lots or Dwelling Units	Initial Deposit	Depleted to	Replenishment
1-5 (including lot-line realignment)	$ 3,000	$ 1,000	Current bills + $1,200
6-15	$ 9,000	$ 2,500	Current bills + $1,200
Over 15	$ 18,000	$ 5,000	Current bills + $6,000

NON-RESIDENTIAL SITE PLAN AND SUP APPLICATIONS

	Initial Deposit	Depleted to	Replenishment
Existing Buildings/Change of Use with no site development	$ 1,800	$ 1,000	Current bills + $600
Up to 3,000 s.f. gross floor area	$ 3,125	$ 1,000	Current bills + $1,200
3,000 to 10,000 s.f. gross floor area	$ 3,000 + $0.50 per sq.ft. over 3,000	$ 2,500	Current bills + $3,000
Over 10,000 s.f. gross floor area	$ 9,000 + $0.50 per sq.ft. over 10,000	$ 2,500	Current bills + $3,000

ARCHITECTURAL REVIEW OR CERTIFICATE OF APPROPRIATENESS ***(if not currently before PB)***

* *if required by Chairman*	Initial Deposit	Depleted to	Replenishment
Single Family House*	$500	$250	Current bills + $250
All others*	$500	$250	Current bills + $250

CITY OF BEACON
SITE PLAN SPECIFICATION FORM

Name of Application: 45 Beekman & High Street Subdivision and Site Plan Application

PLEASE INDICATE WHETHER THE SITE PLAN DRAWINGS SHOW THE SUBJECT INFORMATION BY PLACING A CHECK MARK IN THE APPROPRIATE BOXES BELOW.		
	YES	**NO**
The site plan shall be clearly marked "Site Plan", it shall be prepared by a legally certified individual of firm, such as a Registered Architect or Professional Engineer, and it shall contain the following information:		
LEGAL DATA		
Name and address of the owner of record.		
Name and address of the applicant (if other than the owner).		
Name and address of person, firm or organization preparing the plan.		
Date, north arrow, and written and graphic scale.		
NATURAL FEATURES		
Existing contours with intervals of two (2) feet, referred to a datum satisfactory to the Planning Board.		
Approximate boundaries of any areas subject to flooding or stormwater overflows.		
Location of existing watercourses, wetlands, wooded areas, rock outcrops, isolated trees with a diameter of eight (8) inches or more measured three (3) feet above the base of the trunk, and any other significant existing natural features.		
EXISTING STRUCTURES, UTILITIES, ETC.		
Outlines of all structures and the location of all uses not requiring structures. Paved areas, sidewalks, and vehicular access between the site and public streets.		
Locations, dimensions, grades, and flow direction of any existing sewers, culverts, water lines, as well as other underground and above ground utilities within and adjacent to the property.		
Other existing development, including fences, retaining walls, landscaping, and screening.		
Sufficient description or information to define precisely the boundaries of the property.		
The owners of all adjoining lands as shown on the latest tax records.		
The locations, names, and existing widths of adjacent streets and curb lines.		
Location, width, and purpose of all existing and proposed easements, setbacks, reservations, and areas dedicated to private or public use within or adjacent to the		

properties.		
PROPOSED DEVELOPMENT	**YES**	**NO**
The location, use and design of proposed buildings or structural improvements.		
The location and design of all uses not requiring structures, such as outdoor storage (if permitted), and off-street parking and unloading areas.		
Any proposed division of buildings into units of separate occupancy.		
The location, direction, power, and time of use for any proposed outdoor lighting.		
The location and plans for any outdoor signs.		
The location, arrangement, size(s) and materials of proposed means of ingress and egress, including sidewalks, driveways, or other paved areas.		
Proposed screening and other landscaping including a planting plan and schedule prepared by a qualified individual or firm.		
The location, sizes and connection of all proposed water lines, valves, and hydrants and all storm drainage and sewer lines, culverts, drains, etc.		
Proposed easements, deed restrictions, or covenants and a notation of any areas to be dedicated to the City.		
Any contemplated public improvements on or adjoining the property.		
Any proposed new grades, indicating clearly how such grades will meet existing grades of adjacent properties or the street.		
Elevations of all proposed principal or accessory structures.		
Any proposed fences or retaining walls.		
MISCELLANEOUS		
A location map showing the applicant's entire property and adjacent properties and streets, at a convenient scale.		
Erosion and sedimentation control measures.		
A schedule indicating how the proposal complies with all pertinent zoning standards, including parking and loading requirements.		
An indication of proposed hours of operation.		
If the site plan only indicates a first stage, a supplementary plan shall indicate ultimate development.		

For all items marked "NO" above, please explain below why the required information has not been provided:

Please see enclosed Application Narrative

Applicant/Sponsor Name: Beekman Arts Center LLC & Bay Ridge Studios LLC

Signature:

By: Saleh Hassen, Member

Date: November 21, 2023

APPLICATION PROCESSING RESTRICTION LAW

Affidavit of Property Owner

Property Owner: Beekman Arts Center LLC

If owned by a corporation, partnership or organization, please list names of persons holding over 5% interest.

Abdel Hassen, Saleh Hassen and Sam Hassen

List all properties in the City of Beacon that you hold a 5% interest in:

45 Beekman (5955-19-706012)

Applicant Address: 268 Main Street, Beacon NY 12508

Project Address: 45 Beekman and High Street

Project Tax Grid # 5955-19-706012; 5954-26-68990 and 5954-26-781983

Type of Application Subdivision and Site Plan Application

Please note that the property owner is the applicant. "Applicant" is defined as any individual who owns at least five percent (5%) interest in a corporation or partnership or other business.

I, Saleh Hassen, Member of Beekman Arts Center LLC, the undersigned owner of the above referenced property, hereby affirm that I have reviewed my records and verify that the following information is true.

1. No violations are pending for ANY parcel owned by me situated within the City of Beacon — X
2. Violations are pending on a parcel or parcels owned by me situated within the City of Beacon — N/A
3. ALL tax payments due to the City of Beacon are current — X
4. Tax delinquencies exist on a parcel or parcels owned by me within the City of Beacon — N/A
5. Special Assessments are outstanding on a parcel or parcels owned by me in the City of Beacon — N/A
6. ALL Special Assessments due to the City of Beacon on any parcel owned by me are current — X

Signature of Owner Beekman Arts Center LLC
Saleh Hassen, Member

Title if owner is corporation

Office Use Only:	NO	YES	Initial
Applicant has violations pending for ANY parcel owned within the City of Beacon (Building Dept.)	___	___	_____
ALL taxes are current for properties in the City of Beacon are current (Tax Dept.)	___	___	_____
ALL Special Assessments, i.e. water, sewer, fines, etc. are current (Water Billing)	___	___	_____

APPLICATION PROCESSING RESTRICTION LAW

Affidavit of Property Owner

Property Owner: Bay Ridge Studios LLC

If owned by a corporation, partnership or organization, please list names of persons holding over 5% interest.

Abdel Hassen, Saleh Hassen and Sam Hassen

List all properties in the City of Beacon that you hold a 5% interest in:

High Street & High Street (5954-26-68990 and 5954-26-781983)

Applicant Address: 268 Main Street, Beacon NY 12508

Project Address: 45 Beekman and High Street

Project Tax Grid # 5955-19-706012; 5954-26-68990 and 5954-26-781983

Type of Application Subdivision and Site Plan Application

Please note that the property owner is the applicant. "Applicant" is defined as any individual who owns at least five percent (5%) interest in a corporation or partnership or other business.

I, Saleh Hassen, Member of Bay Ridge Studios LLC, the undersigned owner of the above referenced property, hereby affirm that I have reviewed my records and verify that the following information is true.

1. No violations are pending for ANY parcel owned by me situated within the City of Beacon — X
2. Violations are pending on a parcel or parcels owned by me situated within the City of Beacon — N/A
3. ALL tax payments due to the City of Beacon are current — X
4. Tax delinquencies exist on a parcel or parcels owned by me within the City of Beacon — N/A
5. Special Assessments are outstanding on a parcel or parcels owned by me in the City of Beacon — N/A
6. ALL Special Assessments due to the City of Beacon on any parcel owned by me are current — X

Signature of Owner Bay Ridge Studios LLC

Saleh Hassen, Member

Title if owner is corporation

Office Use Only:	NO	YES	Initial
Applicant has violations pending for ANY parcel owned within the City of Beacon (Building Dept.)	___	___	_____
ALL taxes are current for properties in the City of Beacon are current (Tax Dept.)	___	___	_____
ALL Special Assessments, i.e. water, sewer, fines, etc. are current (Water Billing)	___	___	_____

FOR OFFICE USE ONLY
Application #

CITY OF BEACON
1 Municipal Plaza, Beacon, NY
Telephone (845) 838-5000 • http://beaconny.gov/

ENTITY DISCLOSURE FORM

(This form must accompany every land use application and every application for a building permit or certificate of occupancy submitted by any entity)

Disclosure of the names and addresses of all persons or entities owning any interest or controlling position of any Limited Liability Company, Partnership, Limited Partnership, Joint Venture, Corporation or other business entity (hereinafter referred to as the "Entity") filing a land-use application with the City is required pursuant to Section 223-61.4 of the City Code of the City of Beacon. If any Member of the Entity is not a natural person, then the names and addresses as well as all other information sought herein must be supplied about the non-natural person member of that Entity, including names, addresses and Formation filing documents. Applicants shall submit supplemental sheets for any additional information that does not fit within the below sections, identifying the Section being supplemented.

SECTION A.

IF AFFIANT IS A PARTNERSHIP, JOINT VENTURE OR OTHER BUSINESS ENTITY, EXCEPT A CORPORATION:

Name of Entity Beekman Arts Center LLC	Address of Entity 268 Main Street Beacon NY 12508
Place where such business entity was created New York State DOS	Official Registrar's or Clerk's office where the documents and papers creating entity were filed New York State DOS
Date such business entity or partnership was created 4/6/2018	Telephone Contact Information 917-468-8473

IF AFFIANT IS A CORPORATION:

Name of Entity	Telephone Contact Information
Principal Place of Business of Entity	Place and Date of incorporation
Method of Incorporation	Official place where the documents and papers of incorporation were filed

SECTION B. List all persons, officers, limited or general partners, directors, members, shareholders, managers, and any others with any interest, mortgage, encumbrance or other interest (recorded or unrecorded) in or with the above referenced

Entity. List all persons to whom corporate stock has been pledged, mortgaged or encumbered and with whom any agreement has been made to pledge, mortgage or encumber said stock. Use a supplemental sheet to list additional persons.

Name	Resident Address	Resident Telephone Number	Nature and Extent of Interest
Abdel Hassen	153-12 80th St. Howard Beach, NY 11414	917-468-8473	50%
Saleh Hassen	157-44 84th St. Howard Beach, NY 11414	917-468-8473	25%
Sam Hassen	164-40 88th St Howard Beach, NY 11414	917-560-4026	25%

SECTION C. List all owners of record of the subject property or any part thereof.

Name	Residence or Business Address	Telephone Number	Date and Manner title was acquired	Date and place where the deed or document of conveyance was recorded or filed.
Beekman Arts Center LLC	268 Main Street Beacon NY 12508	(917)468-8473	Deed dated 1/18/2017	Recorded 2/8/2017 Dutchess County Clerk

SECTION D. Is any owner, of record or otherwise, an officer, director, stockholder, agent or employee of any person listed in Section B-C?

☐ **YES** ☒ **NO**

Name	**Employer**	**Position**

SECTION E. Is any party identified in Sections A- C an officer, elected or appointed, or employee of the City of Beacon or related, by marriage or otherwise, to a City Council member, planning board member, zoning board of appeals member or employee of the City of Beacon ?

☐ **YES** ☒ **NO**

If yes, list every Board, Department, Office, agency or other position with the City of Beacon with which a party has a position, unpaid or paid, or relationship and identify the agency, title, and date of hire.

Agency	**Title**	**Date of Hire, Date Elected, or Date Appointed**	**Position or Nature of Relationship**

SECTION F. Was any person referred to in Sections A-D known by any other name within five (5) years preceding the date of the application?

☐ **YES** ☒ **NO**

Current Name	**Other Names**

SECTION G. List the names and addresses of each person, business entity, partnership and corporation in the chain of title of the subject premises for the five (5) years next preceding the date of the application.

Name	**Address**
Beekman Art Center LLC	268 Main Street Beacon NY 12508 Deed Doc# 02-2017-1113

SECTION H. If the applicant is not a record owner of the subject property, describe the applicant's interest in the subject property and the relationship the applicant has to the record owner(s) of the subject property.

N/A

SECTION I. If the applicant is a contract vendee, a duplicate original or photocopy of the full and complete contract of purchase, including all riders, modification and amendments thereto, shall be submitted with the application. Any sensitive or confidential information may be redacted from the contract prior to production.

SECTION J. N/A

1. Where the record owner or contract vendee is a corporation, the following additional information shall be submitted**:**

Name of the Corporation	Telephone Contact Information
Principal Business Address	Place and Date of Incorporation
Method of Incorporation	Official place where the documents and papers of incorporation were filed

2. Please provide the following information for every incorporator, officer, director and shareholder of the corporation.

Name	**Residence or business address**	**Telephone number**

3. Have any shares of the stock of the corporation or of any stockholder been pledged, mortgaged or encumbered?

☐ **YES** ☐ **NO**

If so, please list the name and address of each person having, holding, owning or claiming any such interest.

Name	**Address**

SECTION K. Have the present owners entered into a contract for the sale of all or any part of the subject property and, if in the affirmative, please provide a duplicate original or photocopy of the fully and complete contract of sale, including all riders, modifications and amendments thereto.

☐ **YES** ☒ **NO**

I, Saleh Hassen being first duly sworn, according to law, deposes and says that I am (Title) Member, an active and qualified member of the Beekman Arts Center LLC, a business duly authorized by law to do business in the State of New York, and that the statements made herein are true, accurate, and complete.

(Print) Saleh Hassen, Member
Beekman Arts Center LLC

(Signature) _____

FOR OFFICE USE ONLY
Application #

CITY OF BEACON
1 Municipal Plaza, Beacon, NY
Telephone (845) 838-5000 • http://beaconny.gov/

ENTITY DISCLOSURE FORM

(This form must accompany every land use application and every application for a building permit or certificate of occupancy submitted by any entity)

Disclosure of the names and addresses of all persons or entities owning any interest or controlling position of any Limited Liability Company, Partnership, Limited Partnership, Joint Venture, Corporation or other business entity (hereinafter referred to as the "Entity") filing a land-use application with the City is required pursuant to Section 223-61.4 of the City Code of the City of Beacon. If any Member of the Entity is not a natural person, then the names and addresses as well as all other information sought herein must be supplied about the non-natural person member of that Entity, including names, addresses and Formation filing documents. Applicants shall submit supplemental sheets for any additional information that does not fit within the below sections, identifying the Section being supplemented.

SECTION A.

IF AFFIANT IS A PARTNERSHIP, JOINT VENTURE OR OTHER BUSINESS ENTITY, EXCEPT A CORPORATION:

Name of Entity Bay Ridge Studios LLC	Address of Entity 268 Main Street Beacon NY 12508
Place where such business entity was created New York State DOS	Official Registrar's or Clerk's office where the documents and papers creating entity were filed New York State DOS
Date such business entity or partnership was created 7/18/2018	Telephone Contact Information 917-468-8473

IF AFFIANT IS A CORPORATION:

Name of Entity	Telephone Contact Information
Principal Place of Business of Entity	Place and Date of incorporation
Method of Incorporation	Official place where the documents and papers of incorporation were filed

SECTION B. List all persons, officers, limited or general partners, directors, members, shareholders, managers, and any others with any interest, mortgage, encumbrance or other interest (recorded or unrecorded) in or with the above referenced

Entity. List all persons to whom corporate stock has been pledged, mortgaged or encumbered and with whom any agreement has been made to pledge, mortgage or encumber said stock. Use a supplemental sheet to list additional persons.

Name	Resident Address	Resident Telephone Number	Nature and Extent of Interest
Abdel Hassen	153-12 80th St. Howard Beach, NY 11414	917-468-8473	50%
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SECTION C. List all owners of record of the subject property or any part thereof.

Name	Residence or Business Address	Telephone Number	Date and Manner title was acquired	Date and place where the deed or document of conveyance was recorded or filed.
Bay Ridge Studios LLC	268 Main Street Beacon NY 12508	917-468-8473	Deed dated 12/31/2001	Recorded 2/3/2022 Dutchess County Clerk

SECTION D. Is any owner, of record or otherwise, an officer, director, stockholder, agent or employee of any person listed in Section B-C?

☐ **YES** ☒ **NO**

Name	**Employer**	**Position**

SECTION E. Is any party identified in Sections A- C an officer, elected or appointed, or employee of the City of Beacon or related, by marriage or otherwise, to a City Council member, planning board member, zoning board of appeals member or employee of the City of Beacon ?

☐ **YES** ☒ **NO**

If yes, list every Board, Department, Office, agency or other position with the City of Beacon with which a party has a position, unpaid or paid, or relationship and identify the agency, title, and date of hire.

Agency	**Title**	**Date of Hire, Date Elected, or Date Appointed**	**Position or Nature of Relationship**

SECTION F. Was any person referred to in Sections A-D known by any other name within five (5) years preceding the date of the application?

☐ **YES** ☒ **NO**

Current Name	**Other Names**

SECTION G. List the names and addresses of each person, business entity, partnership and corporation in the chain of title of the subject premises for the five (5) years next preceding the date of the application.

Name	**Address**	
Bay Ridge Studios LLC	268 Main Street Beacon NY 12508	Deed Doc# 02-2019-1172
William F. Vassalo	15 Sunset Hill Road Fishkill, NY 12524	Deed Doc# 02-2002-90

SECTION H. If the applicant is not a record owner of the subject property, describe the applicant's interest in the subject property and the relationship the applicant has to the record owner(s) of the subject property.

N/A

SECTION I. If the applicant is a contract vendee, a duplicate original or photocopy of the full and complete contract of purchase, including all riders, modification and amendments thereto, shall be submitted with the application. Any sensitive or confidential information may be redacted from the contract prior to production.

SECTION J. N/A

1. Where the record owner or contract vendee is a corporation, the following additional information shall be submitted**:**

Name of the Corporation	Telephone Contact Information
Principal Business Address	Place and Date of Incorporation
Method of Incorporation	Official place where the documents and papers of incorporation were filed

2. Please provide the following information for every incorporator, officer, director and shareholder of the corporation.

Name	**Residence or business address**	**Telephone number**

3. Have any shares of the stock of the corporation or of any stockholder been pledged, mortgaged or encumbered?

☐ **YES** ☐ **NO**

If so, please list the name and address of each person having, holding, owning or claiming any such interest.

Name	**Address**

SECTION K. Have the present owners entered into a contract for the sale of all or any part of the subject property and, if in the affirmative, please provide a duplicate original or photocopy of the fully and complete contract of sale, including all riders, modifications and amendments thereto.

☐ **YES** ☒ **NO**

I, Saleh Hassen being first duly sworn, according to law, deposes and says that I am (Title) Member, an active and qualified member of the Bay Ridge Studios LLC, a business duly authorized by law to do business in the State of New York, and that the statements made herein are true, accurate, and complete.

(Print) Saleh Hassen, Member

Bay Ridge Studios LLC

(Signature) _____

Exhibit B

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: 45 Beekman Street Mixed-Use Development - Application for Site Plan and Subdivision Approval		
Project Location (describe, and attach a general location map): 45 Beekman Street & High Street, Beacon, NY 12508		
Brief Description of Proposed Action (include purpose or need): Application for Site Plan and Subdivision approval to construct two (2) 4-story mixed-use buildings with ground floor commercial space and multi-family residential units in place of the existing commercial building on the 45 Beekman parcel. The High Street parcels are vacant. The building proposed on the current 45 Beekman Street lot will include 8,670 square feet commercial space on the first floor and a total of 36 dwelling units. The building proposed on the current High Street lots will include 3,930 square feet commercial space on the first floor and a total of 28 dwelling units. These buildings will incorporate below market rate units in accordance with the City's Affordable-Workforce Housing local law. The project will include off-street surface and garage parking facilities (83 total spaces) using existing driveway connections to Tompkins Avenue and Beekman Street. The proposal also includes water and sanitary sewer service connections to City of Beacon mains, and stormwater management features necessary to support the development.		
Name of Applicant/Sponsor/Owner: Beekman Arts Center LLC & Bay Ridge Studios LLC	Telephone: 917-468-8473 E-Mail: nidalhassen7@gmail.com	
Address: 268 Main Street		
City/PO: Beacon	State: NY	Zip Code: 12508
Project Contact (if not same as sponsor; give name and title/role): Taylor Palmer, Esq., Cuddy & Feder LLP (Attorney for the Applicant)	Telephone: 914-761-1300 E-Mail: tpalmer@cuddyfeder.com	
Address: 445 Hamilton Avenue, Fl. 14		
City/PO: White Plains	State: NY	Zip Code: 10601
Property Owner (if not same as sponsor):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)		
Government Entity	**If Yes: Identify Agency and Approval(s) Required**	**Application Date (Actual or projected)**
a. City Counsel, Town Board, or Village Board of Trustees ☐Yes☑No		
b. City, Town or Village Planning Board or Commission ☑Yes☐No	Planning Board: Site Plan, Subdivision, LWRP Consistency, COA	November 2023
c. City, Town or Village Zoning Board of Appeals ☐Yes☑No		
d. Other local agencies ☐Yes☑No		
e. County agencies ☑Yes☐No	Dutchess County Planning: GML referral Dutchess County Health: Water Extension	
f. Regional agencies ☐Yes☑No		
g. State agencies ☑Yes☐No	NYSDEC: Stormwater SPDES NYSDOT: Hwy. Work Permit, U&O & Utility Permit	
h. Federal agencies ☐Yes☑No		

i. Coastal Resources.
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☑Yes☐No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☑Yes☐No
iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☑Yes☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes☑No

If Yes, identify the plan(s):

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes☑No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
Linkage District (L), One-Family Residential District (R1.75) and Historic District and Landmark Overlay District

b. Is the use permitted or allowed by a special or conditional use permit? ☐ Yes ☑ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Beacon City School District

b. What police or other public protection forces serve the project site?
City of Beacon Police Department

c. Which fire protection and emergency medical services serve the project site?
City of Beacon Fire Department

d. What parks serve the project site?
Pete & Toshi Seeger Riverfront Park, Long Dock Park, Memorial Park

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Mixed-Use; commercial (office & retail) and multi-family residential

b. a. Total acreage of the site of the proposed action? 1.78 acres
b. Total acreage to be physically disturbed? +/- 2.4 acres acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 1.78 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☑ Yes ☐ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
Lot line adjustment
ii. Is a cluster/conservation layout proposed? ☐ Yes ☑ No
iii. Number of lots proposed? 1
iv. Minimum and maximum proposed lot sizes? Minimum 1.78 Maximum 1.78

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: ±18 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☑ Yes ☐ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				64 Units
At completion of all phases				64 Units

g. Does the proposed action include new non-residential construction (including expansions)? ☑ Yes ☐ No

If Yes,

i. Total number of structures 2

ii. Dimensions (in feet) of largest proposed structure: ≤48 height; 65 width; and 217 length

iii. Approximate extent of building space to be heated or cooled: ±86,000 square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐ Yes ☑ No

If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ Other specify: _____

iii. If other than water, identify the type of impounded/contained liquids and their source. _____

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No

If Yes:

i .What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. _____

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No

If yes, describe. _____

v. What is the total area to be dredged or excavated? _____ acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan: _____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐Yes ☐No
If Yes, describe:

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐Yes ☐No
If Yes:

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:

c. Will the proposed action use, or create a new demand for water? ☑Yes ☐No
If Yes:

i. Total anticipated water usage/demand per day: 11,910 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑Yes ☐No
If Yes:

- Name of district or service area: City of Beacon (PWS ID# 1302780)
- Does the existing public water supply have capacity to serve the proposal? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No
- Do existing lines serve the project site? ☑Yes ☐No

iii. Will line extension within an existing district be necessary to supply the project? ☐Yes ☑No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
- Source(s) of supply for the district:

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐Yes ☑No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project: N/A

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: N/A gallons/minute.

d. Will the proposed action generate liquid wastes? ☑Yes ☐No
If Yes:

i. Total anticipated liquid waste generation per day: 11,910 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each): Sanitary Wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑Yes ☐No
If Yes:

- Name of wastewater treatment plant to be used: City of Beacon WWTP
- Name of district: City of Beacon
- Does the existing wastewater treatment plant have capacity to serve the project? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No

- Do existing sewer lines serve the project site? ☑ Yes ☐ No
- Will a line extension within an existing district be necessary to serve the project? ☐ Yes ☑ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐ Yes ☑ No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

N/A

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

None

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑ Yes ☐ No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 1.31 acres (impervious surface)

_____ Square feet or 1.78 acres (parcel size)

ii. Describe types of new point sources. Drainage discharges from stormwater management facilities.

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Stormwater runoff will be direct overland to on-site collection structures (drain inlets or catch basins) and conveyed via piping to on-site management facilities.

- If to surface waters, identify receiving water bodies or wetlands: N/A
- Will stormwater runoff flow to adjacent properties? ☑ Yes ☐ No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑ Yes ☐ No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑ Yes ☐ No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Delivery vehicles

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

Power generator

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

N/A

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐ Yes ☑ No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐ Yes ☐ No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____ Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____ Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____ Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____ Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☑Yes ☐No

The enclosed Traffic Study prepared the Applicant's traffic consultant demonstrates that the Project includes proposed mitigation measures that will prevent any adverse impacts.

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☑ Evening ☑Weekend

☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): Estimate 1-2 Delivery Trucks/Day & 1 Garbage Truck/week

iii. Parking spaces: Existing 40 Proposed 83 Net increase/decrease +43

iv. Does the proposed action include any shared use parking? ☑Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: N/A

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☑Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☑Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☑Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☑Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: TBD

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): Local Utility Provider

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☑No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7AM-9PM
- Saturday: 7AM-9PM
- Sunday: 7AM-9PM
- Holidays: Varies

ii. During Operations:

- Monday - Friday: 9AM-6PM
- Saturday: 9AM-6PM
- Sunday: Varies
- Holidays: Varies

In accordance with City of Beacon Noise Ordinance (CH.149)

Will vary based on commercial tenants

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

During construction: On-site generators & construction equipment during the times & duration to comply with City Noise Ordinance

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☑ Yes ☐ No

Describe: The development proposes to remove some existing trees along Beekman Street for streetscape improvements & sidewalk connections to the project site.

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Pole mounted & building mounted fixtures for illumination of the parking & drive aisles (20 foot max. ht.) and some bollard lighting (4 foot ht.) for some of the proposed walkways. These are all LED light sources and full cut-off style housings.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☑ Yes ☐ No

Describe: The development proposes to remove some existing trees along Beekman Street for streetscape improvements & sidewalk connections to the project site.

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures: _____

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored _____

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities: _____

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☑ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: ±2 tons per Month (unit of time)
- Operation : ±5.8 tons per Month (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: Recycle excess or scrap construction materials.
- Operation: Recycle glass, plastics and cardboard.

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: Local hauling company & solid waste landfill.
- Operation: Local hauling company & solid waste landfill.

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☑ Urban ☐ Industrial ☑ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

Single and Multi-family Residential to the North & West, Commercial to the East and City of Beacon Hall & Police Department to the South.

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.81	1.31	+0.5
• Forested	0	0	0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	0
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: landscaped area	0.97	0.47	-0.5

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑ Yes ☐ No

If Yes,

i. Identify Facilities:

Jenny's Group Family Daycare, Astor Head Start Center

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No

Not to owner's knowledge

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No

☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☑ Yes ☐ No

If yes, provide DEC ID number(s): V00293, 314069, 546031

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

All locations off-site: V00293: Doral Hat Property, 1 West Main St.; 314069: CH-MGP, River Street; Hudson River PCB Sediments, Hudson River

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? >6.5 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %

c. Predominant soil type(s) present on project site:

DwB - Dutchess-Cardigan complex	100 %
	%
	%

d. What is the average depth to the water table on the project site? Average: >6.5 feet

e. Drainage status of project site soils:

☑	Well Drained:	100 % of site
☐	Moderately Well Drained:	% of site
☐	Poorly Drained	% of site

f. Approximate proportion of proposed action site with slopes:

☑	0-10%:	77.5 % of site
☑	10-15%:	6.5 % of site
☑	15% or greater:	16 % of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐ Yes ☑ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐ Yes ☑ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐ Yes ☑ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:
Typical Urban Wildlife

n. Does the project site contain a designated significant natural community? ☐ Yes ☑ No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation):
ii. Source(s) of description or evaluation:
iii. Extent of community/habitat:
- Currently: acres
- Following completion of project as proposed: acres
- Gain or loss (indicate + or -): acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑ Yes ☐ No

If Yes:
i. Species and listing (endangered or threatened):
Atlantic Sturgeon, Shortnose Sturgeon, Indiana Bat (Auto-generated by NYSDEC EAF Mapper)

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐ Yes ☑ No

If Yes:
i. Species and listing:

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐ Yes ☑ No
If yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐ Yes ☑ No
If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? ☐ Yes ☑ No
i. If Yes: acreage(s) on project site?
ii. Source(s) of soil rating(s):

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐ Yes ☑ No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐ Yes ☑ No
If Yes:
i. CEA name:
ii. Basis for designation:
iii. Designating agency and date:

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☑ Yes ☐ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☑ Historic Building or District

ii. Name: Bogardus--DeWindt House, Lower Main Street Historic District

iii. Brief description of attributes on which listing is based:

The site is located 0.05 miles from the Bogardus DeWindt House, and 0.10 miles from the Lower Main Street Historic District.

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Dennings Point (State Park), Hudson Highlands (SASS)

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): Dennings Point (State Park), Hudson Highlands (SASS)

iii. Distance between project and resource: 1 & 1.6 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

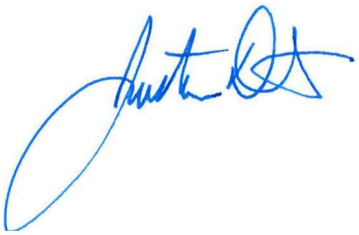
Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

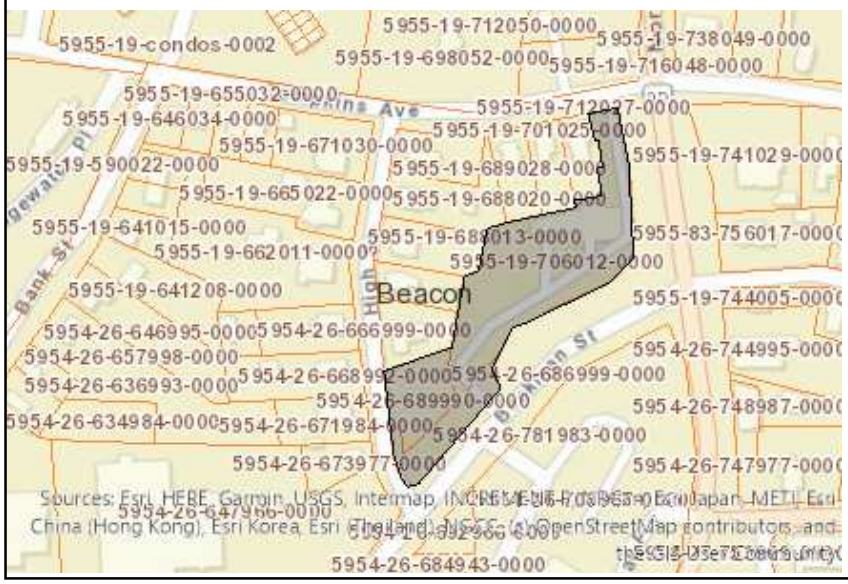
~~Applicant/Sponsor~~ Name Justin Dates, RLA,Colliers Engineering&Design Date January 30, 2024

Signature  Title Department Manager

PRINT FORM

EAF Mapper Summary Report

Wednesday, October 11, 2023 11:33 AM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	Yes
B.i.ii [Local Waterfront Revitalization Area]	Yes
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	V00293, 314069, 546031
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	No
E.2.h.iii [Surface Water Features]	No
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	Yes

E.2.o. [Endangered or Threatened Species - Name]	Atlantic Sturgeon, Shortnose Sturgeon, Indiana Bat
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name]	Bogardus--DeWindt House, Lower Main Street Historic District
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

Exhibit C

ARYEH SIEGEL
ARCHITECT

John Gunn - Planning Board Chairman
City of Beacon
One Municipal Plaza
Beacon, NY 12508

Re: 45 Beekman Street & High Street, Beacon, New York
Site Plan Application – Responses to Comments

January 26, 2024

Dear Chairman Gunn and Members of the Planning Board,

Below please find our responses to the comments included in John Clarke Planning and Design's Memorandum, dated December 8, 2023, and Lanc & Tully's letter dated December 8, 2023.

John Clarke Planning and Design Comment Responses:

1. To assist the Board is assessing any potential impacts on adjacent properties, the first sheet should include an aerial that shows the location of buildings on the surrounding parcels.

   Response: An aerial view is included on the Site Plan sheet.

2. The Sheet 1 Parking Requirements should be consistent with the assumptions and total parking required in the Traffic & Parking Study.

   Response: The parking requirements have been coordinated with the assumptions and total parking shown in the Traffic & Parking Study.

3. Sheet 2 should include the location, size, and species of all trees on the site over 6 inches in diameter and identify any trees that are to be removed.

   Response: Sheet 2 will include the locations of trees over 6" diameter, and identify trees to be removed.

4. The applicant is proposing 89 off-street parking spaces, while 109 spaces are required under the zoning evaluation in the Traffic & Parking Study. The Study also makes the case for a 20-space

84 Mason Circle | ajs@ajsarch.com | *Tel* 845 838 2490
Beacon, New York 12508 | www.ajsarch.com | *Fax* 845 838 2657

reduction under the provisions in Section 223-41.21F(3), including proximity to the Train Station and a shared parking analysis for the mixed-use proposal. The Planning Board's transportation consultant should review the Study and provide comments and recommendations.

Response: Comment acknowledged. As is further detailed within the revised Traffic & Parking Study enclosed in this supplemental submission, the applicant is now proposing a total of 83 off-street parking. This revised amount results from the applicant's proposed reduction in total dwelling units in addition to the implementation of updated Institute of Transportation Engineers parking data and a shared parking analysis accounting for the project site's proximity to the train station.

5. The Board should discuss if portions of the parking lots comply with the setbacks and screening provisions in Section 223-41.21F(1).

   Response: Comment acknowledged.

6. The cover sheet is labeled as a Sketch Site Plan and the set is incomplete. Future submittals will need a Landscaping Plan with a detailed plant schedule, a Lighting Plan with fixture specifications that demonstrate compliance with Section 223-14B, engineering sheets, construction details, and building elevations with major dimensions, materials, and colors noted.

   Response: Comment acknowledged. The enclosed full Site Plan set includes a landscaping plan with detailed plant schedule, zoning compliant lighting plan, grading, utility, erosion & sediment control plans, and construction details. Progress plans and views of the building designs has been provided. Detailed building elevations with major dimensions, materials, and colors will be provided in future submissions as the design is reviewed by the Architectural Review Board.

7. The Sheet 3 Garage Plan shows one ADA space, while the Sheet 1 note implies that 4 ADA spaces are in the garage. Also, a few of the garage spaces are too narrow and cars in the two spaces at the far end of the garage seem to have no way of easily backing out of the spaces.

   Response: A second ADA parking space has been added inside the garage. The garage layout has been revised to provide full-width parking spaces throughout. The two spaces at the far end of the garage have been revised for easier access and maneuverability.

8. The LWRP consistency justification is acceptable and the proposal appears to present no conflicts the City's waterfront area policies.

   Response: Comment acknowledged.

9. Once the plans are developed further, the building design should be referred to the Architectural Review Subcommittee. Future graphics should show rooftop projections.

   Response: Comment acknowledged.

Please refer to Collier's letter for responses to Lanc & Tully comments. Thank you. Please let me know if you have any questions.

Sincerely,



Aryeh Siegel
Aryeh Siegel, Architect

Exhibit D

555 Hudson Valley Avenue Suite 101 New Windsor New York 12553
Main: 877 627 3772

Colliers Engineering & Design

January 30, 2024

John Gunn, Chairman
City of Beacon Planning Board
1 Municipal Plaza
Beacon, NY 12508

45 Beekman Street & High Street – Mixed-Use Project
Parcels: 5954-26-689990 & 781983 and 5955-19-706012
City of Beacon, Dutchess County, NY
Colliers Engineering & Design Project No. 23010468A

Dear Chairman Gunn and the Members of the Planning Board,

Below please find our responses to a comment letter received from Lanc & Tully dated December 8, 2023. The comments have been repeated here for clarity:

SEQRA Comments:

Comment 1. The calculations for the proposed water and sewer usage shall be provided.

Response 1: ***The estimated water & sewer flows in the EAF were calculated using the 2014 NYSDEC Design Standards for Intermediate Sized Wastewater Treatment Systems, the proposed project has an estimated average daily flow of 11,810 GPD. This was calculated as follows:***

- ***33, 1-bedroom Units (33 units * 1-Bedroom per unit * 110 GPD per bedroom) = 3,630 GPD***
- ***32, 2-bedroom Units (32 units * 2-Bedrooms per unit * 110 GPD per bedroom) = 7,040 GPD***
- ***7,044 SF of Retail Space (7,044 SF * 0.1 GPD per SF) = 705 GPD***
- ***7,044 SF of Office Space (Estimated 29 Employees * 15 GPD per Employee) = 435 GPD***
- ***Total estimated project flows = 11,810 GPD***

The flow generated for the office & retail space was not adjusted for the allowable 20% reduction for water saving plumbing fixtures.

Please also note that the scope of the project was reduced by (1) one residential unit to 64 total units but an increase in total bedrooms to 99 (97 previously) and the commercial space in Building #2 (adjacent to High Street) was reduced to a total of 3,930 S.F. (5,418 S.F. previously). These project modifications added 100 GPD for an updated total of 11,910 GPD for the project.

Comment 2. The applicant shall seek a letter from the Beacon Water & Sewer Superintendent to verify that there is sufficient water and sewer to service the project.

Colliers Engineering & Design

Response 2: ***A copy of the will serve letter dated 1/25/2024 from Superintendent Balicki has been included in this supplemental submission. This confirms water and sewer service for the previously estimated demand of 11,810 GPD. As noted above, the project's estimated demand increased slightly to 11,910 GPD however, this total does not account for the allowable 20% reduction for water saving fixtures for the commercial uses.***

General Comments:

Comment 1. A lot-line merger plan shall be prepared for the project.

Response 1: ***A lot-line merger plan is being prepared by the Project Surveyor and will be provided to the Board in a future submission.***

Comment 2. Based upon the submitted EAF, the applicant has noted that they will require approvals from the NYSDOT and Dutchess County Department of Health.

Response 2: ***Correct. The approvals noted are still anticipated for the project. An updated EAF indicating certain project updates has been enclosed with this supplemental submission.***

Comment 3. The applicant's consultant shall conduct an Inflow & Infiltration (I&I) Study of the existing site and building, and provide a certified written report to the City of Beacon of the findings. Possible cross-connections to the City's sanitary sewer collection system include roof-leaders, sump pumps, existing site drains, etc. shall be identified. If any cross-connections are found, the report shall include these findings along with the volume of I&I being introduced into the sanitary sewer collection system, and the proposed remediation for the cross-connection(s) found.

Response 3: ***An Inflow & Infiltration Study will be provided for the project within a future submission. Further investigation into the existing utility routings is being conducted by the Project Surveyor.***

Comment 4. A stormwater pollution prevention plan (SWPPP) shall be prepared for the project.

Response 4: ***Colliers Engineering & Design (CED) has prepared a Preliminary SWPPP for the project and it has been included in this supplemental submission for review.***

Comment 5. As the project progresses, the plan set shall be updated to include utility plans, landscaping plans, lighting plans, grading plans, signage & striping plans, erosion & sediment control plans, and construction details pertinent to the construction of the project.

Response 5: ***CED has prepared a Preliminary Site Plan set which includes the above referenced plans for the project and it has been included in this supplemental submission.***

Colliers Engineering & Design

Comment 6. The current plans shall be updated to reflect the water, sewer, storm drainage and other utility pipe runs that are currently crossing and/or servicing the site, as well as those utility pipe runs located along and in the adjoining roads to the site. This information should include the size of the pipes, pipe material, pipe inverts in structures, etc.

Response 6: ***Current information from the project survey maps have been utilized and referenced for the existing conditions in developing the Preliminary Site Plans provided with this supplemental submission. As mentioned above, further investigation into the existing utility routings is being conducted by the Project Surveyor.***

Comment 7. A copy of the survey prepared for the parcels that make up the project site shall be submitted. The survey shall be signed and sealed.

Response 7: ***Signed & sealed copies of the latest survey maps for the project site will be provided to the Board in a future submission.***

Comment 8. Sheet 2 of 5 includes a note in several locations stating "All property lines have been adjusted to be a minimum of 25' from the center line of the road". The plan should show the property lines as to where they currently exist without adjustment, and an offer of dedication to the City of Beacon be prepared for those areas as to where the property line is to be adjusted so that it is 25-feet from the centerline of the road.

Response 8: ***The Project Surveyor will provide clarification to the Board in a future submission.***

Comment 9. Sheet 2 of 5 has Route 9D labeled as Tompkins Avenue. This should be revised to North Avenue.

Response 9: ***Road Names have been updated on the project plans as needed.***

Comment 10. Sheet 2 of 5 should be updated to reflect all utilities located within the neighboring roads, as well as running through the site, as per Comment No. 6 above.

Response 10: ***See response #6 above.***

Comment 11. The "Existing Conditions" plan shall be updated to include a note as to where the boundary survey information and topography were obtained.

Response 11: ***The Cover Sheet of the Preliminary Site Plan set references the mapping for the project site boundary and topographic information.***

Comment 12. As the retaining walls exceed 4-feet in height, the retaining walls shall be designed by a licensed engineer in the State of New York. Design drawings of the wall(s), along with the calculations for the wall design, shall be submitted for review. The applicant should also provide details of the wall on the plans for review by the Planning Board.

Colliers Engineering & Design

Response 12: ***Refer to Sheet #17 of the Preliminary Site Plans for a construction detail of the proposed retaining walls. The detail notes the need for signed & sealed wall design plans and calculations. These will be provided for review under future submission.***

Comment 13. The plans shall take into account snow storage areas for the proposed project.

Response 13: ***Refer to Sheet #3 of the Preliminary Site Plan set for proposed snow storage areas.***

Comment 14. Additional elevation views should be provided with views from Route 9D and Tompkins Avenue. The current elevation views that have been provided should be labeled as to what side of the building is being viewed (north, east, etc.).

Response 14: ***The Project Architect is developing additional elevations plans as requested and will be provided to the Board in a future submission.***

If you have any questions regarding the above responses or updated project documents please feel free to call me at 845.564.4495.

Sincerely,

Colliers Engineering & Design, Architecture, Landscape Architecture, Surveying, CT P.C.

Justin E. Dates, R.L.A.
Department Manager

cc: File

R:\Projects\2023\23010468A\Correspondence\OUT\240130_JED Comment Response-2.docx

Exhibit E

CITY OF BEACON
New York

WATER DEPARTMENT 845-831-3136

To: Justin Dates, R.L.A.
Colliers Engineering & Design

January 25, 2024

Re: Water and Sewer Will Serve Request
For 45 Beekman & High Street – Mixed-Use Project
Dated January 16, 2024

Justn Dates,

I have reviewed the above referenced letter and calculations for possible water and sanitary sewer demands for the proposed 45 Beekman Street and High Street project. Based on the estimated average daily flow of 11,810 gallons per day of both water and sewer, the City of Beacon can provide water to the project and accept sanitary sewer from the project. Please note that a more detailed sanitary sewer analysis may required by the Dutchess County Department of Health and the City of Beacon Planning Board prior to connecting the sanitary sewer system.

Currently the City of Beacon does not have restrictions on connection points for the water and sanitary sewer. I will recommend that the project seek to make the connections in Beekman Street and not North Ave/Rt D due to disruptions in traffic. I will also recommend that the connection points be finalized as soon as possible, especially if connecting to the utilities in Beekman Street as Beekman Street may be resurfaced this year.

Respectfully,

Edward Balicki
City of Beacon
Superintendent of Water and Sewer
845-831-3136
ebalicki@beaconny.gov

Site Plans

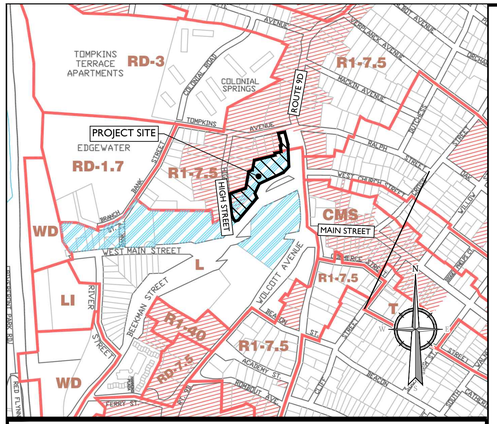
PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS: 5955-19-706012, 5954-26-689990, 5954-26-781983

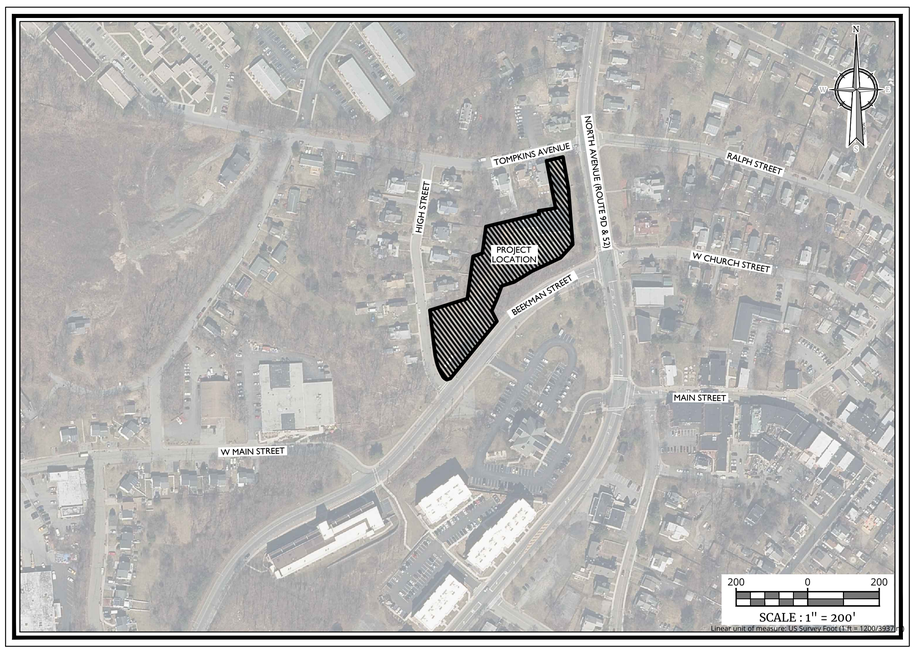
CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE



ZONING MAP

SCALE: 1" =500'

SOURCE: CITY OF BEACON ZONING MAP



LOCATION MAP

SOURCE: NEW YORK STATE G.I.S. CLEARINGHOUSE

INDEX OF SHEETS

SHT. No.	DESCRIPTION	LATEST REVISION
1	COVER SHEET	
2	EXISTING CONDITIONS & SITE DEMOLITION PLAN	
3	DIMENSION PLAN	
4-6	GRADING PLANS	
7-8	UTILITY PLANS	
9	SOIL EROSION & SEDIMENT CONTROL PLAN	
10	SOIL EROSION & SEDIMENT CONTROL DETAILS	
11	LANDSCAPE PLAN	
12	LIGHTING PLAN	
13-18	CONSTRUCTION DETAILS	

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY MAPS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

GENERAL INFORMATION

1. THE SUBJECT PROPERTIES ARE KNOWN BY THE FOLLOWING TAX IDS: 5955-19-706012, 5954-26-689990, 5954-26-781983 AS SHOWN ON THE DUTCHESS COUNTY TAX MAP OF THE CITY OF BEACON, DUTCHESS COUNTY, NEW YORK, TAX YEAR 2023.
2. THE PROPERTY IS LOCATED IN THE L (LINKAGE) ZONING DISTRICT AND IN THE R1-7.5 (RESIDENTIAL) CONTAINS A TOTAL TRACT AREA OF 1.79 ACRES.

OWNER/APPLICANT: BEEKMAN ARTS CENTER LLC (TAX ID: 5955-19-706012)
268 MAIN STREET
BEACON, NY 12508

BAY RIDGE STUDIOS LLC (TAX ID: 5954-26-781983 & 5954-26-689990)
268 MAIN STREET
BEACON, NY 12508

3. BOUNDARY AND TOPOGRAPHICAL MAPPING IS TAKEN FROM A SURVEY TITLED "BOUNDARY SURVEY OF THE LANDS OF BEEKMAN ARTS CENTER, LLC & BAYRIDGE STUDIOS, LLC" PREPARED BY JONATHAN N. MILLEN NY, P.L.S. (LICENSE NO. 050746) OF AUTOMATED CONSTRUCTION ENHANCED SOLUTIONS, INC., DATED NOVEMBER 03, 2023.
4. THIS SET OF PLANS IS NOT DEPICTING ENVIRONMENTAL CONDITIONS OR A CERTIFICATION/WARRANTY REGARDING THE PRESENCE OR ABSENCE OF ENVIRONMENTALLY IMPACTED SITE CONDITIONS. COLLIERS ENGINEERING & DESIGN HAS PERFORMED NO EXPLORATORY OR TESTING SERVICES, INTERPRETATIONS, CONCLUSIONS OR OTHER SITE ENVIRONMENTAL SERVICES RELATED TO THE DETERMINATION OF THE POTENTIAL FOR CHEMICAL, TOXIC, RADIOACTIVE OR OTHER TYPE OF CONTAMINANTS AFFECTING THE PROPERTY AND THE UNDERSIGNED PROFESSIONAL IS NOT QUALIFIED TO DETERMINE THE EXISTENCE OF SAME. SHOULD ENVIRONMENTAL CONTAMINATION OR WASTE BE DISCOVERED, THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LAWS AND REGULATIONS.
5. THIS IS A SITE DEVELOPMENT PLAN AND UNLESS SPECIFICALLY NOTED ELSEWHERE HERON, IS NOT A SURVEY.
6. NO 100 YEAR FLOOD PLAINS ARE KNOW TO EXIST ON THE SITE PER THE FLOOD INSURANCE RATE MAP 36027C0463E DATED 05/02/2012, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
7. DO NOT SCALE DRAWINGS AS THEY PERTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
8. THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL APPROVALS REQUIRED HAVE BEEN OBTAINED, ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED AND THE DRAWINGS HAVE BEEN STAMPED "ISSUED FOR CONSTRUCTION". THIS SHALL INCLUDE APPROVAL OF ALL CATALOG CUTS, SHOP DRAWINGS AND/OR DESIGN CALCULATIONS AS REQUIRED BY THE PROJECT OWNER AND/OR MUNICIPAL ENGINEER.
9. THE CONTRACTOR IS RESPONSIBLE FOR PROJECT SAFETY, INCLUDING PROVISION OF ALL APPROPRIATE SAFETY DEVICES AND TRAINING REQUIRED.
10. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CALL 811 TO REQUEST A UTILITY MARKOUT.
11. INFORMATION HEREON INCORPORATES THE CONTENT IN THE FOLLOWING REPORTS:
    - "PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN (PRELIMINARY SWPPP)" PREPARED FOR BEEKMAN ARTS CENTER LLC & BAYRIDGE STUDIOS LLC PREPARED BY COLLIERS ENGINEERING & DESIGN, DATED JANUARY 30, 2024.

SITE NOTES

1. BUILDING FOOTPRINT DIMENSIONS SHOWN HEREON ARE APPROXIMATE. FINAL BUILDING FOOTPRINT DIMENSIONS FOR EACH BUILDING SHALL BE FURNISHED ON THE INDIVIDUAL ARCHITECTURAL PLANS AT THE TIME OF APPLICATION FOR A BUILDING PERMIT. ALL STRUCTURES SHALL CONFORM TO THE APPROVED BULK ZONING REQUIREMENTS.
2. CURBS SHALL BE DEPRESSED FLUSH WITH PAVEMENT, AND ACCESSIBLE RAMPS INSTALLED WHERE SIDEWALKS AND CROSSWALKS INTERSECT SAME. DETECTABLE WARNINGS SHALL BE INCLUDED ON ACCESSIBLE RAMPS.
3. TRAFFIC SIGNAGE AND STRIPING SHALL CORRESPOND TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
4. REFUSE AND RECYCLABLES SHALL BE STORED WITHIN OUTSIDE SCREENED TRASH ENCLOSURES AS NOTED ON THE PLANS, AND PICKED UP BY PRIVATE WASTE DISPOSAL HAULER.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL WASTE MATERIALS IN ACCORDANCE WITH GOVERNING REGULATIONS AND AGENCIES.
6. THERE SHALL BE NO ON-SITE BURIAL OF CONSTRUCTION MATERIALS, TREE BRANCHES, STUMPS, OR OTHER DELETERIOUS MATERIALS.
7. MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR THE SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:
   A. NEW YORK STATE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", 2018; AS SUPPLEMENTED.
   B. CURRENT PREVAILING MUNICIPAL, COUNTY, AND/OR STATE AGENCY SPECIFICATIONS, STANDARDS, CONDITIONS, AND REQUIREMENTS.
   C. CURRENT PREVAILING UTILITY COMPANY/AUTHORITY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
   D. CURRENT MANUFACTURER SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.

UTILITY NOTES

1. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTIONS, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIALS, AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS. THE CONTRACTOR SHALL NOTIFY THE UNDER SIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON. SUCH CONDITIONS COULD RENDER THE DESIGNS HEREON INAPPROPRIATE OR INEFFECTIVE.
2. UTILITY RELOCATIONS SHOWN HEREON, IF ANY, ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT ALL REQUIRED UTILITY RELOCATIONS. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING AND/OR COORDINATING ALL REQUIRED UTILITY RELOCATIONS IN COOPERATION WITH THE RESPECTIVE UTILITY COMPANY/AUTHORITIES.
3. STORM SEWERS SHALL BE CLASS III (OR HIGHER IF NOTED) REINFORCED CONCRETE PIPE (RCP) WITH "O" RING GASKETS OR INTERNALLY PRELUBRICATED GASKET (TYLOX SUPERSEAL OR EQUIVALENT, ADS N-12 HIGH DENSITY POLYETHYLENE PIPE (HDPE), AS NOTED ON THE PLAN, OR APPROVED EQUAL. PROPER PIPE COVERAGE SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION. PIPE LENGTHS SHOWN HEREON ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
4. WATER SERVICE SHALL BE PROVIDED FROM THE CITY OF BEACON. THE PROJECT SHALL CONNECT TO THE MUNICIPAL SYSTEM VIA THE EXISTING WATER MAINS IN TOMPKINS AVENUE AND HIGH STREET SUBJECT TO THE APPLICABLE REGULATIONS AND THE APPROVAL OF THE MUNICIPALITY & THE DUTCHESS COUNTY DEPARTMENT OF HEALTH.
5. SANITARY SEWER SERVICE SHALL BE PROVIDED BY CONNECTION TO THE EXISTING CITY OF BEACON SANITARY MAIN LOCATED IN HIGH STREET.
6. ALL WATER MAINS SHOULD BE SEPARATED FROM SANITARY SEWER LINES BY A MINIMUM HORIZONTAL DISTANCE OF 10 FEET. IF SUCH HORIZONTAL SEPARATION IS NOT POSSIBLE, THE WATER AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (STEP TRENCHES ARE PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN ENCASED IN CONCRETE OR WITH SUCH SEPARATION EXPRESSLY APPROVED BY THE MUNICIPALITY.
7. AT THE CROSSINGS OF SEWER LINES AND WATER MAINS, THE TOP OF THE SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN (SEWER SERVICE LATERALS ARE NOT SUBJECT TO THIS REQUIREMENT). IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE WATER LINE SHALL BE ENCASED IN CONCRETE.
8. GAS, ELECTRIC, LIGHTING, CABLE TELEVISION, AND ELECTRICAL SERVICE PLANS, IF REQUIRED, SHALL BE PREPARED BY THE RESPECTIVE UTILITY COMPANIES THAT SERVICE THE AREA PRIOR TO SITE CONSTRUCTION AND SHALL BE INSTALLED PER ORDINANCE OR LOCAL UTILITY COMPANIES REQUIREMENTS.
9. ALL UTILITY CONNECTION LOCATIONS MUST BE CONFIRMED WITH THE GOVERNING AUTHORITY & WITH A TEST PIT BY THE CONTRACTOR PRIOR TO INSTALLATION.
10. UTILITY INSTALLATION WITHIN THE NYSDOT RIGHT-OF-WAY TO BE COORDINATED WITH THE APPLICABLE NYSDOT PERMIT PLANS.

THESE GENERAL NOTES SHALL APPLY TO ALL SHEETS IN THIS SET.

Colliers Engineering & Design

www.colliersengineering.com

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Doing Business as MASER CONSULTING

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION

REGISTERED LANDSCAPE ARCHITECT JUSTIN E. DATES 001964 STATE OF NEW YORK

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER:	DRAWING NAME:
23010468A	C-CVER

SHEET TITLE: COVER SHEET

SHEET NUMBER: 01 of 18

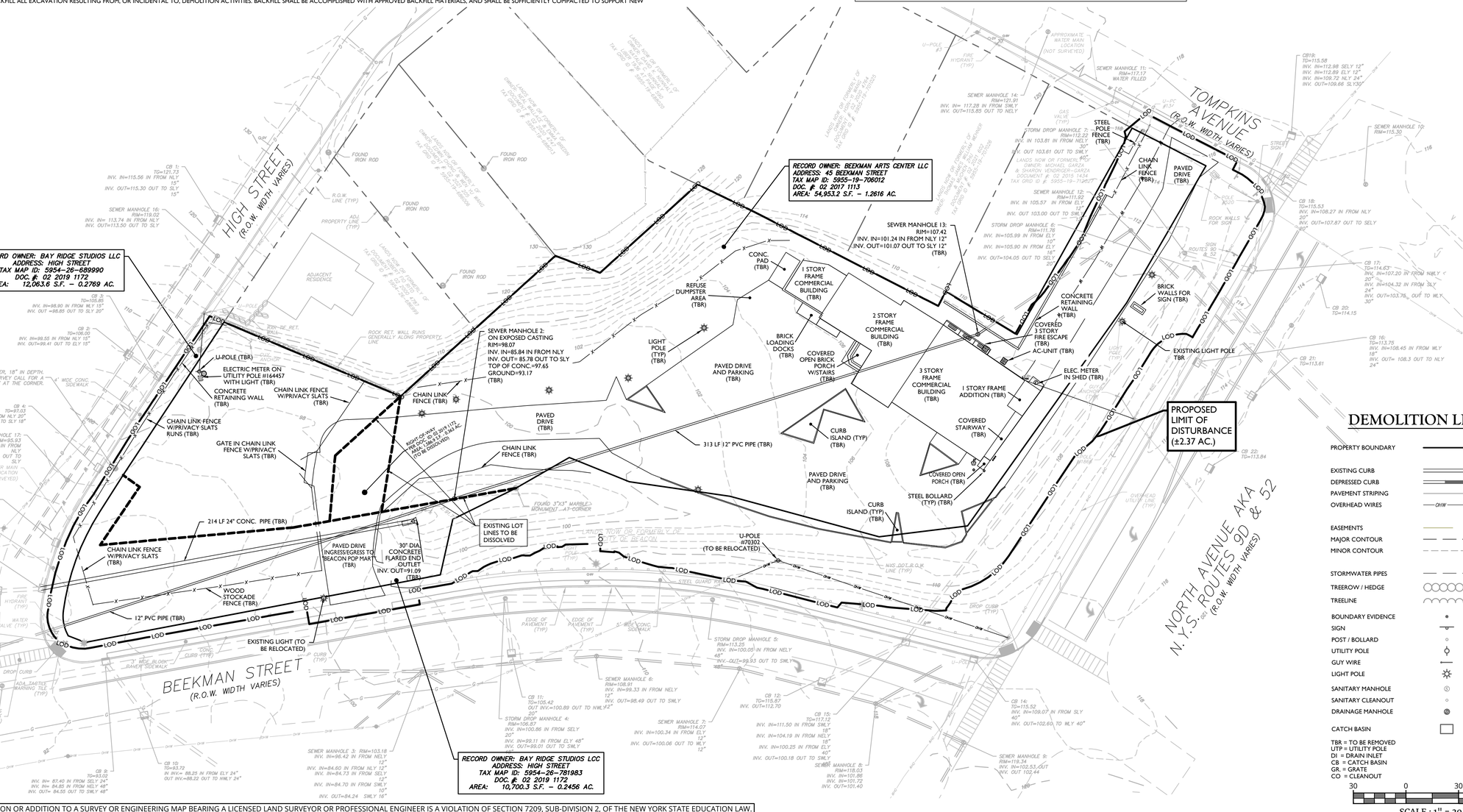
By: KYLE SHALLOW
2023\23010468A\Engineering\Site Plans\C-CVER.dwg|C-01 COVER

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

DEMOLITION NOTES:

1. THIS PLAN REFERENCES THE FOLLOWING DOCUMENTS AND INFORMATION:
   A. BOUNDARY AND TOPOGRAPHICAL MAPPING IS TAKEN FROM A SURVEY TITLED "BOUNDARY SURVEY OF THE LANDS OF BEEKMAN ARTS CENTER, LLC & BAYRIDGE STUDIOS, LLC" PREPARED BY JONATHAN N. MILLEN NY, P.L.S. (LICENSE NO. 050746) OF AUTOMATED CONSTRUCTION ENHANCED SOLUTIONS, INC., DATED NOVEMBER 03, 2023.
2. CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (29 U.S.C. 651 ET SEQ.) AND THE NEW YORK PROTECTION OF UNDERGROUND FACILITIES ACT (DIG SAFE LAW, 16 NYCRR PART 753) AS AMENDED.
3. THE DEMOLITION PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING ITEMS TO BE DEMOLISHED AND/OR REMOVED. THE CONTRACTOR SHALL ALSO REVIEW THE OTHER SITE PLAN DRAWINGS AND INCLUDE IN DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS.
4. ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS OR SPECIFICATIONS, CONCERNS REGARDING THE APPLICABLE SAFETY STANDARDS OR THE SAFETY OF THE CONTRACTOR OR THIRD PARTIES IN PERFORMING THE WORK OF THIS PROJECT SHALL BE RAISED WITH ENGINEER, IN WRITING AND RESPONDED TO BY ENGINEER, IN WRITING, PRIOR TO THE INITIATION OF ANY SITE ACTIVITY.
5. PRIOR TO STARTING ANY DEMOLITION, CONTRACTOR IS RESPONSIBLE FOR/TO:
   A. OBTAINING ALL REQUIRED PERMITS AND MAINTAINING THE SAME ON SITE FOR REVIEW BY THE ENGINEER AND OTHER PUBLIC AGENCIES HAVING JURISDICTION.
   B. NOTIFYING, AT A MINIMUM, THE MUNICIPAL ENGINEER, DESIGN ENGINEER, AND LOCAL DEPARTMENT OF PUBLIC WORKS, 72 HOURS PRIOR TO START OF WORK.
   C. INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE.
   D. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR SHALL BE REQUIRED TO CALL THE BOARD OF PUBLIC UTILITIES ONE CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARK OUT IN ADVANCE OF ANY EXCAVATION.
   E. LOCATING AND PROTECTING ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN AND ADJACENT TO THE LIMITS OF PROJECT ACTIVITIES. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES.
   F. PROTECTING AND MAINTAINING IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.
   G. ARRANGING FOR AND COORDINATING WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) FOR THE TEMPORARY OR PERMANENT TERMINATION OF SERVICE REQUIRED BY THE PROJECT PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE THE UTILITY ENGINEER AND OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTIONAL AND UTILITY COMPANY REQUIREMENTS.
   H. COORDINATION WITH UTILITY COMPANIES REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES. WORK REQUIRED TO BE DONE "OFF-PEAK" SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
   I. IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATERIAL, THE REMOVAL OF WHICH IS NOT ADDRESSED IN THE PROJECT PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL IMMEDIATELY CEASE ALL WORK AND NOTIFY THE OWNER AND ENGINEER OF THE DISCOVERY OF SUCH MATERIALS.
6. COLLIERS ENGINEERING & DESIGN IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR IS TO PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL THE OSHA REQUIREMENTS TO ENSURE PUBLIC AND CONTRACTOR SAFETY.
7. THE CONTRACTOR SHALL PROVIDE ALL THE "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN. ALL REPAIRS SHALL USE NEW MATERIAL. THE REPAIRS SHALL RESTORE THE ITEM TO THE PRE-DEMOLITION CONDITION. SUCH REPAIRS SHALL BE PERFORMED AT THE CONTRACTOR'S SOLE EXPENSE.
8. THE CONTRACTOR SHALL NOT PERFORM ANY EARTH MOVEMENT ACTIVITIES, DEMOLITION OR REMOVAL OF FOUNDATION WALLS, FOOTINGS, OR OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE UNLESS IT IS IN STRICT ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, AND/OR UNDER THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
9. CONTRACTOR SHALL BACKFILL ALL EXCAVATION RESULTING FROM, OR INCIDENTAL TO, DEMOLITION ACTIVITIES. BACKFILL SHALL BE ACCOMPLISHED WITH APPROVED BACKFILL MATERIALS, AND SHALL BE SUFFICIENTLY COMPACTED TO SUPPORT NEW IMPROVEMENTS AND IN COMPLIANCE WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT. BACKFILLING SHALL OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES, AND SHALL BE DONE SO AS TO PREVENT WATER ENTERING THE EXCAVATION. FINISHED SURFACES SHALL BE GRADED TO PROMOTE POSITIVE DRAINAGE.
10. EXPLOSIVES SHALL NOT BE USED WITHOUT PRIOR WRITTEN CONSENT OF BOTH THE OWNER AND ALL APPLICABLE GOVERNMENTAL AUTHORITIES. ALL THE REQUIRED PERMITS AND EXPLOSIVE CONTROL MEASURES THAT ARE REQUIRED BY THE FEDERAL, STATE AND LOCAL GOVERNMENTS SHALL BE IN PLACE PRIOR TO STARTING AN EXPLOSIVE PROGRAM. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES.
11. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FHWA "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AS WELL AS FEDERAL, STATE AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS OR ROADWAY RIGHT-OF-WAY.
12. CONTRACTOR SHALL CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.
13. DEMOLITION ACTIVITIES AND EQUIPMENT SHALL NOT USE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE AND/OR LIMIT OF DISTURBANCE, WITHOUT WRITTEN PERMISSION OF THE OWNER AND ALL GOVERNMENTAL AGENCIES HAVING JURISDICTION.
14. THE CONTRACTOR SHALL USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, ADJACENT STRUCTURES AND IMPROVEMENTS SHALL BE CLEANED OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.
15. CONTRACTOR IS RESPONSIBLE TO SAFEGUARD SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.
16. CONTRACTOR IS RESPONSIBLE FOR SITE JOB SAFETY, WHICH SHALL INCLUDE BUT NOT LIMITED TO THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING AND OTHER APPROPRIATE SAFETY ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION ACTIVITY.
17. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION AS TO THE MEANS AND METHODS TO BE USED TO ACCOMPLISH THAT WORK. ALL MEANS AND METHODS UTILIZED ARE TO BE IN STRICT ACCORDANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.
18. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES. THE CONTRACTOR SHALL MAINTAIN RECORDS TO DEMONSTRATE PROPER DISPOSAL ACTIVITIES, TO BE PROVIDED TO THE OWNER UPON REQUEST.
19. CONTRACTOR SHALL MAINTAIN A RECORD SET OF PLANS UPON WHICH IS INDICATED THE LOCATION OF EXISTING UTILITIES THAT ARE CAPPED, ABANDONED IN PLACE, OR RELOCATED DUE TO DEMOLITION ACTIVITIES. THIS RECORD DOCUMENT SHALL BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER, AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK.
20. CONTRACTOR IS RESPONSIBLE FOR TAKING THE APPROPRIATE MEASURES TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS, PAVEMENT, DRAINAGE STRUCTURES, ETC. WHICH ARE TO REMAIN. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRING DAMAGE DONE TO THE AFOREMENTIONED ITEMS. THE REPAIR SHALL RESTORE SUCH TO A CONDITION EQUIVALENT TO OR BETTER THAN THE EXISTING CONDITIONS AND IN ACCORDANCE WITH ALL APPLICABLE CODES.
21. TREE CLEARING AND REMOVAL SHALL OCCUR BETWEEN OCTOBER 1ST TO MARCH 31ST, TO MITIGATE POTENTIAL IMPACTS TO THE INDIANA BAT.

SUBSURFACE UTILITY INFORMATION AND ROUTING IS INCOMPLETE AND IS UNDER INVESTIGATION BY THE PROJECT SURVEYOR



DEMOLITION LEGEND

- PROPERTY BOUNDARY
- EXISTING CURB
- DEPRESSED CURB
- PAVEMENT STRIPING
- OVERHEAD WIRES — OHW
- EASEMENTS
- MAJOR CONTOUR
- MINOR CONTOUR
- STORMWATER PIPES
- TREEROW / HEDGE
- TREELINE
- BOUNDARY EVIDENCE
- SIGN
- POST / BOLLARD
- UTILITY POLE
- GUY WIRE
- LIGHT POLE
- SANITARY MANHOLE
- SANITARY CLEANOUT
- DRAINAGE MANHOLE
- CATCH BASIN

TBR = TO BE REMOVED
UTP = UTILITY POLE
DI = DRAIN INLET
CB = CATCH BASIN
GR. = GRATE
CO = CLEANOUT

30 0 30 60
SCALE : 1" = 30'
SELECT LINEAR UNIT OF MEASURE

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY MAPS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

2023\23011468A\Engineering\Site Plans\C-DEMO.dwg|C-02 DEMOLITION By: KYLE SHALLOW

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FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION

JUSTIN E. DATES — 001964 — STATE OF NEW YORK — REGISTERED LANDSCAPE ARCHITECT

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM
PROJECT NUMBER:	DRAWING NAME:		
23010468A	C-DEMO		

SHEET TITLE:
EXISTING CONDITIONS & SITE DEMOLITION PLAN

SHEET NUMBER:
02 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

ZONING DISTRICT:

L: (LINKAGE DISTRICT)
USE PERMITTED BY RIGHT: RETAIL
USE PERMITTED BY RIGHT: OFFICE
USE PERMITTED BY RIGHT: MULTIFAMILY DWELLING
-IF THE BUILDING FACES THE NORTH SIDE OF BEEKMAN STREET BETWEEN ROUTE 9D AND WEST MAIN STREET
-SUBJECT TO A REQUIREMENT THAT ANY DWELLING UNIT SHALL ONLY BE LOCATED ON THE UPPER STORIES OR AT LEAST 50 FEET BEHIND THE FACADE IN THE REAR PORTION OF THE GROUND FLOOR

HDLO: (HISTORIC DISTRICT AND LANDMARK OVERLAY ZONE)

TABLE OF BULK REQUIREMENTS

L - LINKAGE DISTRICT

MINIMUM	REQUIRED	PROVIDED	REMARKS
LANDSCAPED AREA	15%	23.0%	OK
LOT AREA	N/A	N/A	OK
LOT AREA PER UNIT	N/A	N/A	OK
LOT WIDTH	N/A	N/A	OK
LOT DEPTH	75 FT.	106 FT.	OK
FRONT YARD SETBACK	0 FT.	1 FT.	OK
SIDE YARD SETBACK	0 FT.	1 FT.	OK
REAR YARD SETBACK	25 FT.	48 FT.	OK
DISTANCE BETWEEN BUILDINGS SAME LOT	N/A	N/A	OK
MAXIMUM			
BUILDING HEIGHT	4 STORIES AND 48 FT.	4 STORIES AND ≤48 FT.	OK
BUILDING COVERAGE	N/A	N/A	OK
UNITS PER BUILDING	N/A	N/A	OK
FRONT YARD SETBACK	20 FT.	17.9 FT.	OK
SIDE YARD SETBACK	30 FT.	N/A	OK

ZONING DISTRICT:

R1-7.5: (ONE FAMILY RESIDENTIAL DISTRICT (7,500 SF/DWELLING))
NO USE PROPOSED IN R1-7.5 DISTRICT

TABLE OF BULK REQUIREMENTS

R1-7.5 - ONE FAMILY RESIDENTIAL DISTRICT

MINIMUM	REQUIRED	PROVIDED	REMARKS
LANDSCAPED AREA	15%	NO STRUCTURE PROPOSED IN R1-7.5 DISTRICT	OK
LOT AREA	7,500 SF		OK
LOT AREA PER UNIT	7,500 SF		OK
LOT WIDTH	75 FT.		OK
LOT DEPTH	100 FT.		OK
FRONT YARD SETBACK	15 FT.		OK
SIDE YARD SETBACK	10 FT.		OK
REAR YARD SETBACK	25 FT.		OK
DISTANCE BETWEEN BUILDINGS SAME LOT	N/A		OK
WELL-DESIGNED AND LANDSCAPED RECREATION OR USABLE OPEN SPACE AREA IN REAR YARD	100 SF PER DWELLING UNIT		OK
MAXIMUM			
BUILDING HEIGHT	2.5 STORIES AND 35 FT.		OK
BUILDING COVERAGE	30%		OK
UNITS PER BUILDING	N/A		OK
FRONT YARD SETBACK	35 FT.		OK
SIDE YARD SETBACK	N/A		OK

PARKING REQUIREMENTS:

REQUIRED

RESIDENTIAL:
1 SPACE PER UNIT
64 DWELLING UNITS = 64 SPACES

RETAIL:
3 SPACES PER 1,000 SF OF GFA
12,600 SF OF RETAIL SPACE = 38 SPACES

TOTAL PARKING REQUIRED = 102 SPACES

PROVIDED

TOTAL PARKING PROVIDED = 83 SPACES
(BASED ON SHARED PARKING ANALYSIS PROVIDED IN THE T.I.S., PREPARED BY COLLIERS ENGINEERING & DESIGN, WHICH ACCOUNTS FOR ALL RETAIL USES IN THE COMMERCIAL SPACE.)

LOADING REQUIREMENTS:

REQUIRED

RETAIL:
1 SPACE FOR THE FIRST 7,500 SF OF GFA AND 1 SPACE FOR EACH ADDITIONAL 10,000 SF OF GFA OR MAJOR PORTION THEREOF, EXCEPT THAT NO BERTHS SHALL BE REQUIRED FOR BUILDINGS OF LESS THAN 5,000 SQUARE FEET OF GFA

BUILDING 1: 8,670 SF OF RETAIL SPACE = 1 LOADING SPACE
BUILDING 2: 3,930 SF OF RETAIL SPACE = 0 LOADING SPACES

PROVIDED

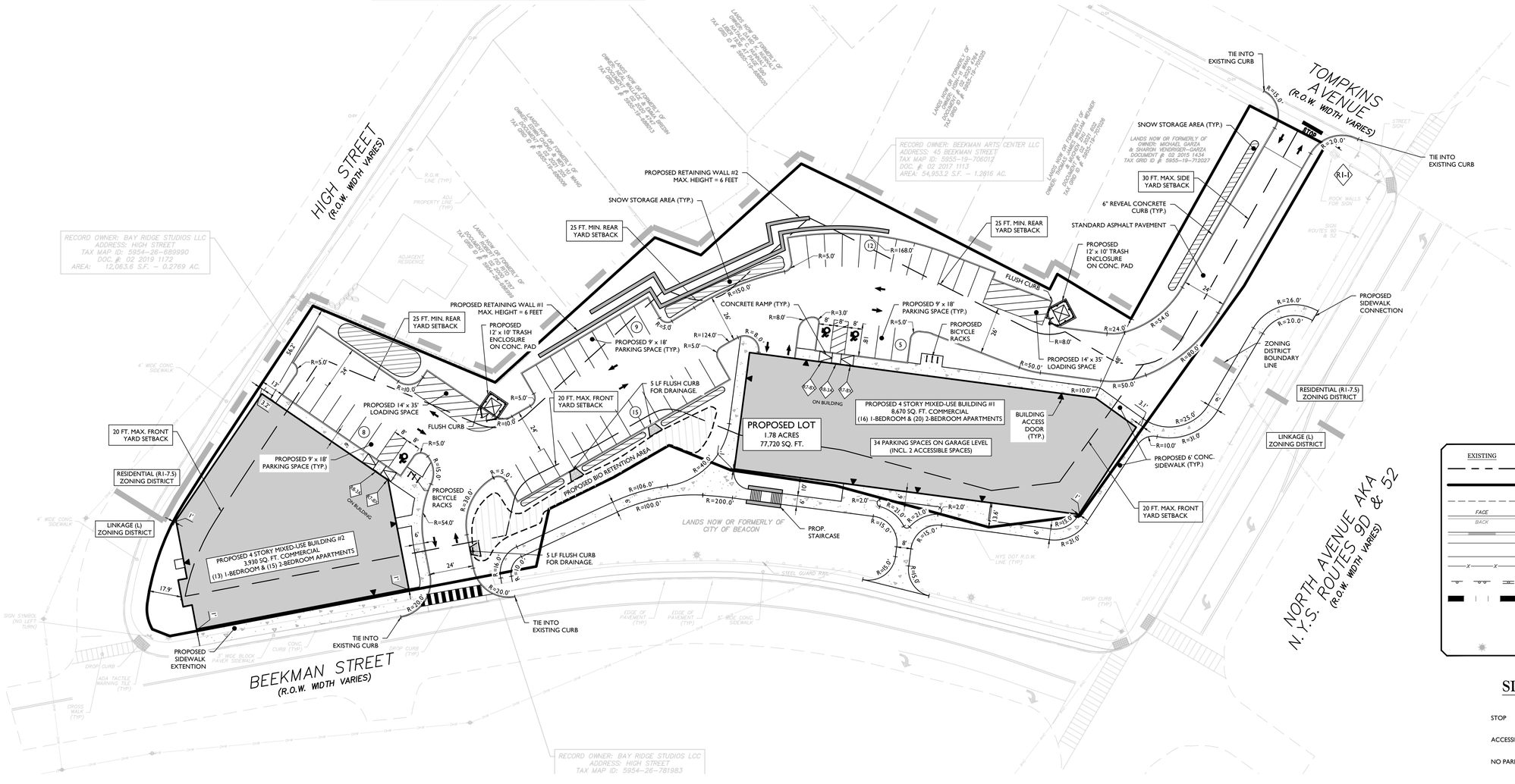
TOTAL LOADING SPACES PROVIDED:
EAST BLDG: = 1 LOADING SPACE
WEST BLDG: = 1 LOADING SPACE

TAX LOTS:

5955-19-706012
AREA = 1.26 ACRES
54,953 S.F.

5954-26-781983
AREA = 0.25 ACRES
10,700 S.F.

5954-26-689990
AREA = 0.28 ACRES
12,064 S.F.



LEGEND

EXISTING		PROPOSED
	RIGHT OF WAY LINE	
	PROPERTY LINE	
	EDGE OF PAVEMENT	
FACE / BACK	CURB	FACE / BACK
	DEPRESSED CURB	
	SIDEWALK	
X X	FENCES	X X
	ROADWAY SIGNS	
	ZONING BOUNDARY LINE	
	STALL COUNT	(10)
	ADA ACCESSIBLE STALL	
	LIGHT POLE	

SIGN LEGEND:

STOP — R1-1
ACCESSIBLE PARKING — R7-8X
NO PARKING — R8-3A

30 0 30 60
SCALE : 1" = 30'
SELECT LINEAR UNIT OF MEASURE

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2023\23010468A\Engineering\Site Plans\C-LAYT.dwg|C-03 DIMENSION PLAN By: KYLE.SHALLOW

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REV	DATE	DRAWN BY	DESCRIPTION

REGISTERED LANDSCAPE ARCHITECT JUSTIN E. DATES 001964 STATE OF NEW YORK
Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-LAYT

SHEET TITLE: DIMENSION PLAN

SHEET NUMBER: 03 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

GRADING NOTES:

1. PROPOSED GRADE ELEVATIONS SHOWN AT BUILDING LINE ARE GROUND ELEVATIONS.
2. PROPOSED SPOT ELEVATIONS IN PAVEMENT AREAS ARE TOP OF FINISHED PAVEMENT.
3. PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING FOUNDATION.
4. LANDSCAPED AND LAWN AREAS THAT ARE COMPACTED DURING CONSTRUCTION SHALL BE RESTORED PER THE NYS DEC DEEP-RIPPING AND DECOMPACTION MANUAL. (SEE SWPPP APPENDIX 12)

ADA INSTRUCTIONS TO CONTRACTOR:

1. CONTRACTOR SHALL EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ADA ACCESSIBLE COMPONENTS FOR THE SITE. THESE COMPONENTS, AS CONSTRUCTED, MUST COMPLY WITH THE LATEST ADA STANDARDS FOR ACCESSIBLE DESIGN. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING SPACE, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, INTER-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EGRESS, SHALL COMPLY WITH THESE ADA CODE REQUIREMENTS. THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

   (NOTE: THIS LIST IS NOT INTENDED TO CAPTURE EVERY APPLICABLE FEDERAL, STATE AND LOCAL RULE AND REGULATION. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE LAW, WHETHER OR NOT STATED SPECIFICALLY HEREIN):

   A. PARKING SPACES AND PARKING AISLES - SLOPE SHALL NOT EXCEED 1:48 (1/4" PER FOOT OR NOMINALLY 2.0%) IN ANY DIRECTION.

   B. CURB RAMPS- SLOPES SHALL NOT EXCEED 1:12 (8.3%).

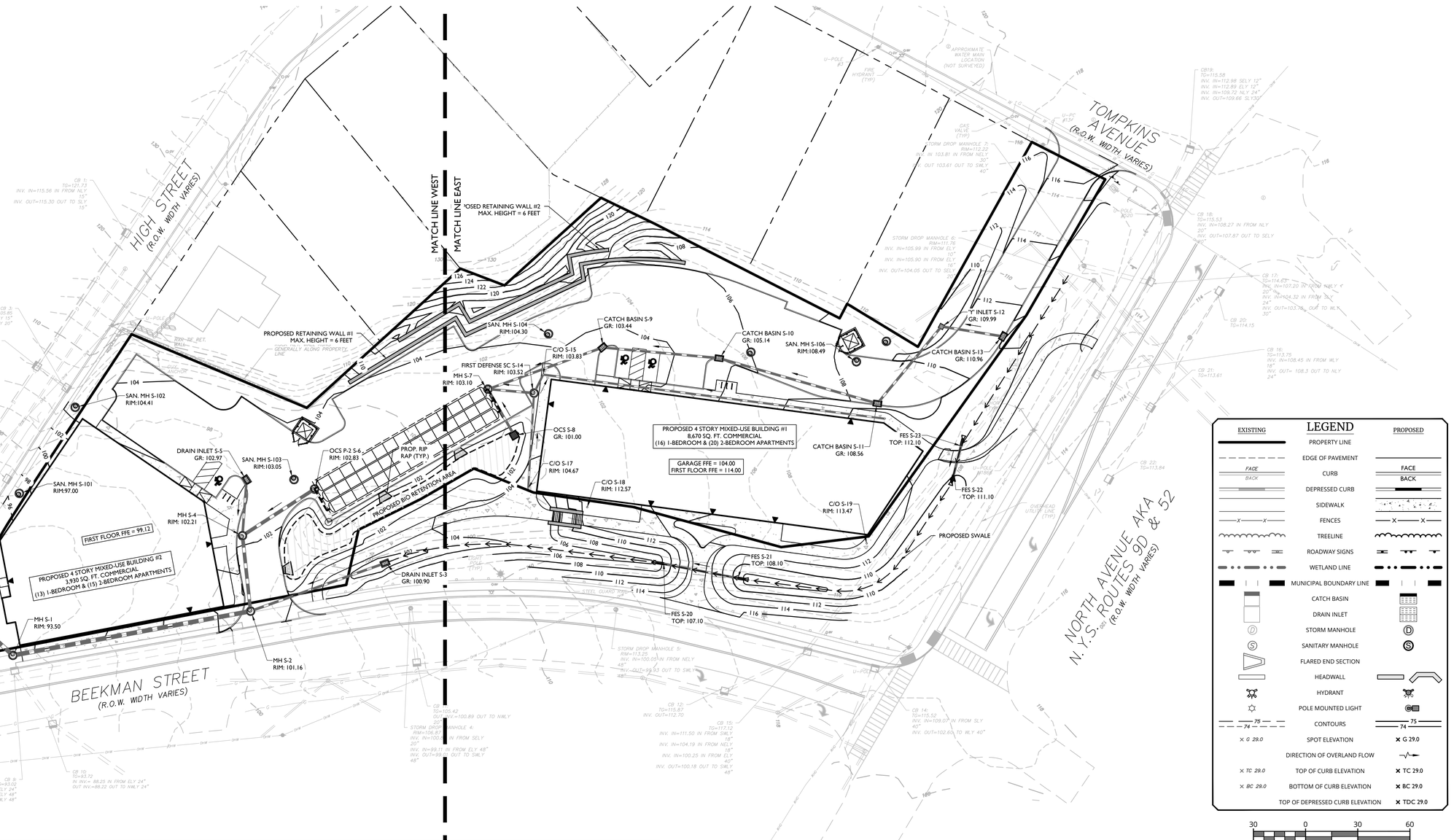
   C. LANDINGS -SHALL BE PROVIDED AT EACH END OF RAMPS, SHALL PROVIDE POSITIVE DRAINAGE, AND SHALL NOT EXCEED 1:48 (1/4" PER FOOT OR NOMINALLY 2.0%) IN ANY DIRECTION.

   D. PATH OF TRAVEL ALONG ACCESSIBLE ROUTE - SHALL PROVIDE A 36 INCH OR GREATER UNOBSTRUCTED WIDTH OF TRAVEL. (CAR OVERHANGS CANNOT REDUCE THIS MINIMUM WIDTH), THE SLOPE SHALL BE NO GREATER THAN 1 :20 (5.0%) IN THE DIRECTION OF TRAVEL, AND SHALL NOT EXCEED 1:48 (1/4" PER FOOT OR NOMINALLY 2.0%) IN CROSS SLOPE.

   E. WHERE PATH OF TRAVEL WILL BE GREATER THAN 1:20 (5.0%), AN ADA RAMP WITH A MAXIMUM SLOPE OF 1:12 (8.3%), FOR A MAXIMUM DISTANCE OF 30 FEET, SHALL BE PROVIDED. THE RAMP SHALL HAVE ADA HAND RAILS AND "LEVEL" LANDINGS ON EACH END THAT ARE SLOPED NO MORE THAN 1:48 (1/4" PER FOOT OR NOMINALLY 2.0%) FOR POSITIVE DRAINAGE.

   F. DOORWAYS - SHALL HAVE A "LEVEL" LANDING AREA ON THE EXTERIOR SIDE OF THE DOOR THAT IS SLOPED NO MORE THAN 1:48 (1/4" PER FOOT OR NORMALLY 2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA SHALL BE NO LESS THAN 60 INCHES (5 FEET) LONG, EXCEPT WHERE OTHER WISE PERMITTED BY ADA STANDARDS FOR ALTERNATIVE DOORWAY OPENING CONDITIONS (SEE APPLICABLE CODE SECTIONS).

2. IT IS RECOMMENDED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION WITH THE LOCAL BUILDING CODE OFFICIAL PRIOR TO COMMENCING WORK.



LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	EDGE OF PAVEMENT	
FACE / BACK	CURB	FACE / BACK
	DEPRESSED CURB	
	SIDEWALK	
x x	FENCES	x x
	TREELINE	
	ROADWAY SIGNS	
	WETLAND LINE	
	MUNICIPAL BOUNDARY LINE	
	CATCH BASIN	
	DRAIN INLET	
P	STORM MANHOLE	D
S	SANITARY MANHOLE	S
	FLARED END SECTION	
	HEADWALL	
	HYDRANT	
	POLE MOUNTED LIGHT	
75 / 74	CONTOURS	75 / 74
× G 29.0	SPOT ELEVATION	× G 29.0
	DIRECTION OF OVERLAND FLOW	
× TC 29.0	TOP OF CURB ELEVATION	× TC 29.0
× BC 29.0	BOTTOM OF CURB ELEVATION	× BC 29.0
	TOP OF DEPRESSED CURB ELEVATION	× TDC 29.0

30 0 30 60

SCALE : 1" = 30'

Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

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FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION

REGISTERED LANDSCAPE ARCHITECT JUSTIN E. DATES 001964 STATE OF NEW YORK

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER:	DRAWING NAME:
23010468A	C-GRAD

SHEET TITLE:

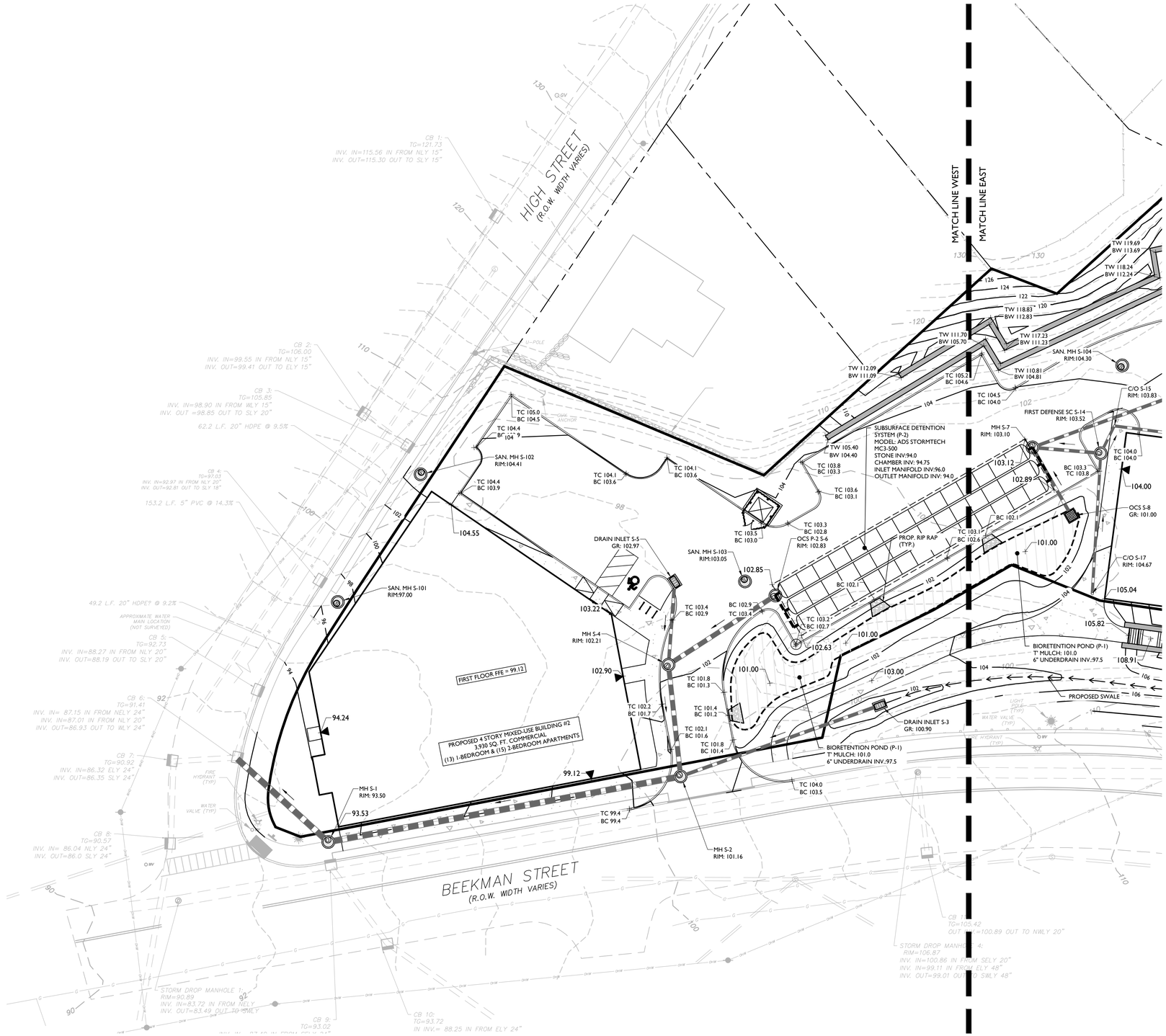
GRADING PLAN (OVERALL)

SHEET NUMBER:

04 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

2023\23010468A\Engineering\Site Plans\C-GRAD.dwg\C-04-GRADING Overall By: KYLE.SHALLOW



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2023\23010468A\Engineering\Site Plans\C-GRAD.dwg\C-05-GRADING A By:KYLE.SHALLOW

LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	EDGE OF PAVEMENT	
FACE / BACK	CURB	FACE / BACK
	DEPRESSED CURB	
	SIDEWALK	
X X	FENCES	X X
	TREELINE	
	ROADWAY SIGNS	
	WETLAND LINE	
	MUNICIPAL BOUNDARY LINE	
	CATCH BASIN	
	DRAIN INLET	
D	STORM MANHOLE	D
S	SANITARY MANHOLE	S
	FLARED END SECTION	
	HEADWALL	
	HYDRANT	
	POLE MOUNTED LIGHT	
75 / 74	CONTOURS	75 / 74
× G 29.0	SPOT ELEVATION	× G 29.0
	DIRECTION OF OVERLAND FLOW	
× TC 29.0	TOP OF CURB ELEVATION	× TC 29.0
× BC 29.0	BOTTOM OF CURB ELEVATION	× BC 29.0
	TOP OF DEPRESSED CURB ELEVATION	× TDC 29.0

20 0 20 40

SCALE : 1" = 20'

Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

N W E S

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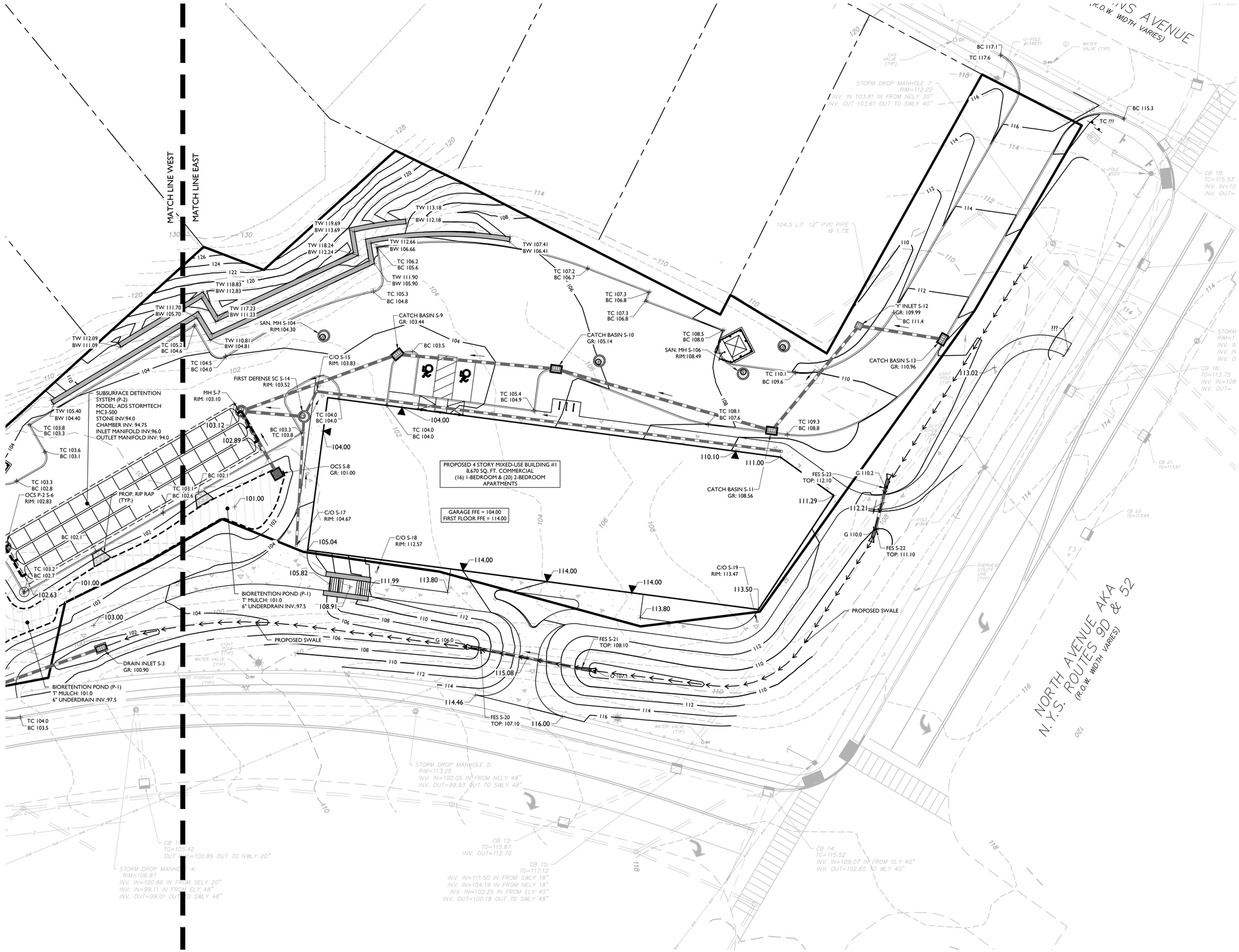
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-GRAD

SHEET TITLE:
GRADING PLAN (WEST)

SHEET NUMBER:
05 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION



LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	EDGE OF PAVEMENT	
FACE / BACK	CURB	FACE / BACK
	DEPRESSED CURB	
	SIDEWALK	
X X	FENCES	X X
	TREELINE	
	ROADWAY SIGNS	
	WETLAND LINE	
	MUNICIPAL BOUNDARY LINE	
	CATCH BASIN	
	DRAIN INLET	
D	STORM MANHOLE	D
S	SANITARY MANHOLE	S
	FLARED END SECTION	
	HEADWALL	
	HYDRANT	
	POLE MOUNTED LIGHT	
75 / 74	CONTOURS	75 / 74
× G 29.0	SPOT ELEVATION	× G 29.0
	DIRECTION OF OVERLAND FLOW	
× TC 29.0	TOP OF CURB ELEVATION	× TC 29.0
× BC 29.0	BOTTOM OF CURB ELEVATION	× BC 29.0
	TOP OF DEPRESSED CURB ELEVATION	× TDC 29.0

20 0 20 40

SCALE : 1" = 20'

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2023\23010468A\Engineering\Site Plans\C-GRAD.dwg|C-06 GRADING By: KYLE SHALLOW

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SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

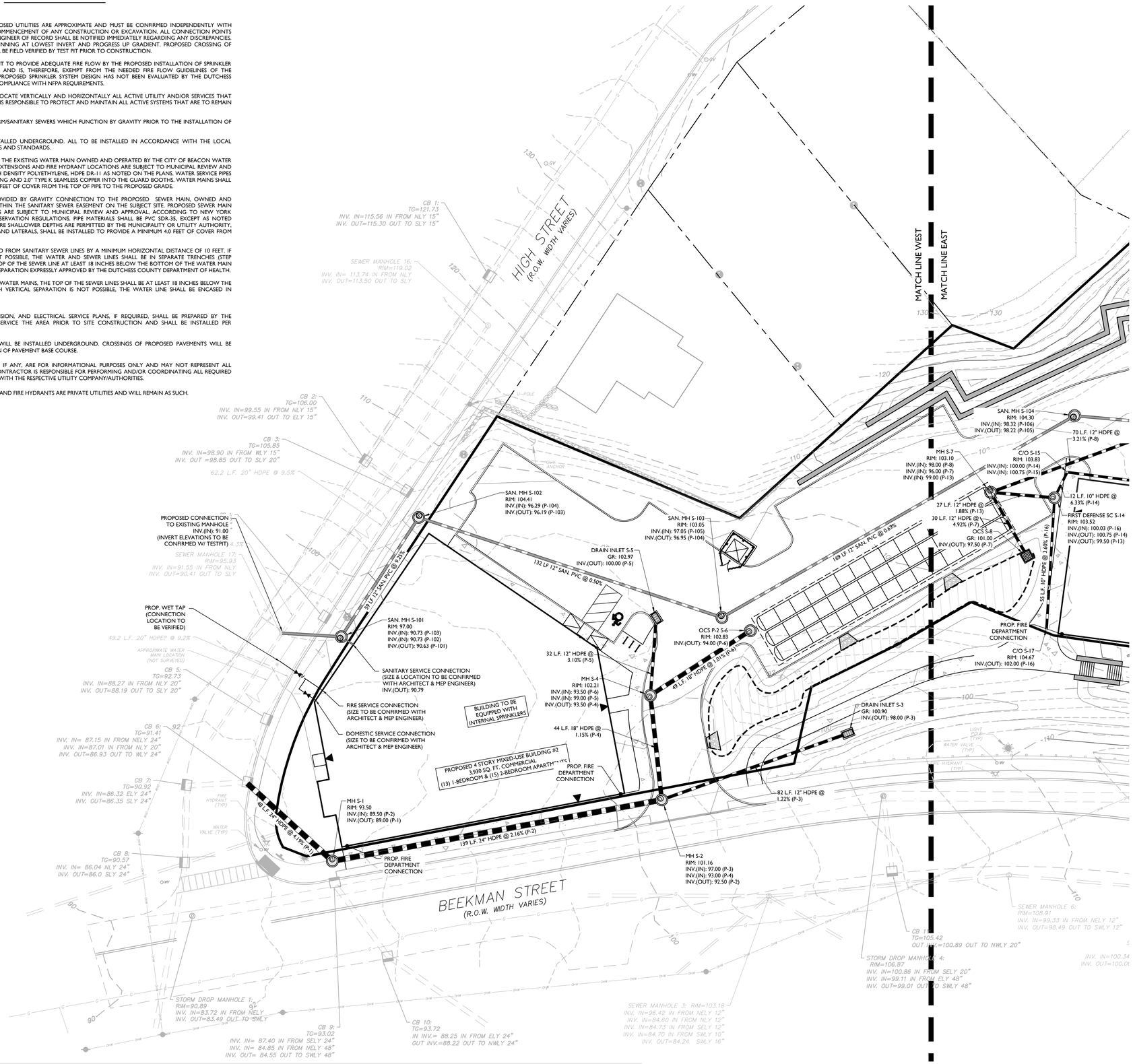
PROJECT NUMBER: 23010468A
DRAWING NAME: C-GRAD

SHEET TITLE: GRADING PLAN (EAST)

SHEET NUMBER: 06 of 18

UTILITY NOTES

1. LOCATION OF ALL EXISTING AND PROPOSED UTILITIES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. ALL CONNECTION POINTS SHALL BE VERIFIED IN FIELD BY GC AND ENGINEER OF RECORD SHALL BE NOTIFIED IMMEDIATELY REGARDING ANY DISCREPANCIES. CONSTRUCTION SHALL COMMENCE BEGINNING AT LOWEST INVERT AND PROGRESS UP GRADIENT. PROPOSED CROSSING OF EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO CONSTRUCTION.
2. THIS PROJECT HAS INDICATED THE INTENT TO PROVIDE ADEQUATE FIRE FLOW BY THE PROPOSED INSTALLATION OF SPRINKLER SYSTEMS MEETING NFPA REQUIREMENTS, AND IS, THEREFORE, EXEMPT FROM THE NEEDED FIRE FLOW GUIDELINES OF THE INSURANCE SERVICES OFFICE (ISO). THE PROPOSED SPRINKLER SYSTEM DESIGN HAS NOT BEEN EVALUATED BY THE DUTCHESS COUNTY DEPARTMENT OF HEALTH FOR COMPLIANCE WITH NFPA REQUIREMENTS.
3. THE CONTRACTOR SHALL DEFINE AND LOCATE VERTICALLY AND HORIZONTALLY ALL ACTIVE UTILITY AND/OR SERVICES THAT ARE TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE SYSTEMS THAT ARE TO REMAIN DURING SITE CONSTRUCTION.
4. THE CONTRACTOR TO INSTALL ALL STORM/SANITARY SEWERS WHICH FUNCTION BY GRAVITY PRIOR TO THE INSTALLATION OF ALL OTHER UTILITIES.
5. ALL NEW UTILITIES/SERVICES TO BE INSTALLED UNDERGROUND. ALL TO BE INSTALLED IN ACCORDANCE WITH THE LOCAL UTILITY/SERVICE PROVIDER SPECIFICATIONS AND STANDARDS.
6. WATER SERVICE IS TO BE PROVIDED FROM THE EXISTING WATER MAIN OWNED AND OPERATED BY THE CITY OF BEACON WATER DEPARTMENT. PROPOSED WATER MAIN EXTENSIONS AND FIRE HYDRANT LOCATIONS ARE SUBJECT TO MUNICIPAL REVIEW AND APPROVAL. PIPE MATERIALS SHALL BE HIGH DENSITY POLYETHYLENE, HDPE DR-11 AS NOTED ON THE PLANS. WATER SERVICE PIPES TO BE 4.0" DIAMETER HDPE TO THE BUILDING AND 2.0" TYPE K SEAMLESS COPPER INTO THE GUARD BOOTHS. WATER MAINS SHALL BE INSTALLED TO PROVIDE A MINIMUM 4.0 FEET OF COVER FROM THE TOP OF PIPE TO THE PROPOSED GRADE.
7. SANITARY SEWER SERVICE SHALL BE PROVIDED BY GRAVITY CONNECTION TO THE PROPOSED SEWER MAIN, OWNED AND OPERATED BY THE CITY OF BEACON, WITHIN THE SANITARY SEWER EASEMENT ON THE SUBJECT SITE. PROPOSED SEWER MAIN EXTENSIONS AND MANHOLE LOCATIONS ARE SUBJECT TO MUNICIPAL REVIEW AND APPROVAL, ACCORDING TO NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION REGULATIONS. PIPE MATERIALS SHALL BE PVC SDR-35, EXCEPT AS NOTED OTHERWISE ON THE PLANS. EXCEPT WHERE SHALLOWER DEPTHS ARE PERMITTED BY THE MUNICIPALITY OR UTILITY AUTHORITY, SEWER LINES, INCLUDING FORCE MAINS AND LATERALS, SHALL BE INSTALLED TO PROVIDE A MINIMUM 4.0 FEET OF COVER FROM THE TOP OF PIPE TO PROPOSED GRADE.
8. ALL WATER MAINS SHOULD BE SEPARATED FROM SANITARY SEWER LINES BY A MINIMUM HORIZONTAL DISTANCE OF 10 FEET. IF SUCH HORIZONTAL SEPARATION IS NOT POSSIBLE, THE WATER AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (STEP TRENCHES ARE PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN ENCASED IN CONCRETE OR WITH SUCH SEPARATION EXPRESSLY APPROVED BY THE DUTCHESS COUNTY DEPARTMENT OF HEALTH.
9. AT THE CROSSINGS OF SEWER LINES AND WATER MAINS, THE TOP OF THE SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE WATER LINE SHALL BE ENCASED IN CONCRETE.
10. GAS, ELECTRIC, LIGHTING, CABLE TELEVISION, AND ELECTRICAL SERVICE PLANS, IF REQUIRED, SHALL BE PREPARED BY THE RESPECTIVE UTILITY COMPANIES THAT SERVICE THE AREA PRIOR TO SITE CONSTRUCTION AND SHALL BE INSTALLED PER ORDINANCE REQUIREMENTS.
11. TELEPHONE, ELECTRIC, AND GAS LINES WILL BE INSTALLED UNDERGROUND. CROSSINGS OF PROPOSED PAVEMENTS WILL BE INSTALLED PRIOR TO THE CONSTRUCTION OF PAVEMENT BASE COURSE.
12. UTILITY RELOCATIONS SHOWN HEREON, IF ANY, ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT ALL REQUIRED UTILITY RELOCATIONS. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING AND/OR COORDINATING ALL REQUIRED UTILITY RELOCATIONS IN COOPERATION WITH THE RESPECTIVE UTILITY COMPANY/AUTHORITIES.
13. PROPOSED ON-SITE WATER SERVICE LINES AND FIRE HYDRANTS ARE PRIVATE UTILITIES AND WILL REMAIN AS SUCH.



LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	EDGE OF PAVEMENT	
FACE / BACK	CURB	FACE / BACK
	DEPRESSED CURB	
	SIDEWALK	
X X	FENCES	X X
	TREELINE	
	ROADWAY SIGNS	
	WETLAND LINE	
	MUNICIPAL BOUNDARY LINE	
	CATCH BASIN	
	DRAIN INLET	
(D)	STORM MANHOLE	(D)
(S)	SANITARY MANHOLE	(S)
	FLARED END SECTION	
	HEADWALL	
	HYDRANT	
	POLE MOUNTED LIGHT	
75 / 74	CONTOURS	75 / 74
× G 29.0	SPOT ELEVATION	× G 29.0
	DIRECTION OF OVERLAND FLOW	
× TC 29.0	TOP OF CURB ELEVATION	× TC 29.0
× BC 29.0	BOTTOM OF CURB ELEVATION	× BC 29.0
	TOP OF DEPRESSED CURB ELEVATION	× TDC 29.0

20 0 20 40

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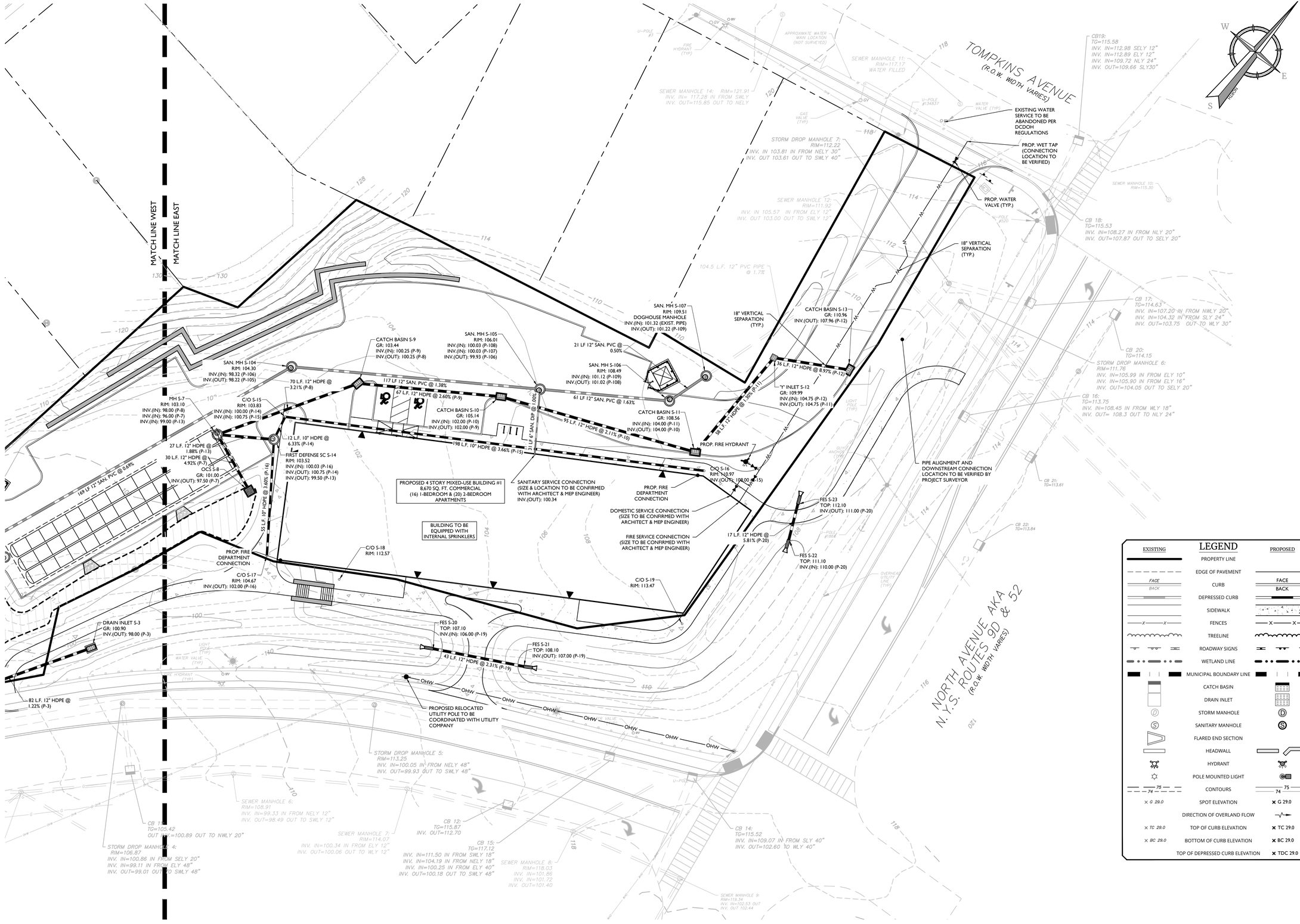
PROJECT NUMBER:	DRAWING NAME:
23010468A	C-UTIL

SHEET TITLE:
UTILITIES PLAN (WEST)

SHEET NUMBER:
07 of 18

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2023\23010468A\Engineering\Site Plans\C-UTIL.dwg\C-07-UTILITY By: KYLE SHALLOW


MATCH LINE WEST
MATCH LINE EAST
TOMPKINS AVENUE
(R.O.W. WIDTH VARIES)
NORTH AVENUE AKA
N.Y.S. ROUTES 9D & 52
(R.O.W. WIDTH VARIES)
PROPOSED 4 STORY MIXED-USE BUILDING #1
8,670 SQ. FT. COMMERCIAL
(16) 1-BEDROOM & (20) 2-BEDROOM
APARTMENTS
BUILDING TO BE EQUIPPED WITH INTERNAL SPRINKLERS
SANITARY SERVICE CONNECTION (SIZE & LOCATION TO BE CONFIRMED WITH ARCHITECT & MEP ENGINEER)
INV.(OUT): 100.34
DOMESTIC SERVICE CONNECTION (SIZE TO BE CONFIRMED WITH ARCHITECT & MEP ENGINEER)
FIRE SERVICE CONNECTION (SIZE TO BE CONFIRMED WITH ARCHITECT & MEP ENGINEER)
PROP. FIRE DEPARTMENT CONNECTION
PROP. FIRE HYDRANT
PROP. WET TAP (CONNECTION LOCATION TO BE VERIFIED)
EXISTING WATER SERVICE TO BE ABANDONED PER DCDOH REGULATIONS
PROP. WATER VALVE (TYP.)
18" VERTICAL SEPARATION (TYP.)
PIPE ALIGNMENT AND DOWNSTREAM CONNECTION LOCATION TO BE VERIFIED BY PROJECT SURVEYOR
PROPOSED RELOCATED UTILITY POLE TO BE COORDINATED WITH UTILITY COMPANY
MH S-7 RIM: 103.10 INV.(IN): 98.00 (P-8) INV.(IN): 96.00 (P-7) INV.(IN): 99.00 (P-13)
SAN. MH S-104 RIM: 104.30 INV.(IN): 98.32 (P-106) INV.(OUT): 98.22 (P-105)
SAN. MH S-105 RIM: 106.01 INV.(IN): 100.03 (P-108) INV.(IN): 100.03 (P-107) INV.(OUT): 99.93 (P-106)
SAN. MH S-106 RIM: 108.49 INV.(IN): 101.12 (P-109) INV.(OUT): 101.02 (P-108)
SAN. MH S-107 RIM: 109.51 DOGHOUSE MANHOLE INV.(IN): 101.32 (EXIST. PIPE) INV.(OUT): 101.22 (P-109)
CATCH BASIN S-9 GR: 103.44 INV.(IN): 100.25 (P-9) INV.(OUT): 100.25 (P-8)
CATCH BASIN S-10 GR: 105.14 INV.(IN): 102.00 (P-10) INV.(OUT): 102.00 (P-9)
CATCH BASIN S-11 GR: 108.56 INV.(IN): 104.00 (P-11) INV.(OUT): 104.00 (P-10)
CATCH BASIN S-12 GR: 110.96 INV.(OUT): 107.96 (P-12)
"Y" INLET S-12 GR: 109.99 INV.(IN): 104.75 (P-12) INV.(OUT): 104.75 (P-11)
C/O S-15 RIM: 103.83 INV.(IN): 100.00 (P-14) INV.(IN): 100.75 (P-15)
C/O S-16 RIM: 110.97 INV.(OUT): 108.00 (P-15)
C/O S-17 RIM: 104.67 INV.(OUT): 102.00 (P-16)
C/O S-18 RIM: 112.57
C/O S-19 RIM: 113.47
OCS S-8 GR: 101.00 INV.(OUT): 97.50 (P-7)
FIRST DEFENSE SC S-14 RIM: 103.52 INV.(IN): 100.03 (P-16) INV.(OUT): 100.75 (P-14) INV.(OUT): 99.50 (P-13)
FES S-20 TOP: 107.10 INV.(IN): 106.00 (P-19)
FES S-21 TOP: 108.10 INV.(OUT): 107.00 (P-19)
FES S-22 TOP: 111.10 INV.(IN): 110.00 (P-20)
FES S-23 TOP: 112.10 INV.(OUT): 111.00 (P-20)
DRAIN INLET S-3 GR: 100.90 INV.(OUT): 98.00 (P-3)
169 LF 12" SAN. PVC @ 0.69%
117 LF 12" SAN. PVC @ 1.38%
104.5 L.F. 12" PVC PIPE @ 1.7%
21 LF 12" SAN. PVC @ 0.50%
61 LF 12" SAN. PVC @ 1.63%
70 L.F. 12" HDPE @ 3.21% (P-8)
67 L.F. 12" HDPE @ 2.60% (P-9)
95 L.F. 12" HDPE @ 2.11% (P-10)
198 L.F. 10" HDPE @ 3.66% (P-15)
55 L.F. 10" HDPE @ 3.60% (P-16)
27 LF. 12" HDPE @ 1.88% (P-13)
30 L.F. 12" HDPE @ 4.92% (P-7)
12 L.F. 10" HDPE @ 6.33% (P-14)
36 L.F. 12" HDPE @ 8.97% (P-12)
38 L.F. 12" HDPE @ 1.58% (P-11)
17 LF. 12" HDPE @ 5.81% (P-20)
43 L.F. 12" HDPE @ 2.31% (P-19)
82 L.F. 12" HDPE @ 1.22% (P-3)
6" SAN. DIP @ 1.00%
CB19: TG=115.58 INV. IN=112.98 SELY 12" INV. IN=112.89 ELY 12" INV. IN=109.72 NLY 24" INV. OUT=109.66 SLY30"
CB 18: TG=115.53 INV. IN=108.27 IN FROM NLY 20" INV. OUT=107.87 OUT TO SELY 20"
CB 17: TG=114.63 INV. IN=107.20 IN FROM NWLY 20" INV. IN=104.32 IN FROM SLY 24" INV. OUT=103.75 OUT TO WLY 30"
CB 20: TG=114.15
STORM DROP MANHOLE 6: RIM=111.76 INV. IN=105.99 IN FROM ELY 10" INV. IN=105.90 IN FROM ELY 16" INV. OUT=104.05 OUT TO SELY 20"
CB 16: TG=113.75 INV. IN=108.45 IN FROM WLY 18" INV. OUT= 108.3 OUT TO NLY 24"
CB 21: TG=113.61
CB 22: TG=113.84
SEWER MANHOLE 14: RIM=121.91 INV. IN= 117.28 IN FROM SWLY INV. OUT=115.85 OUT TO NELY
SEWER MANHOLE 11: RIM=117.17 WATER FILLED
STORM DROP MANHOLE 7: RIM=112.22 INV. IN 103.81 IN FROM NELY 30" INV. OUT 103.61 OUT TO SWLY 40"
SEWER MANHOLE 12: RIM=111.92 INV. IN 105.57 IN FROM ELY 12" INV. OUT 103.00 OUT TO SWLY 12"
SEWER MANHOLE 10: RIM=116.30
STORM DROP MANHOLE 5: RIM=113.25 INV. IN=100.05 IN FROM NELY 48" INV. OUT=99.93 OUT TO SWLY 48"
SEWER MANHOLE 6: RIM=108.91 INV. IN=99.33 IN FROM NELY 12" INV. OUT=98.49 OUT TO SWLY 12"
SEWER MANHOLE 7: RIM=114.07 INV. IN=100.34 IN FROM ELY 12" INV. OUT=100.06 OUT TO WLY 12"
CB 12: TG=115.87 INV. OUT=112.70
CB 15: TG=117.12 INV. IN=111.50 IN FROM SWLY 18" INV. IN=104.19 IN FROM NELY 18" INV. IN=100.25 IN FROM ELY 40" INV. OUT=100.18 OUT TO SWLY 48"
CB 13: TG=105.42 OUT IN=100.89 OUT TO NWLY 20"
STORM DROP MANHOLE 4: RIM=106.87 INV. IN=100.86 IN FROM SELY 20" INV. IN=99.11 IN FROM ELY 48" INV. OUT=99.01 OUT TO SWLY 48"
CB 14: TG=115.52 INV. IN=109.07 IN FROM SLY 40" INV. OUT=102.60 TO WLY 40"
SEWER MANHOLE 8: RIM=118.03 INV. IN=101.86 INV. IN=101.72 INV. OUT=101.40
SEWER MANHOLE 9: RIM=119.34 INV. IN=102.53 OUT INV. OUT 102.44
U-POLE #3
U-POLE #13837
U-POLE #320
U-POLE #186E
U-POLE #1
U-POLE #2
U-POLE #3
U-POLE #4
U-POLE #5
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U-POLE

GENERAL SOIL EROSION AND SEDIMENT CONTROL NOTES

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
2. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN FOURTEEN (14) DAYS FOR DISTURBANCES LESS THAN FIVE (5) ACRES AND SEVEN (7) DAYS FOR DISTURBANCES GREATER THAN FIVE (5) ACRES, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.
3. PERMANENT VEGETATION TO BE SEEDED ON ALL EXPOSED AREAS WITHIN FIVE (5) DAYS AFTER FINAL GRADING. MULCHING IS REQUIRED ON ALL SEEDING. WHEN HYDROSEEDING, MULCH SHALL NOT BE INCLUDED IN THE TANK WITH THE SEED.
4. ALL WORK TO BE DONE IN ACCORDANCE WITH THE 2016 NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL OR AS AMENDED.
5. A SUBBASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUBBASE SHALL BE INSTALLED WITHIN FIVE (5) DAYS OF THE PRELIMINARY GRADING.
6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.
7. ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION CONTINUES (I.E. SLOPES GREATER THAN 3:1).
8. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A STONE PAD, AT ALL CONSTRUCTION DRIVEWAYS, IMMEDIATELY AFTER INITIAL SITE DISTURBANCE.
9. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE COVERED WITH A MINIMUM OF TWELVE (12) INCHES OF SOIL HAVING A PH OF 5 OR MORE PRIOR TO SEEDBED PREPARATION. AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF TWENTY-FOUR (24) INCHES OF SOIL HAVING A PH OF 5 OR MORE.
10. AT THE TIME THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER, SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER.
11. CONDUIT OUTLET PROTECTION MUST BE REVIEWED & SUPPLEMENTED AT ALL OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
12. UNFILTERED DEWATERING IS NOT PERMITTED. TAKE ALL NECESSARY PRECAUTIONS DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH STATE STANDARDS.
13. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED IN ACCORDANCE WITH STATE STANDARDS FOR EROSION CONTROL.
14. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAY WILL BE REMOVED IMMEDIATELY.
15. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION AND SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
16. STOCKPILE AND STAGING LOCATIONS DETERMINED IN THE FIELD, SHALL BE PLACED WITHIN THE LIMITS OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN.
17. CONCRETE WASHOUT, DUMPSTER, & STAGING AREA LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED AT THE PRE-CONSTRUCITON MEETING. THEY SHALL BE PLACED IN THE PROXIMITY OF THE CONSTRUCTION ENTRANCE AND STAGING AREAS AND SHALL BE USED PRIOR TO EXITING THE PROJECT SITE. THE LOCATION SHALL BE IN A PRACTICAL, CLEARLY DELINEATED, AREA AND BE MAINTAINED THROUGHOUT CONSTRUCTION.
18. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
19. ALL PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED BY THE PROPERTY OWNER, AND SHALL BECOME THEIR RESPONSIBILITY.
20. PAVEMENT AREAS ARE TO BE KEPT CLEAN AT ALL TIMES.
21. DURING CONSTRUCTION, ANY ADDITIONAL CONTROL MEASURES AS DEEMED NECESSARY TO PREVENT EROSION OR CONTROL SEDIMENT BEYOND THOSE MEASURES SHOWN ON THE APPROVED PLAN SHALL BE INSTALLED OR EMPLOYED AT THE DIRECTION OF THE MUNICIPAL ENGINEER.
22. ALL TEMPORARY, STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES CAN BE REMOVED, WHEN ALL CONSTRUCTION ACTIVITY IDENTIFIED IN THE SWPPP HAS BEEN COMPLETED, ALL AREAS OF DISTURBANCE HAVE ACHIEVED FINAL STABILIZATION** AND ALL POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE SWPPP AND ARE OPERATIONAL.
23. BOTTOM AND BERM ELEVATIONS OF TEMPORARY SEDIMENT BASINS TO BE REVIEWED WITH THE CONTRACTOR BASED ON THEIR PROPOSED CONSTRUCTION SEQUENCE FOR THE PROJECT.

CONSTRUCTION SEQUENCE

- INSTALL CONSTRUCTION ENTRANCES.
- STAKE LIMITS OF DISTURBANCE AND ORANGE CONSTRUCTION FENCE.
- INSTALL PERIMETER SILT FENCING ON DOWNHILL AREAS AS SHOWN ON PLAN.
- INSTALL SEDIMENT PONDS. INSTALL TEMPORARY SWALES TO DIRECT ALL OPEN SOIL AREA DISTURBANCE TO SEDIMENT PONDS, AS NECESSARY. LOCATIONS AND SIZE OF THE EROSIONS AND SEDIMENT CONTROL PRACTICES ARE NOTED ON THE PLAN. THESE MAY VARY DEPENDING ON THE CONTRACTOR'S SCHEDULE AND APPROACH BUT 3,600 CF OF STORAGE MUST BE PROVIDED AT A MINIMUM PER ACRE OF UPSTREAM DISTURBANCE. SEDIMENT TRAPS SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS AND DETAILS. SEDIMENT TRAPS AND BASINS SHALL BE SIZED IN ACCORDANCE WITH THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL MANUAL.
- SEDIMENT POND RESTORATION: WHEN TEMPORARY STRUCTURES HAVE SERVED THEIR INTENDED PURPOSE AND THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED, THE EMBANKMENT AND RESULTING SEDIMENT DEPOSITS ARE TO BE LEVELED OR OTHERWISE DISPOSED OF. SEDIMENT CAN BE DISPOSED OF BY EXPORTING IT OFF SITE FOR DISPOSAL OR BE USED AS FILL IN LAWN AREAS. SEDIMENT PONDS IN FUTURE OPEN SPACE OR LAWN AREAS MAY BE PUMPED DRY, GRADED, AND BACKFILLED. SEDIMENT PONDS IN PAVED OR STRUCTURAL AREAS MUST HAVE THE BASIN MATERIAL AND TRAPPED SEDIMENTS REMOVED, SAFELY DISPOSED OF, AND BACKFILLED WITH STRUCTURAL FILL. SEDIMENT PONDS IN LOCATIONS OF FUTURE STORMWATER PONDS MUST HAVE THE TRAPPED SEDIMENT REMOVED LEAVING THE BASIN AREA OPEN FOR THE DEVELOPMENT OF THE FINAL STORMWATER POND.
- ROUGH GRADE PROPOSED DRIVEWAY/ROAD.
- DISTURBED SOILS SHALL BE TEMPORARILY STABILIZED AS SOON AS PRACTICAL. MATERIALS STORED IN STOCKPILES SHALL BE CORDONED OFF WITH SILT FENCE PER THE APPROPRIATE SPECIFICATIONS AND DETAILS. THE OPERATOR SHALL INITIATE STABILIZATION MEASURES AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
- CONSTRUCT ROADS, DRIVES, BUILDINGS, PARKING AREAS AND INSTALL DRAINAGE SYSTEMS.
- TOPSOIL/HAYSEED LAWN AREAS.
- THE PROJECT SITE MUST MEET FINAL STABILIZATION CRITERIA PRIOR TO REMOVING ALL EROSION AND SEDIMENT CONTROL DEVICES AND CLOSING OUT THE PROJECT. LITTER AND CONSTRUCTION DEBRIS SHALL BE REMOVED AS PRACTICAL THROUGHOUT THE LIFE OF THE PROJECT.
- UPON FINAL STABILIZATION BEING MET, THE CONTRACTOR SHALL CLEAR DRAINAGE PIPES AND STRUCTURES OF ANY SEDIMENT WHICH MAY HAVE ACCUMULATED. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED, AS MAY BE NECESSARY, REQUIRED AND/OR REQUESTED BY AUTHORITIES, TO PREVENT THE INCIDENTAL DISCHARGE OF SILT LADEN RUNOFF FROM ENTERING A WATER COURSE OR A DRAINAGE SYSTEM. THE GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES STATES THAT IT IS UNLAWFUL FOR ANY PERSON TO CAUSE OR CONTRIBUTE TO A VIOLATION OF WATER QUALITY STANDARDS.
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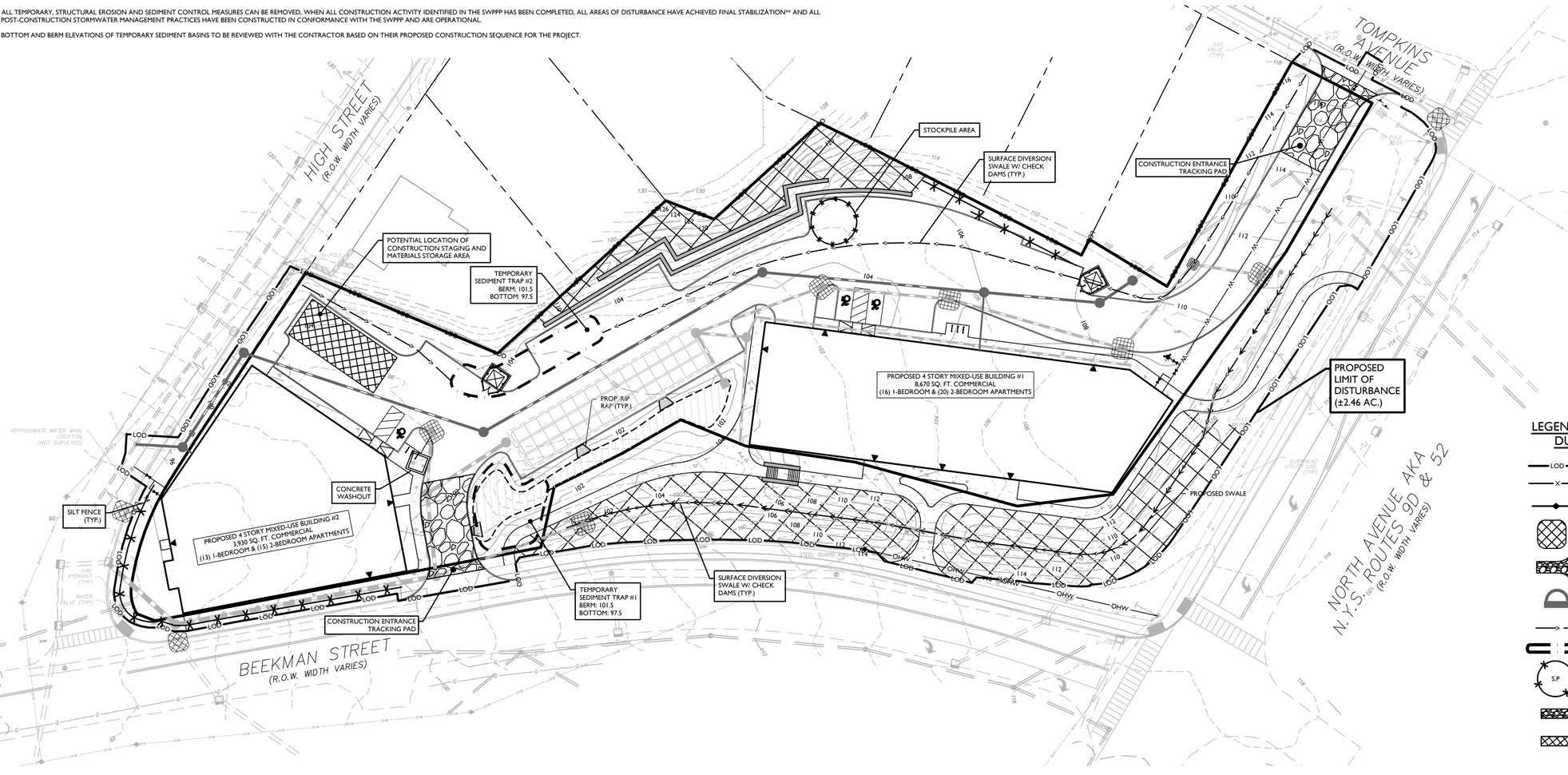
**FINAL STABILIZATION - MEANS THAT ALL SOIL DISTURBANCE ACTIVITIES HAVE CEASED AND A UNIFORM, PERENNIAL VEGETATIVE COVER WITH A DENSITY OF EIGHTY (80) PERCENT OVER THE ENTIRE PERVIOUS SURFACE HAS BEEN ESTABLISHED; OR OTHER EQUIVALENT STABILIZATION MEASURES, SUCH AS PERMANENT LANDSCAPE MULCHES, ROCK RIP-RAP OR WASHED/CRUSHED STONE HAVE BEEN APPLIED ON ALL DISTURBED AREAS THAT ARE NOT COVERED BY PERMANENT STRUCTURES, CONCRETE OR PAVEMENT.

MAINTENANCE PLAN DURING CONSTRUCTION:

INSPECTION AND MAINTENANCE SHALL BE PERFORMED IN CONFORMANCE WITH GP-0-20-001 OR AS AMENDED. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED AND INSTALLED FOR THE PROJECT. THE SEDIMENT TRAPS WILL BE CLEANED OUT WHEN THE LEVEL OF SEDIMENT REACHES 25% OF ITS' CAPACITY. SEDIMENT WILL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT BECOMES APPROXIMATELY 6" DEEP AT THE FENCE. THE SILT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. ALL SEEDED AREAS WILL BE FERTILIZED, RE-SEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE LANDSCAPE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.

MAINTENANCE AGREEMENT NOTE:

THE OWNER/APPLICANT SHALL ENTER INTO AN ENFORCEABLE MAINTENANCE AGREEMENT WITH THE MUNICIPALITY (IF AN MS4 COMMUNITY). RELATED TO MAINTENANCE OF STORMWATER FACILITIES. THE OWNER/APPLICANT IS RESPONSIBLE TO PERFORM ALL REQUIRED MAINTENANCE BOTH DURING CONSTRUCTION AND LONG-TERM. THE NATURE OF THE AGREEMENT IS TO ALLOW THE MUNICIPALITY TO PERFORM MAINTENANCE AT THEIR OPTION SHOULD THE OWNER/APPLICANT FAIL TO ADEQUATELY MAINTAIN THE SYSTEM AS DETERMINED BY THE MUNICIPAL ENGINEER. MAINTENANCE OF THE STORMWATER SYSTEM SHALL BE PERFORMED IN ACCORDANCE WITH THE APPROVED SWPPP AND DETAIL SHEETS.



LEGEND FOR EROSION CONTROL DURING CONSTRUCTION

- LOD — CONSTRUCTION LIMIT LINE
- X — SILT FENCE
- ORANGE CONSTRUCTION FENCE
- STORM INLET SEDIMENT TRAP
- STABILIZED CONSTRUCTION ENTRANCE
- SEDIMENT TRAP OUTLET
- TEMPORARY SWALE
- TEMPORARY SEDIMENT BASIN
- S.P — MATERIAL STOCKPILE
- CHECK DAM
- SLOPE MATTING

30 0 30 60

SCALE : 1" = 30'

SELECT LINEAR UNIT OF MEASURE

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY MAPS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

2023\23010468A\Engineering\Site Plans\C-SESC.dwg|C-09 SOIL EROSION By: KYLE SHALLOW

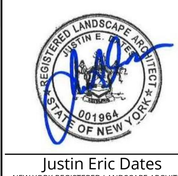
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Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

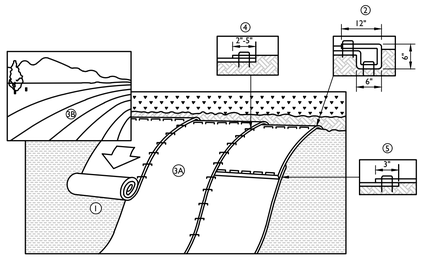
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AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER:	DRAWING NAME:
23010468A	C-SESC

SHEET TITLE:
SOIL EROSION & SEDIMENT CONTROL PLAN

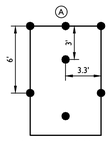
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09 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

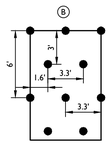


SLOPE INSTALLATION

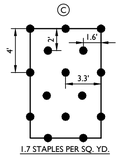
STAPLES PATTERN GUIDE
6.67' WIDE ROLLS



0.7 STAPLES PER SQ. YD.



1.15 STAPLES PER SQ. YD.



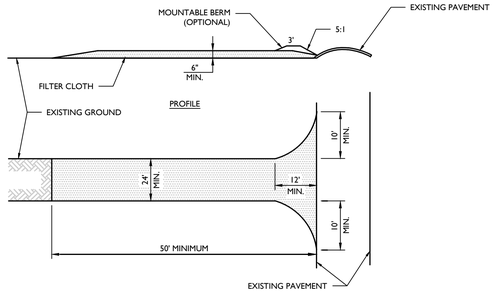
1.7 STAPLES PER SQ. YD.

NOTES:

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPS), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER AND SEED.
   * WHEN USING MATTING WITH SEED, DO NOT SEED THE AREA. FOLLOW MANUFACTURER'S RECOMMENDATIONS.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" DEEP x 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPS WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
3. ROLL THE RECP'S (A.) DOWN OR (B.) HORIZONTALLY STEP BY STEP ACROSS THE SLOPE TAMPERING IT DOWN ALONG THE WAY. RECP'S SHALL UNROLL WITH APPROPRIATE SIDE TIGHTLY AGAINST THE SOIL SURFACE. RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKESSHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP'S MUST BE STAKED WITH APPROXIMATELY 2" TO 5" OVERLAP DEPENDING ON RECP'S TYPE.
5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP'S WIDTH.
   * IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

EROSION MATTING (CURLEX ENFORCER I) DETAIL

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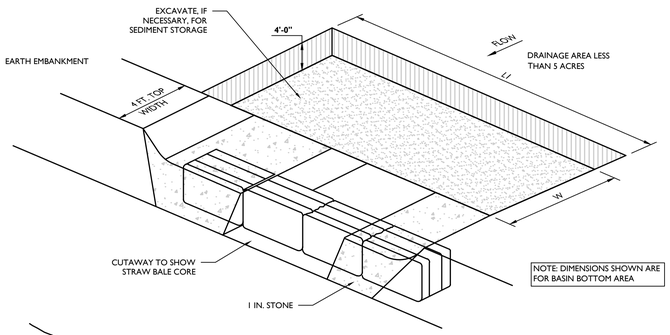
PLAN VIEW

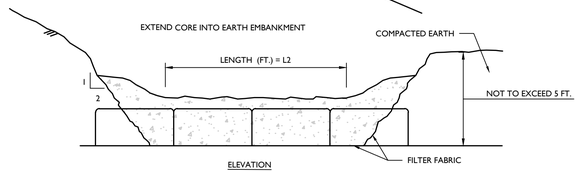
NOTES:

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT. LENGTH: NOT LESS THAN 50 FEET. THICKNESS: NOT LESS THAN (6) INCHES.
2. WIDTH - 24'
3. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
4. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTING BERM WITH 5:1 SLOPES WILL BE PERMITTED.
5. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
6. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED BY THE CONTRACTOR AS REQUIRED.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

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ELEVATION

TO BE INSTALLED PRIOR TO GRADING OR FILLING IN THE DRAINAGE AREA THEY ARE TO PROTECT. TRAPS THAT ARE TO FUNCTION DURING BUILDING CONSTRUCTION MUST NOT BE LOCATED WITHIN 20 FEET OF A PROPOSED BUILDING FOUNDATION. WHILE TRAPS SHOULD BE SITED TO MAXIMIZE STORAGE BENEFIT, THEY SHOULD NOT BE LOCATED IN WETLANDS OR WETLAND BUFFER AREAS, OR IN EXISTING WATERCOURSES.

SEE EROSION AND SEDIMENT CONTROL PLAN FOR LOCATIONS.

INSTALLATION NOTES:

1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED AS WELL.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVER SIZED STONES, ROCKS, ORGANIC MATERIAL AND OTHER QUESTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
3. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
4. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
5. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
6. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
7. ALL CUT AND FILL SLOPES SHALL BE 1 : 2 OR FLATTER.
8. THE STONE USED IN THE OUTLET SHALL BE SMALL RIPRAP 4"-8" ALONG WITH A 1' THICKNESS OF 2" AGGREGATE PLACED ON THE UP GRADE SIDE ON THE SMALL RIPRAP OR EMBEDDED FILTER CLOTH IN THE RIPRAP.

SIZING CALCULATIONS

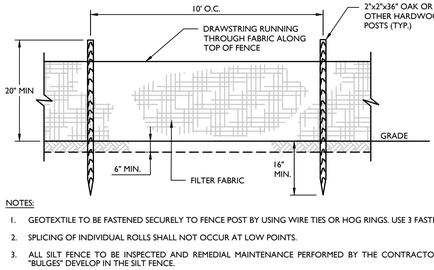
NOTE:

1. 3,600 CUBIC FEET OF STORAGE REQUIRED PER ACRE OF DISTURBANCE.

*THIS IS THE MINIMUM AMOUNT OF SEDIMENT TRAPS, ADDITIONAL MAY BE REQUIRED BASED UPON OTHER ON-SITE CONDITIONS AND CONTRACTOR SCHEDULE AND PHASING ACTIVITIES.

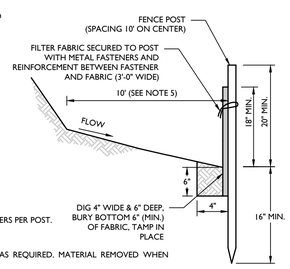
STONE OUTLET SEDIMENT TRAP DETAIL

NOT TO SCALE | MCNY-SOIL-EROS-1601 | 07/01/19



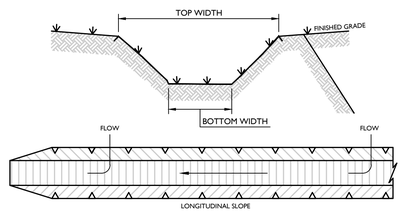
NOTES:

1. GEOTEXTILE TO BE FASTENED SECURELY TO FENCE POST BY USING WIRE TIES OR HOG RINGS. USE 3 FASTENERS PER POST.
2. SPLICING OF INDIVIDUAL ROLLS SHALL NOT OCCUR AT LOW POINTS.
3. ALL SILT FENCE TO BE INSPECTED AND REMEDIAL MAINTENANCE PERFORMED BY THE CONTRACTOR AS REQUIRED. MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
4. WHEN TWO SECTIONS OF FILTER FABRIC ARE JOINED, THEY SHALL BE OVER-WRAPPED BY SIX INCHES AND FOLDED.
5. FILTER FABRIC TO BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
6. PREFABRICATED UNITS SHALL MEET THE MINIMUM REQUIREMENTS SHOWN.
7. IF SPACE PERMITTED, LOCATE SILT FENCE 10' AWAY FROM TOE OF SLOPE IF THE SLOPE IS STEEPER THAN 1:1.



STANDARD SILT FENCE DETAIL

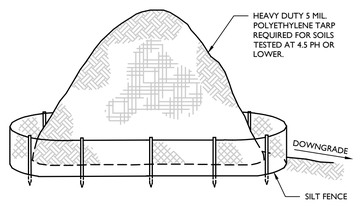
NOT TO SCALE | MCNY-SOIL-EROS-1100 | 07/01/19



PLAN

VEGETATED SWALE					
SWALE	BOTTOM WIDTH	SIDE SLOPE	LONGITUDINAL SLOPE	DEPTH	LENGTH
1R	2.0 FT	50%	2.00%		506'

VEGETATIVE SWALE DETAIL

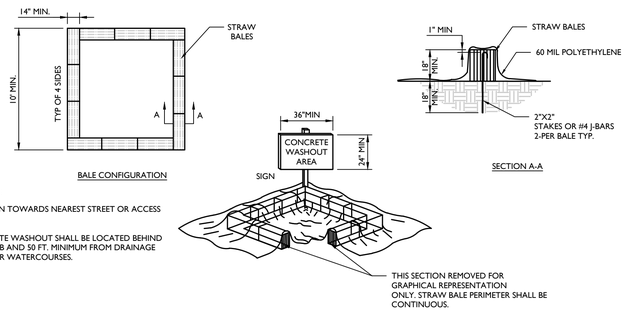


NOTES:

1. ALL STOCKPILES SHALL NOT TO BE LOCATED WITHIN 50 FEET OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY.

TOPSOIL STOCKPILE DETAIL

NOT TO SCALE | MCNY-SOIL-EROS-2500 | 07/01/19



DETAIL NOTES:

1. FACE SIGN TOWARDS NEAREST STREET OR ACCESS POINT.
2. CONCRETE WASHOUT SHALL BE LOCATED BEHIND THE CURB AND 50 FT. MINIMUM FROM DRAINAGE INLETS OR WATERCOURSES.

NOTES:

1. CONCRETE WASHOUTS ARE REQUIRED ON ALL CONSTRUCTION SITES INVOLVING CONCRETE AND STUCCO USE.
2. THE CONTRACTOR SHALL REQUIRE ALL CONCRETE DRIVERS TO UTILIZE THE CONCRETE WASHOUTS ONSITE.
3. WASHOUT FACILITIES SHALL BE LOCATED AT LEAST 50 FEET AWAY FROM STORM SEWER DRAIN INLETS, GUTTERS, OPEN DITCHES, AND WATER COURSES.
4. APPROPRIATE STONE SHOULD COVER PATHS TO CONCRETE WASHOUT.
5. THE NUMBER OF CONCRETE WASHOUTS DEPENDS ON THE EXPECTED DEMAND FOR STORAGE CAPACITY. LARGE SITES WITH EXTENSIVE CONCRETE WORK SHALL BE PLACED AT MULTIPLE LOCATIONS FOR USE BY CONCRETE TRUCK DRIVERS.
6. CONCRETE WASHOUT AREAS SHALL BE IDENTIFIED BY POSTING SIGNS ONSITE.
7. CONCRETE WASHOUTS ARE TO BE INSPECTED DAILY BY THE CONTRACTOR FOR LEAKS OR TEARS IN PLASTIC LINER.
8. REMOVE AND DISPOSE OF ALL MATERIAL WHEN THE WASHOUT HAS BEEN FILLED TO 75% CAPACITY.
9. PRIOR TO ANY RAINFALL, ALL CONCRETE WASHOUTS ARE TO BE CLEANED OUT OR COVERED.
10. ONCE THE MATERIAL HAS BEEN CLEANED OUT OF THE CONCRETE WASHOUT FACILITY, THE FACILITY MUST BE INSPECTED FOR REPAIR, RECONSTRUCTION OR REPLACEMENT. ALL PLASTIC LINING SHALL BE REMOVED AND REPLACED.
11. PRE-FABRICATED OR ONSITE FABRICATED CONCRETE WASHOUTS MAY BE USED.
12. OPTIONS FOR ONSITE CONCRETE WASHOUTS:
    A. DIG A PIT AND LINE WITH 10 MIL PLASTIC SHEETING.
    B. CREATE AN ABOVE-GROUND STRUCTURE FROM STRAW BALES OR SANDBAGS WITH 10 MIL PLASTIC LINING.

CONCRETE WASHOUT DETAIL

NOT TO SCALE | MCNY-SOIL-EROS-1700 | 07/01/19

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Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
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Engineering & Design
NEWBURGH
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Suite 101
New Windsor, NY 12553
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AS SHOWN	01/30/2024	KAS	CPM

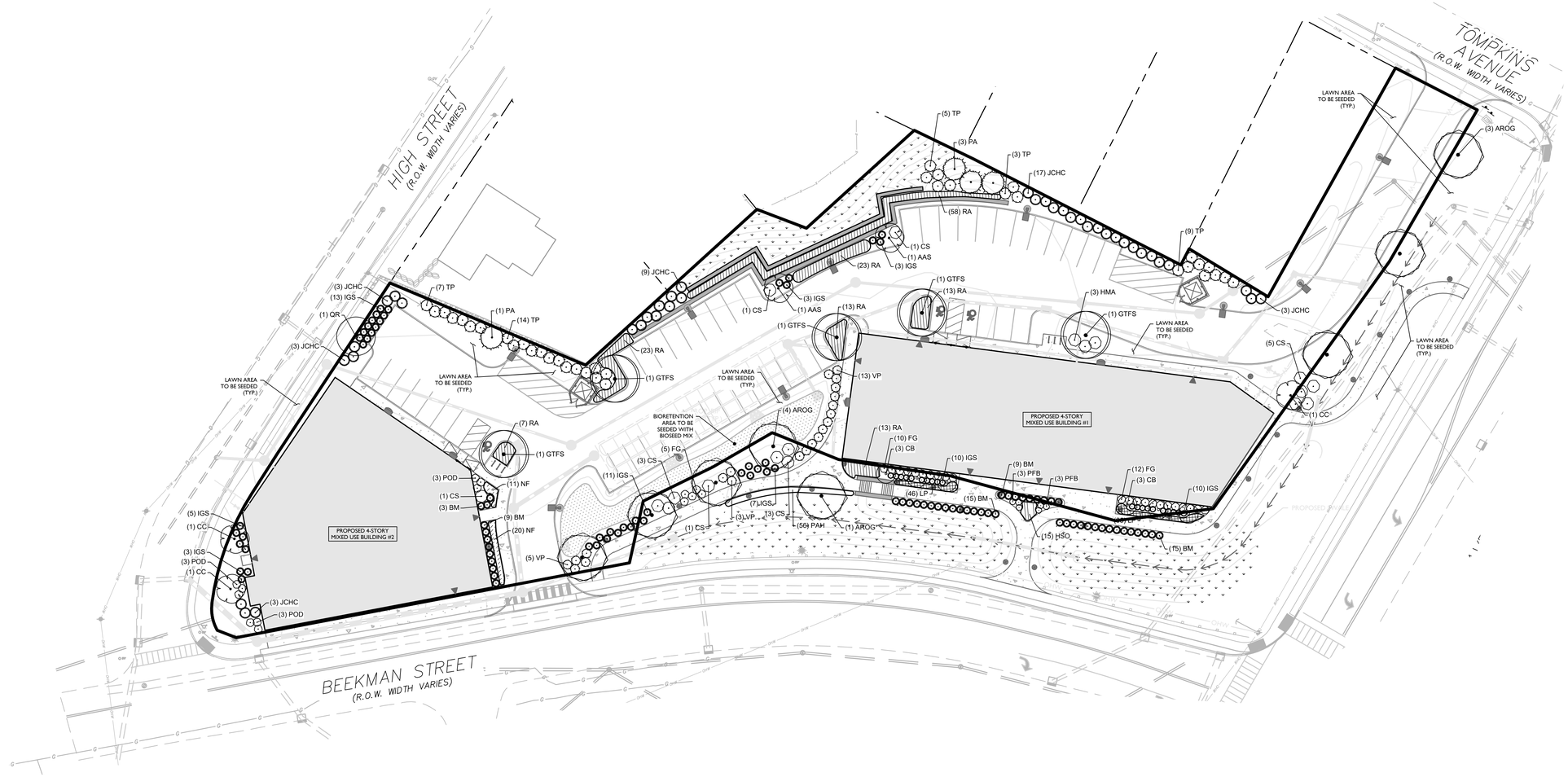
PROJECT NUMBER:	DRAWING NAME:
23010468A	C-SESC

SHEET TITLE:
SOIL EROSION & SEDIMENT CONTROL DETAILS

SHEET NUMBER:
10 of 18

2023\23010468A\Engineering\Site Plans\C-SESC.dwg|C-10 SOIL EROSION DETAILS By: KYLE SHALLOW

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION



SITE PLANTING SCHEDULE

	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	REMARKS
DECIDUOUS TREES						
AROG	8	Acer rubrum 'October Glory'	October Glory Red Maple	B & B	2"-2-1/2" Cal.	STRAIGHT LEADER/SYM. BRANCHING
GTFS	5	Gleditsia triacanthos 'Skyline'	Skyline Honey Locust	B & B	2"-2-1/2" Cal.	STRAIGHT LEADER/SYM. BRANCHING
QR	1	Quercus rubra	Red Oak	B & B	2"-2-1/2" Cal.	STRAIGHT LEADER/SYM. BRANCHING
EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	REMARKS
PA	4	Picea abies	Norway Spruce	B & B	6-8` Ht.	DENSE / TYP. SPECIES HABIT
ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	REMARKS
AAS	2	Amelanchier alnifolia	Serviceberry	B & B	6-7` Ht.	MULTISTEM / TYP. SPECIES HABIT
CB	6	Carpinus betulus 'Frans Fontaine'	Frans Fontaine Hornbeam	B & B	1-3/4"-2" Cal.	STRAIGHT LEADER/SYM. BRANCHING
CC	3	Cercis canadens	Eastern Redbud	B & B	6-7` Ht.	STRAIGHT LEADER/SYM. BRANCHING
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	REMARKS
CS	15	Cornus sericea	Red Twig Dogwood	CONT	24" - 30"	TYPICAL SPECIES HABIT
BM	51	Buxus microphylla var. japonica 'Winter Gem'	Winter Gem Boxwood	CONT	18" - 24"	TYPICAL SPECIES HABIT
FG	27	Fothergilla gardenii	Dwarf Fothergilla	CONT	18" - 24"	TYPICAL SPECIES HABIT
HMA	3	Hydrangea macrophylla 'All Summer Beauty'	All Summer Beauty Hydrangea	CONT	24" - 30"	TYPICAL SPECIES HABIT
IGS	65	Ilex glabra `Shamrock`	Inkberry	CONT	18" - 24"	TYPICAL SPECIES HABIT
JCHC	38	Juniperus chinensis 'Hetzii Columnaris'	Hetzi Column Juniper	CONT	6-8` Ht.	TYPICAL SPECIES HABIT
PFB	6	Potentilla fruticosa	Bush Cinquefoil	CONT	18" - 24"	TYPICAL SPECIES HABIT
POD	9	Physocarpus opulifolius 'Diabolo'	Diabolo Ninebark	CONT	24" - 30"	TYPICAL SPECIES HABIT
RA	150	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	CONT	18" - 24" SPREAD	TYPICAL SPECIES HABIT, 3.5' O.C.
TP	38	Thuja x plicata 'Green Giant'	Green Giant Arborvitae	CONT	5-6' Ht.	TYPICAL SPECIES HABIT
VP	21	Viburnum prunifolium	Blackhaw Viburnum	CONT	24" - 30"	TYPICAL SPECIES HABIT
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	
HSO	15	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily	1 gal	24" o.c.	
LP	111	Liriope platyphylla	Liriope Grass	SP5	18" o.c.	
NF	31	Nepeta x faassenii	Catmint	1 gal.	24" o.c.	
PAH	56	Pennisetum alopecuroides 'Hameln'	Hameln Fountain Grass	1 gal.	24" o.c.	

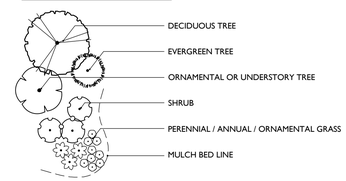
PLAN NOTE

1. THIS PLAN IS TO BE USED FOR LANDSCAPE PURPOSES ONLY. REFER TO DETAIL SHEETS FOR GENERAL NOTES AND LANDSCAPE DETAILS.

LANDSCAPE NOTES

1. LOCATIONS OF ALL PLANT MATERIAL AND PLANTING BED OUTLINES IS APPROXIMATE AND MAY VARY DUE TO THE LOCATIONS OF SITE IMPROVEMENTS AND/OR BUILDING.
2. FINAL LOCATION OF ALL PLANT MATERIAL AND PLANTING BED OUTLINES SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF THE PROJECT LANDSCAPE ARCHITECT.
3. ALL AREAS WITHIN THE PLANTING BED LIMITS SHALL BE MULCHED WITH 3" OF SHREDDED HARDWOOD BARK MULCH.
4. PROPOSED LAWN AREAS AROUND BUILDINGS SHALL BE STABILIZED WITH SEED. SEED MIXTURE #1 TO BE USED ON NORTHERN & WESTERN LAWN AREAS AND SEED MIXTURE #2 TO BE USED ON SOUTHERN & EASTERN LAWN AREAS.
5. ANY PROPOSED IRRIGATION DESIGN AND/OR SYSTEM WILL BE DETERMINED IN THE FIELD BY THE IRRIGATION CONTRACTOR.
6. ALL PLANT MATERIAL SHALL CONFORM TO GUIDELINES AS SET FORTH IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARD FOR NURSERY STOCK.
7. NO SUBSTITUTIONS OF PLANT MATERIALS ARE TO BE MADE WITHOUT THE WRITTEN CONSENT OF THE OWNER AND PROJECT LANDSCAPE ARCHITECT.
8. ALL VEGETATION SHOWN ON THIS PLAN WILL BE MAINTAINED IN A HEALTHY AND VIGOROUS GROWING CONDITION THROUGHOUT THE DURATION OF THE PROPOSED USE.

LANDSCAPE LEGEND



NOTE:
1. LANDSCAPE SYMBOLS ON THE PLAN VARY AND MAY DEVIATE FROM THE LANDSCAPE LEGEND SYMBOLS SHOWN ABOVE.

LAWN SEED MIX

NATIVE MEADOW MIX

BIORETENTION SEED MIX

30 0 30 60

SCALE : 1" = 30'
SELECT LINEAR UNIT OF MEASURE

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2023\23010468A\Engineering\Site Plans\C-LAND.dwg\C-111-LANDSCAPE By: KYLE SHALLOW

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JUSTIN E. DATES
001964
STATE OF NEW YORK

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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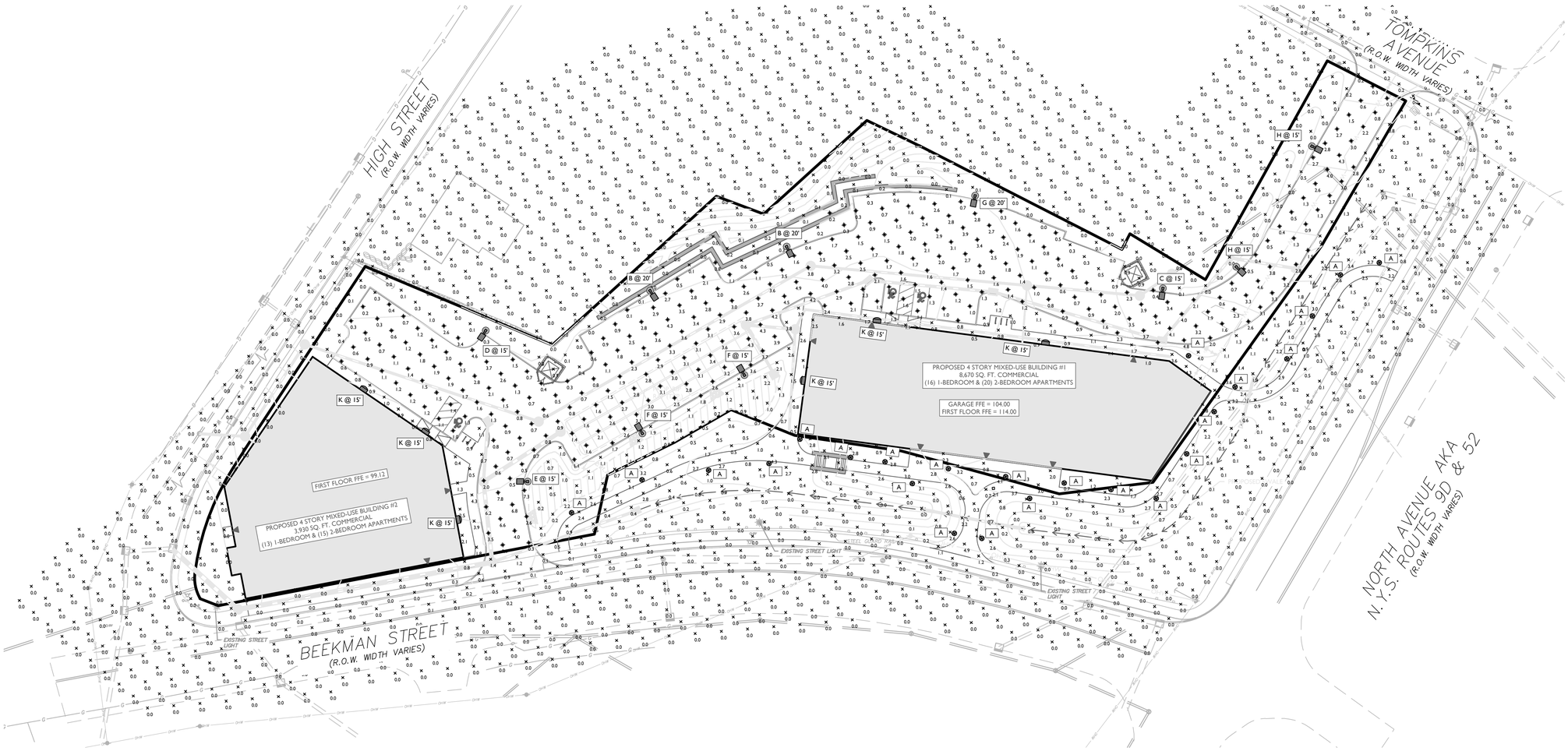
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PROJECT NUMBER: 23010468A
DRAWING NAME: C-LAND

SHEET TITLE: LANDSCAPE PLAN

SHEET NUMBER: 11 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION



LUMINAIRE SCHEDULE

KEY	QTY.	DESCRIPTION	ARRANGEMENT	MTG. HT.	LUMENS/LAMP	LLF	CATALOG #
A	24	HYDREL IMPACT RESISTANT ROUND BOLLARD FLAT TOP	SINGLE (BOLLARD)	3.5'	1,519	0.9	3120C-H42-8COB-30K-MVOLT-FT-BL-PL
B	2	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	20'	12,352	0.9	DSX0 LED-P6-30K-80CRI-BLC4-MVOLT-SPA-DBLXD-PER5
C	1	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	15'	7,768	0.9	DSX0 LED-P4-30K-80CRI-BLC3-MVOLT-SPA-DBLXD-PER5
D	1	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	15'	8,023	0.9	DSX0 LED-P4-30K-80CRI-BLC4-MVOLT-SPA-DBLXD-PER5
E	1	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	15'	7,838	0.9	DSX0 LED-P4-30K-80CRI-RCCO-MVOLT-SPA-DBLXD-PER5
F	2	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	15'	5,862	0.9	DSX0 LED-P2-30K-80CRI-T2M-MVOLT-SPA-DBLXD-PER5
G	1	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	20'	11,367	0.9	DSX0 LED-P6-30K-80CRI-BLC4-MVOLT-SPA-EGSR-DBLXD-PER5
H	2	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	15'	6,398	0.9	DSX0 LED-P3-30K-80CRI-BLC3-MVOLT-SPA-DBLXD-PER5
K	6	LITHONIA LIGHTING D-SERIES SIZE 1 LED WALL LUMINAIRE	SINGLE (WALL PACK)	15'	1,415	0.9	DSXW1 LED-10C-350-30K-TS2-MVOLT-DBLXD

CALCULATION SUMMARY

DESCRIPTION	CALC. TYPE	UNITS	AVG.	MAX.	MIN.	AVG. / MIN.
PARKING, DRIVE & SIDEWALK	ILLUMINANCE	FC	2.1	7.8	0.3	7.0:1

LIGHTING NOTES:

1. THIS PLAN IS TO BE USED FOR LIGHTING PURPOSES ONLY.
2. POLES AND FIXTURES AS SUPPLIED BY:
   FIXTURES - LITHONIA LIGHTING
   POLE - HOLOPHANE
   BOLLARD FIXTURES - HYDREL
3. LAMPS ARE TO BE LEDs. A LIGHT LOSS FACTOR (LLF) WAS USED AS SHOWN IN THE LUMINARIES SCHEDULE.
4. FIXTURES AND POLES ARE TO BE BLACK.
5. POLE MOUNTED FIXTURES SHALL BE PLACED A MINIMUM OF TWO (2) FEET BEHIND CURBS, EDGE OF PAVEMENT OR RETAINING WALLS IN CAR PARKING AREAS.
6. PROPOSED LIGHT FIXTURE LOCATIONS ARE CRITICAL TO PROVIDE THE LIGHTING LEVELS DEPICTED ON THIS PLAN. THE LIGHTING CONTRACTOR SHALL FIELD VERIFY FIXTURE LOCATIONS PRIOR TO INSTALLATION. IF ADJUSTMENT TO ANY LIGHT FIXTURE LOCATION IS REQUIRED DUE TO FINAL CONSTRUCTION OF UTILITIES AND SITE IMPROVEMENTS, THE LIGHTING CONTRACTOR SHALL NOTIFY THE PROJECT LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO INSTALLATION.
7. LIGHTING SHOWN ON PLAN DEPICTS AVERAGE MAINTAINED FOOTCANDLE LEVELS AT GRADE.
8. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF LIGHT FIXTURES FOR REVIEW AND APPROVAL BY THE OWNER OR PROJECT LANDSCAPE ARCHITECT.
9. ELECTRICAL PLANS FOR WIRING LAYOUT BY OTHERS.
10. POLE BASE INSTALLATION SHALL INCLUDE A SUPPLEMENTARY GROUND ROD AND WIRE LEAD TO BASE FOR POWER CONNECTION. DETAILS PER PROJECT ELECTRICAL ENGINEER.
11. ALL LIGHTING FIXTURES WILL BE DARK SKY COMPLIANT.

LIGHTING LEGEND:

- SINGLE FIXTURE POLE LIGHT
- WALLPACK
- BOLLARD LIGHT
- 0.0 LIGHT LEVEL AT GRADE (IN FOOTCANDLES)

30 0 30 60

SCALE : 1" = 30'
SELECT LINEAR UNIT OF MEASURE

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Justin Eric Dates
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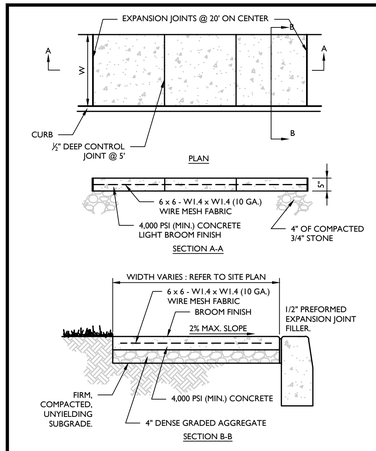
PROJECT NUMBER:	DRAWING NAME:
23010468A	C-LGHT

SHEET TITLE:
LIGHTING PLAN

SHEET NUMBER:
12 of 18

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2023\23010468A\Engineering\Site Plans\C-LGHT.dwg|C-12 LIGHTING By: KYLE SHALLOW

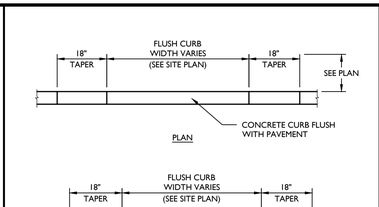


NOTES:

1. A PREFORMED, BITUMINOUS EXPANSION JOINT 1/2" THICK, 4" WIDE AND EXTENDING THE FULL WIDTH OF THE SIDEWALK (UNBROKEN) SHALL BE INSTALLED.
2. ½" DEEP CONTROL JOINTS INSTALLED AT AN INTERVAL OF EVERY 5'.
3. JOINT FILLER SHALL CONFORM TO AASHTO M-33. SURFACE OF CONCRETE SHALL BE BROOM FINISH. ROUND EDGES USING AN EDGING TOOL WITH A 1/4" RADIUS.
4. CONCRETE SIDEWALK SHALL BE CONSTRUCTED PER THE LATEST ADA REQUIREMENTS.

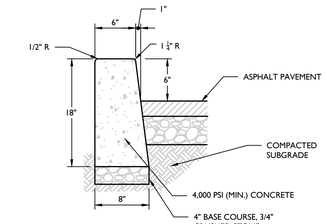
REINFORCED CONCRETE SIDEWALK (NEXT TO CURB) DETAIL

NOT TO SCALE | MCNY-SITE-PVMT-1800 | 07/01/19



CONCRETE FLUSH CURB DETAIL

NOT TO SCALE | MCNY-SITE-CURB-1300 | 07/01/19

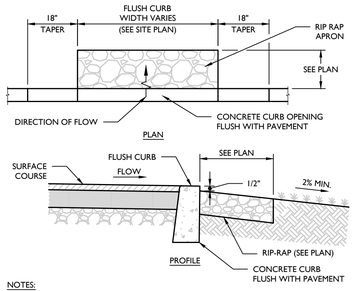


NOTES:

1. PREFORMED BITUMINOUS FIBER EXPANSION JOINTS, 1/2" THICK AT 20' MAX. INTERVALS ALONG THE CURB. PROVIDE CONTROL JOINTS @ 10 FEET MAX. BETWEEN EXPANSION JOINTS.

CONCRETE CURB (ASPHALT PAVEMENT) DETAIL

NOT TO SCALE | MCNY-SITE-CURB-1000 | 07/01/19

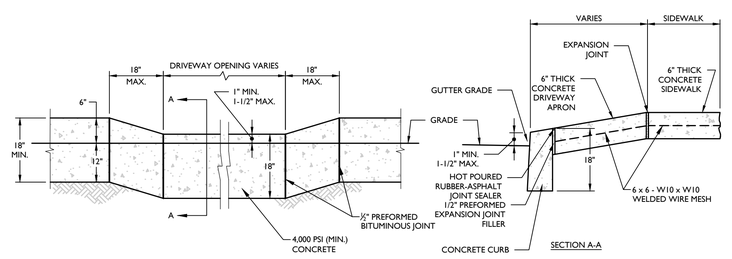


NOTES:

1. FLUSH CURB FOR OVERLAND FLOW TO BE USED AT DESIGNATED LOCATIONS ONLY AS SHOWN ON SITE PLANS.
2. CONTRACTOR SHALL ENSURE THAT THERE IS POSITIVE DRAINAGE FROM THE PAVEMENT TO THE GRASSED AREA.

FLUSH CURB FOR DRAINAGE DETAIL

NOT TO SCALE | MCNY-SITE-CURB-1400 | 07/01/19

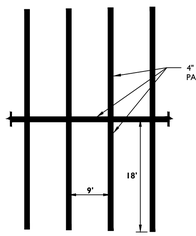


NOTES:

1. DEPRESSED VERTICAL CURB AT DRIVEWAY AND RAMP AREAS SHALL BE FULL DEPTH OF 18".

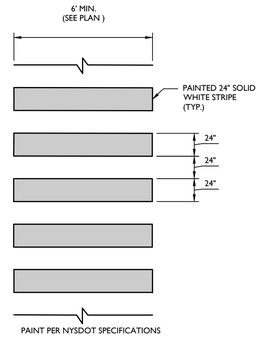
DEPRESSED CONCRETE CURB AT DRIVEWAY DETAIL

NOT TO SCALE | MCNY-SITE-CURB-1700 | 07/01/19



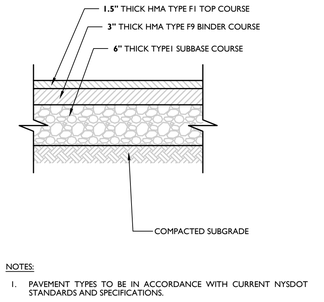
TYPICAL PARKING STALL STRIPING DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-1000 | 07/01/19



PEDESTRIAN CROSSWALK DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-1401 | 07/01/19

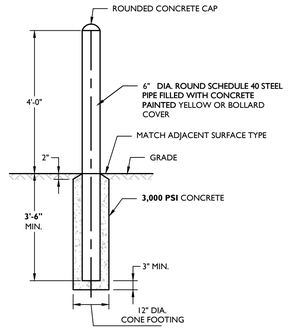


NOTES:

1. PAVEMENT TYPES TO BE IN ACCORDANCE WITH CURRENT NYSDOT STANDARDS AND SPECIFICATIONS.

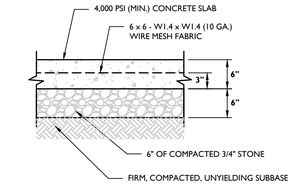
STANDARD ASPHALT PAVEMENT DETAIL

NOT TO SCALE | MCNY-SITE-PVMT-1000 | 07/01/19



BOLLARD DETAIL

NOT TO SCALE | MCCM-SITE-FNCE-2300 | 07/01/19



TRASH ENCLOSURE CONCRETE PAD DETAIL

NOT TO SCALE | MCNY-SITE-PVMT-2100 | 07/01/19

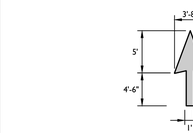


NOTES:

1. INSTALL SIGN WHERE NOTED ON PLAN.
2. THE BOTTOM OF THE LOWEST SIGN SHALL BE MOUNTED 60" ABOVE THE PARKING LOT OR SIDEWALK SURFACE WHEN THE SIGN IS PARALLEL TO THE SIDEWALK AND 72" ABOVE THE PARKING LOT OR SIDEWALK WHEN THE SIGN IS PERPENDICULAR TO THE SIDEWALK.

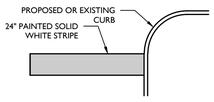
ACCESSIBLE PARKING SIGN DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-2200 | 07/01/19



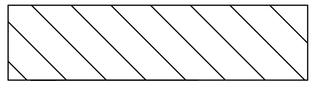
STRAIGHT PAVEMENT ARROW DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-1200 | 07/01/19



TYPICAL STOP BAR DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-1100 | 07/01/19

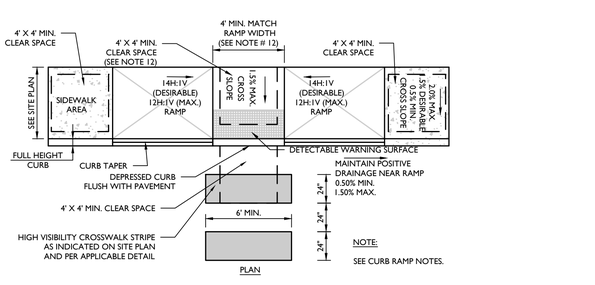


NOTES:

1. 4.0' ON CENTER
2. 4" YELLOW AT 45 DEGREES
3. WIDTH TO BE CONFIRMED WITH LOCAL JURISDICTIONAL ENTITY.

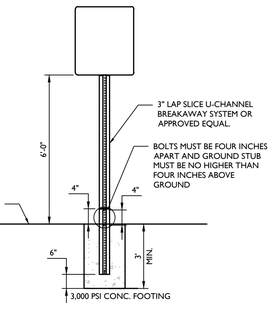
FIRE ZONE / LOADING AREA STRIPING DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-2100 | 07/01/19



CURB RAMP TYPE 7 DETAIL

NOT TO SCALE | MCNY-SITE-HADA-1600 | 07/01/19

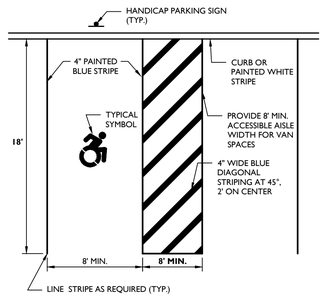


NOTE:

1. ALL SIGNS SHALL CONFORM TO THE CURRENT MANUAL ON "UNIFORM TRAFFIC CONTROL DEVICES" FOR STREETS AND HIGHWAYS AND CURRENT MUNICIPAL SPECIFICATIONS FOR COLOR, DESIGN AND EXACT WORDING.

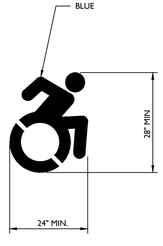
BREAKAWAY SIGN POST DETAIL

NOT TO SCALE | MCCM-SITE-SIGN-6102 | 07/01/19



ACCESSIBLE PARKING LINE STRIPE STALL DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-1801 | 07/01/19



STROKE WIDTH: MINIMUM/STANDARD = 3"

ACCESSIBLE SYMBOL DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-2000 | 07/01/19



30" x 30"

COLORS:
LEGEND = WHITE (RETROREFLECTIVE)
BACKGROUND = RED (RETROREFLECTIVE)

R1-1 SIGN DETAIL

NOT TO SCALE | MCCM-SIGN-REGU-R1-1 | 12/01/20



24" x 30"

COLORS:
LEGEND = RED (RETROREFLECTIVE)
BACKGROUND = WHITE (RETROREFLECTIVE)

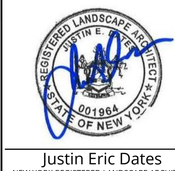
R8-3a SIGN DETAIL

NOT TO SCALE | MCCM-SIGN-REGU-R8-3A | 01/01/23

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REV	DATE	DRAWN BY	DESCRIPTION



Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

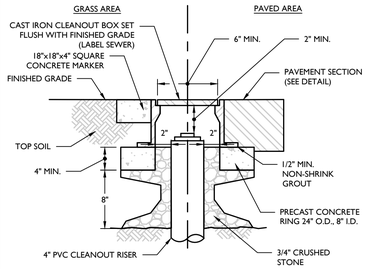
PROJECT NUMBER:	DRAWING NAME:
23010468A	C-DTLS

SHEET TITLE:
CONSTRUCTION DETAILS

SHEET NUMBER:
13 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

\\Archdata\...\23310468A\DTLS.dwg|C-13 DETAILS By: KYLE.SHALLOW

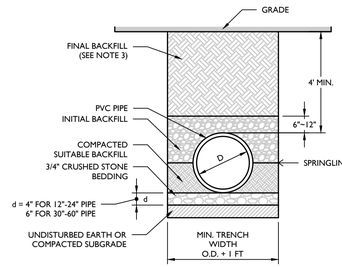


NOTES

1. ALL PVC CLEANOUTS TO HAVE CAST IRON FRAME AND COVER PROTECTION BOX. DESIGN FOR H20 LOADING.

CLEANOUT PROTECTION BOX DETAIL

NOT TO SCALE | MCNY-UTIL-SSWR-1600 | 07/01/19

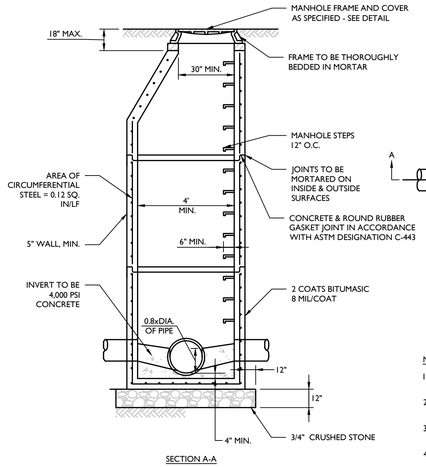


NOTES:

1. ALL PVC GRAVITY PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321.
2. GRAVITY SANITARY PIPE SHALL BE PVC SDR 35 PER ASTM D3034 OR AS REQUIRED BY THE GOVERNING AUTHORITY.
3. INITIAL & FINAL BACKFILL MATERIAL SHALL BE SITE SOILS FREE OF LARGE STONES. CLEAN FILL OR ITEM 4.

PVC SANITARY PIPE BEDDING (GRAVITY) DETAIL

NOT TO SCALE | MCNY-UTIL-SSWR-2803 | 07/01/19

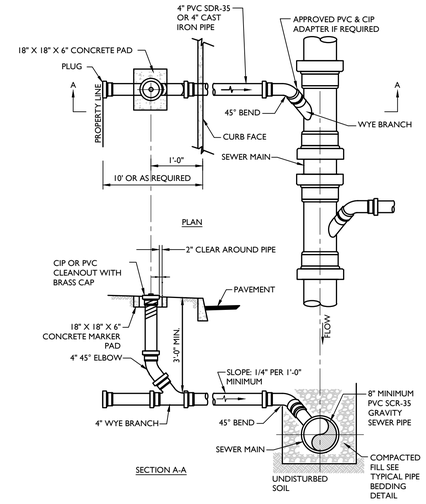


NOTES:

1. PRECAST MANHOLE SECTIONS TO BE IN ACCORDANCE WITH ASTM C-478, 4,000 PSI CONCRETE.
2. FLEXIBLE RUBBER BOOT SHALL BE USED FOR CONNECTION OF PVC PIPE TO MANHOLE. LINK SEAL OR APPROVED EQUAL.
3. PRECAST CHANNELS SHALL NOT BE USED FOR BENDS GREATER THAN 45°. POURED CONCRETE LONG RADIUS CHANNELS SHALL BE CONSTRUCTED.
4. MANHOLE TO BE CAPABLE OF H20 LOADING.

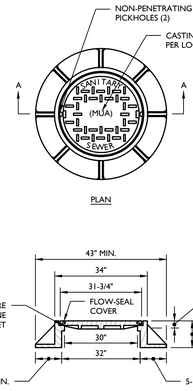
SANITARY PRECAST MANHOLE DETAIL

NOT TO SCALE | MCNY-UTIL-SSWR-1000 | 07/01/19



SANITARY SEWER LATERAL & CLEANOUT DETAIL

NOT TO SCALE | MCNY-UTIL-SSWR-1601 | 07/01/19

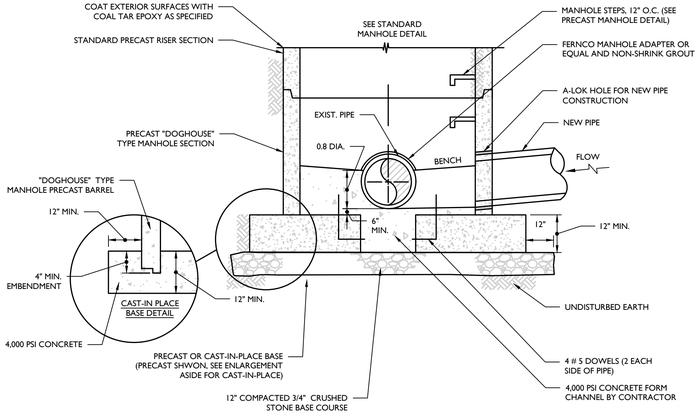


NOTES:

1. MANHOLE FRAME AND COVER SHALL BE CAMPBELL FOUNDRY PATTERN # **1012B** WITH FLOW-SEAL COVER OR APPROVED EQUAL OR AS OTHERWISE REQUIRED BY JURISDICTIONAL AUTHORITY.
2. MANHOLE FRAME AND COVER TO BE HEAVY DUTY, CONFORMING TO ASTM SPECIFICATION A-48 CLASS 30-B WITH SHOP COAT OF ASPHALTIC PITCH.
3. IN EASEMENTS AND REMOTE AREAS, COVER LOCKING DEVICES OF BRONZE AND KEY SHALL BE PROVIDED.
4. WATERTIGHT MANHOLE FRAME AND COVER SHALL BE PATTERN # **6548** AS MANUFACTURED BY CAMPBELL FOUNDRY COMPANY OR APPROVED EQUAL.

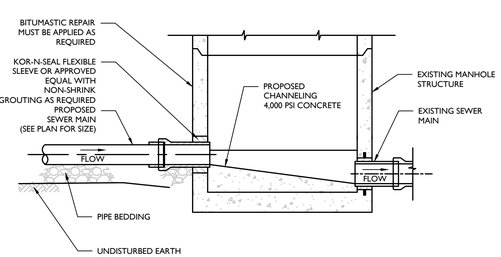
SANITARY MANHOLE FRAME AND COVER DETAIL

NOT TO SCALE | MCNY-UTIL-SSWR-1001 | 07/01/19



DOGHOUSE MANHOLE DETAIL

NOT TO SCALE | MCNY-UTIL-SSWR-1100 | 07/01/19



NOTES:

1. CONSTRUCTION OF THE NEW SEWER MAIN SHALL NOT IMPEDE THE OPERATION OF THE EXISTING SEWER.
2. WHERE NEW PIPE IS TO BE CONNECTED INTO AN EXISTING MANHOLE, THE CONTRACTOR SHALL CORE DRILL ALL HOLES INTO MANHOLE AND SHALL PERFORM ALL CUTTING AND PATCHING NECESSARY FOR CHANNEL AND BENCH RECONSTRUCTION TO CHANNEL FLOW INTO EXISTING SEWER.
3. PIPE SHALL BE SEALED USING KOR-N-SEAL MANHOLE ADAPTERS OR APPROVED EQUAL, AND NON-SHRINK GROUT.
4. EXISTING BENCH SHALL BE CHIPPED AND CUT AWAY TO ALLOW FOR NEW CHANNEL TO BE CONSTRUCTED AND TO PROVIDE GOOD, SOUND SURFACE FOR BONDING WITH NEW CONCRETE CHANNEL AND BENCH. REMOVE ALL LOOSE MATERIALS AND CLEAN INSIDE OF THE STRUCTURE.
5. THE CONCRETE USED TO CONSTRUCT BENCHES AND CHANNELS SHALL BE 4,000 PSI CONCRETE APPLY EPOXY BONDING AGENT PRIOR TO POURING CONCRETE.
6. ANY DAMAGE TO THE EXISTING MANHOLE CAUSED BY THE CONSTRUCTION OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR.

CONNECTION TO EXISTING MANHOLE DETAIL

NOT TO SCALE | MCNY-UTIL-SSWR-2000 | 07/01/19

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\\Archdata\...\23384C-DTLS.dwg|C-14 DETAILS By, KYLE.SHALLOW

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REV	DATE	DRAWN BY	DESCRIPTION

REGISTERED LANDSCAPE ARCHITECT — JUSTIN E. DATES — STATE OF NEW YORK — 001964

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER:	DRAWING NAME:
23010468A	C-DTLS

SHEET TITLE:
CONSTRUCTION DETAILS

SHEET NUMBER:
14 of 18

WATER NOTES:

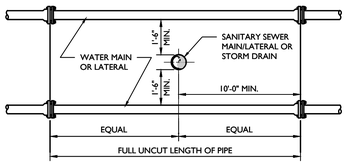
1. ALL METHODS, MATERIALS, FITTINGS, DEVICES, DIMENSIONAL REQUIREMENTS AND PROCEDURES NECESSARY TO COMPLETE THE WORK SHOWN HEREON SHALL MEET THE APPROPRIATE CURRENT AWWA SPECIFICATIONS IN EFFECT AS WELL AS ALL REQUIREMENTS DEEMED APPLICABLE BY THE MUNICIPALITY OR ANY OTHER GOVERNMENTAL BODY HAVING JURISDICTION OVER SAID WORK.
2. ALL WATER MAIN PIPE SHALL BE HIGH DENSITY POLYETHYLENE, 10"OR 4" HDPE DR-11.
3. ALL PIPE FITTINGS SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF THE AWWA SPECIFICATION C153/A21.53-00.
4. ALL GATE VALVES SHALL BE "MUELLER" OR APPROVED EQUAL, RESILIANT-SEATED GATE VALVES WITH MECHANICAL JOINT CONNECTIONS. OPENING SHALL BE LEFT (CCW) AND OPERATION SHALL BE BY 2" SQUARE WRENCH NUT. MINIMUM WORKING PRESSURE SHALL BE 250 PSI. GATE VALVES ARE TO BE IN ACCORDANCE WITH LATEST REVISION OF AWWA SPECIFICATION C509.
5. ALL VALVE BOXES SHALL BE EXTENSION TYPE BY MUELLER SET ON BRICKS AND POSITIONED PERPENDICULAR TO THE PIPE AND ON COMPACTED BACKFILL.
6. ALL CHANGES IN PIPE LINE DIRECTION, BOTH HORIZONTAL AND VERTICAL SHALL BE TIE-RODDED AND THRUST BLOCKED WITH CONCRETE AGAINST UNDISTURBED EARTH AS DIRECTED BY THE ENGINEER.
7. FLUSH OUT ALL WATER MAINS AND APPURTENANCES AS DIRECTED BY THE MUNICIPALITY UNTIL THE WATER RUNS CLEAN AND FREE OF RUST AND DIRT. PRESSURIZE ALL LINES AND APPURTENANCES FOR FORTY-EIGHT (48) HOURS, OR AS DIRECTED BY THE MUNICIPALITY, TO REVEAL ANY LEAKS OR BROKEN PIPE. THIS SHALL ALL BE DONE EITHER AS A TOTAL PROJECT OR BETWEEN VALVED SECTIONS AS DIRECTED BY THE TOWN. IF PRESSURE TESTING REVEALS ANY LEAKS OR DIFFICULTIES THE CONTRACTOR SHALL PROMPTLY UNCOVER THE LEAK OR BROKEN PIPE AND IMMEDIATELY REPAIR AND RETEST SAME. THIS SHALL BE REPEATED AS MANY TIMES AS MAY BE REQUIRED TO DEMONSTRATE A TIGHT LINE TO THE SATISFACTION OF THE TOWN. THE NEW WATER MAIN AND APPURTENANANCES SHALL BE PRESSURE TESTED IN ACCORDANCE WITH THE LATEST REVISION OF AWWA C-600. RESULTS OF TESTS ARE TO BE SUBMITTED AND ACCEPTED BY THE MUNICIPALITY.
8. THE MUNICIPAL ENGINEER MUST BE NOTIFIED FORTY-EIGHT (48) HOURS PRIOR TO PRESSURE TESTING.
9. ALL WATER LINES AND APPURTENANCES SHALL BE DISINFECTED TO THE SATISFACTION OF THE MUNICIPALITY, AND IN ACCORDANCE WITH THE STANDARDS OF THE OCDOH. THIS SHALL ALSO BE DONE IN ACCORDANCE WITH THE LATEST REVISION OF AWWA C651. A MINIMUM OF TWO (2) BACTERIAL TESTS TAKEN TWENTY-FOUR (24) HOURS APART ARE REQUIRED. RESULTS OF TESTS ARE TO BE SUBMITTED AND ACCEPTED BY THE MUNICIPALITY.
   AS PER AWWA C651, LATEST REVISION, WATER MAIN DISINFECTION PROCEDURE SHALL, GENERALLY, BE AS FOLLOWS, EXCLUDING THE TABLET METHOD:
   A. INSPECTING MATERIALS TO BE USED TO ENSURE THEIR INTEGRITY.
   B. PREVENTING CONTAMINATING MATERIALS FROM ENTERING THE WATER MAIN DURING STORAGE, CONSTRUCTION, OR REPAIR AND NOTING POTENTIAL CONTAMINATION AT THE CONSTRUCTION SITE.
   C. REMOVING, BY FLUSHING OR OTHER MEANS, THOSE MATERIALS THAT MAY HAVE ENTERED THE WATER MAIN.
   D. CHLORINATING ANY RESIDUAL CONTAMINATION THAT MAY REMAIN, AND FLUSHING THE CHLORINATED WATER FROM THE MAIN.
   E. PROTECTING THE EXISTING DISTRIBUTION SYSTEM FROM BACKFLOW CAUSED BY HYDROSTATIC PRESSURE TEST AND DISINFECTION PROCEDURES.
   F. DOCUMENTING THAT AN ADEQUATE LEVEL OF CHLORINE CONTACTED EACH PIPE TO PROVIDE DISINFECTION.
   G. DETERMINING THE BACTERIOLOGICAL QUALITY BY LABORATORY TEST AFTER DISINFECTION.
   H. FINAL CONNECTION OF THE APPROVED NEW WATER SERVICE TO THE ACTIVE DISTRIBUTION SYSTEM.

   THE CONTINUOUS-FEED METHOD SHALL BE IMPLEMENTED FOR CHLORINATION, AS DESCRIBED IN AWWA C651, LATEST REVISION. AFTER CHLORINATION, THE CONTRACTOR SHALL FLUSH THE MAINS AS PER FINAL FLUSHING REQUIREMENTS OF AWWA C651, LATEST REVISION. WHEN CUTTING INTO OR REPAIRING AN EXISTING MAIN, DISINFECTION PROCEDURES SHALL BE OBSERVED AS DETAILED IN DISINFECTION PROCEDURES WHEN CUTTING INTO OR REPAIRING EXISTING MAINS OF AWWA C651, LATEST REVISION.

   VERIFICATION SHALL BE ACCOMPLISHED VIA BACTERIOLOGICAL TESTS. AFTER FINAL FLUSHING AND BEFORE THE NEW WATER MAIN IS CONNECTED TO THE DISTRIBUTION SYSTEM, TWO CONSECUTIVE SETS OF ACCEPTABLE SAMPLES, TAKEN AT LEAST 24 HR APART, SHALL BE COLLECTED FROM THE NEW MAIN. AT LEAST ONE SET OF SAMPLES SHALL BE COLLECTED FROM EVERY 1,200 FT OF THE NEW WATER MAIN, PLUS ONE SET FROM THE END OF THE LINE AND AT LEAST ONE SET FROM EACH BRANCH. SAMPLES SHALL BE TESTED FOR BACTERIOLOGICAL (CHEMICAL AND PHYSICAL) QUALITY IN ACCORDANCE WITH STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, AND SHALL SHOW THE ABSENCE OF COLIFORM ORGANISMS AND THE PRESENCE OF A CHLORINE RESIDUAL. SAMPLES FOR BACTERIOLOGICAL ANALYSIS SHALL BE COLLECTED IN STERILE BOTTLES TREATED WITH SODIUM THIOSULFATE, AS REQUIRED BY STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER. NO HOSE OR FIRE HYDRANT SHALL BE USED IN THE COLLECTION OF SAMPLES. THERE SHOULD BE NO WATER IN THE TRENCH UP TO THE CONNECTION FOR SAMPLING. THE SAMPLING PIPE MUST BE DEDICATED AND CLEAN AND DISINFECTED AND FLUSHED PRIOR TO SAMPLING. A CORPORATION COCK MAY BE INSTALLED IN THE MAIN WITH A COPPER-TUBE GOOSENECK ASSEMBLY. AFTER SAMPLES HAVE BEEN COLLECTED, THE GOOSENECK ASSEMBLY MAY BE REMOVED AND RETAINED FOR FUTURE USE. IF SAMPLES RESULTS FROM THE LAB INDICATE A MEASURED HPC GREATER THAN 500 COLONY-FORMING UNITS (CFU) PER ML, FLUSHING SHOULD BE RESUMED AND ANOTHER COLIFORM AND HPC SET OF SAMPLES SHOULD BE TAKEN UNTIL NO COLIFORMS ARE PRESENT AND THE HPC IS LESS THAN 500 CFU/ML. THE RECORD OF COMPLIANCE SHALL BE THE BACTERIOLOGICAL TEST RESULTS CERTIFYING THAT THE WATER SAMPLED FROM THE NEW WATER MAIN IS FREE OF COLIFORM BACTERIA CONTAMINATION AND IS EQUAL TO OR BETTER THAN THE BACTERIOLOGIC WATER QUALITY IN THE DISTRIBUTION SYSTEM.

   ALL OTHER REQUIREMENTS OF AWWA C651, LATEST REVISION, SHALL BE OBSERVED.

10. WATER SERVICE SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWER MAIN OR SERVICE.
11. ALL WATER MAINS SHOULD BE SEPARATED FROM SANITARY SEWER LINES BY A MINIMUM HORIZONTAL DISTANCE OF 10 FEET. IF SUCH HORIZONTAL SEPARATION IS NOT POSSIBLE, THE WATER AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (STEP TRENCHES ARE PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN ENCASED IN CONCRETE OR WITH SUCH SEPARATION EXPRESSLY APPROVED BY THE ORANGE COUNTY DEPARTMENT OF HEALTH.
12. AT THE CROSSINGS OF SEWER LINES AND WATER MAINS, THE TOP OF THE SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE WATER LINE SHALL BE ENCASED IN CONCRETE.
13. WATER TIGHT PLUGS ARE TO BE INSTALLED IN THE ENDS OF PIPES WHEN WORK IS NOT IN PROGRESS.
14. LEAKAGE AND HYDROSTATIC PRESSURE TESTING SHALL BE PERFORMED AT 1.5 TIMES THE WORKING PRESSURE.
15. THE MAXIMUM DEFLECTION ALLOWED ALLOWED AT PIPE JOINTS SHALL BE LIMITED TO 80% OF THAT ALLOWED BY AWWA OR IN ACCORDANCE WITH THE MUNICIPALITY. FOR AWWA ALLOWABLE JOINT DEFLECTIONS SEE LATEST REVISION OF AWWA SPECIFICATION C600.
16. CONSTRUCTION MUST CONFORM TO ALL ORDINANCES.
17. CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING WATER AND OTHER UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
18. CONTRACTOR TO CALL UNDERGROUND MARK-OUT PRIOR TO COMMENCEMENT OF CONSTRUCTION AT 1-800-962-7962 FOR COMPLETE UTILITIES MARK-OUT.
19. CONTRACTOR TO CONTACT MUNICIPAL WATER DEPARTMENT AT LEAST 2 DAYS PRIOR TO CONSTRUCTION.
20. ALL IMPROVEMENTS SHALL BE INSPECTED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK AND CERTIFICATION SHALL BE PROVIDED TO THE MUNICIPALITY THAT THE SUBJECT IMPROVEMENTS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS.
21. CONTRACTOR TO NOTIFY ENGINEER OF ANY DEVIATION FROM THE HORIZONTAL OR VERTICAL ALIGNMENTS WITH REGARDS TO EXISTING UTILITIES.
22. ANY BACKFLOW PREVENTION DEVICE(S) DETERMINED TO BE REQUIRED BY THE WATER SUPPLIER WILL BE DESIGNED BY OTHERS IN ACCORDANCE WITH OCDOH REQUIREMENTS AND THAT APPLICATION FOR ANY SUCH BACKFLOW PREVENTION DEVICE SHALL BE SUBMITTED TO THE OCDOH FOR REVIEW AND APPROVAL UNDER SEPARATE COVER.
23. A CERTIFIED AS-BUILT MAP OF THE WATER SYSTEM IMPROVEMENTS SHALL BE PROVIDED TO THE MUNICIPALITY'S WATER DEPARTMENT BY A LICENSED DESIGN PROFESSIONAL.

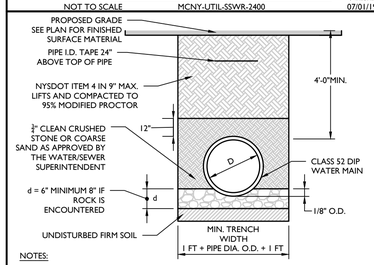


NOTE :
1. NO DEVIATION IN THE SEPARATION REQUIREMENTS WILL BE PERMITTED WITHOUT THE EXPRESS APPROVAL OF THE ENGINEER.

SANITARY/STORM SEWER-WATER MAIN SEPARATION DETAIL

MOD: 04/23/21

NOT TO SCALE MCNY-UTIL-SSWR-2400 07/01/19



NOTES:
1. ALL PIPE SYSTEMS AND BACKFILL SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C600.
2. WATER MAIN PIPE SHALL BE CEMENT LINED DUCTILE IRON PIPE (DIP) PRESSURE CLASS 150, THICKNESS CLASS 52 WITH ASPHALTIC EPOXY TYPE COATING & TYTON JOINTS.
3. MAXIMUM ALLOWABLE DEFLECTION AT PIPE JOINTS SHALL BE LIMITED TO 80% OF THE VALUES PUBLISHED IN AWWA C600, LATEST REVISION.
4. IF ROCK IS ENCOUNTERED, THE EXCAVATION SHALL BE CARRIED 8" BELOW THE BOTTOM OF THE PIPE.

DIP WATER PIPE BEDDING DETAIL

MOD: 07/28/21

NOT TO SCALE MCNY-UTIL-WATR-1900 07/01/19

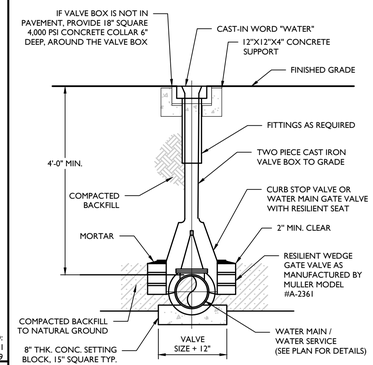
NUMBER AND SIZE OF RODS REQUIRED AND PIPE LENGTH IN FEET TO BE RESTRAINED									
PIPE SIZE IN INCHES	90° TEE OR DEAD END PLUG			45° BEND			22½° BEND		
	No.	SIZE	L*	No.	SIZE	L*	No.	SIZE	L*
4	2	¾"	28'	2	¾"	6'	2	¾"	3'
6	2	¾"	40'	2	¾"	8'	2	¾"	4'
8	4 or 2	¾" or ⅞"	52'	2	¾"	10'	2	¾"	5'
10	4	⅞"	63'	2	¾"	12'	2	¾"	6'
12	4	⅞"	74'	2	¾"	14'	2	¾"	7'
14	4	1"	86'	2	¾"	16'	2	¾"	8'
16	4	1"	96'	2	¾"	18'	2	¾"	9'

L* = LENGTH OF PIPE TO BE RESTRAINED IS FOR EACH SIDE OF BEND

NOTES:
1. USE OF MECHANICAL JOINT RETAINER GLANDS SHALL PROVIDE A THRUST RESTRAINT SYSTEM EQUIVALENT TO THAT LISTED IN THE TABLE FOR CLAMPS AND RODS.
2. LENGTHS ARE BASED ON THE FOLLOWING CRITERIA: 150 PSI MAXIMUM PRESSURE AND 4'-6" OF COVER. TABLE IS FOR USE WITH HDPE OR PVC PIPE ONLY. IF TEST CONDITIONS ARE MORE SEVERE OR LARGER PIPES ARE PROPOSED, THEN SPECIAL COMPUTATIONS MUST BE PROVIDED BY LICENSED PROFESSIONAL ENGINEER.

JOINT RESTRAINT SCHEDULE DETAIL

NOT TO SCALE HDPE .PVP JOINT RESTRAINT 03/23/23

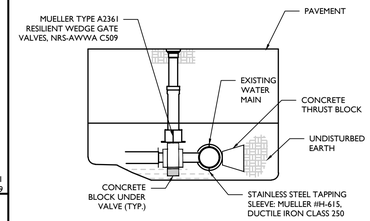


NOTES:
1. ALL VALVES TO INCLUDE MEGA-LUG RETAINER GLANDS AND BE RODDED BACK TO THE ADJACENT TEE IN THE WATER MAIN. INLINE VALVES NEED NOT BE RODDED. CONTRACTOR TO UTILIZE ¾" ON CENTER GALVANIZED STEEL RODS WITH MALLEABLE IRON NUTS AT 108" SPACING.
2. WATER MAIN VALVES FOR FOUR INCH THROUGH FOURT-EIGHT INCH SHALL BE RESILIENT WEDGE GATE VALVES AS MANUFACTURED BY MULLER, MODEL #A-2361. VALVES SHALL BE PROVIDED WITH AN EXTENSION SERVICE BOX TO GRADE.
3. MAIN LINE VALVES TO BE SPACED NO FURTHER THAN 500' APART IN COMMERCIAL DISTRICTS AND 800' IN OTHER DISTRICTS.

WATER VALVE BOX DETAIL

MOD: 09/09/22

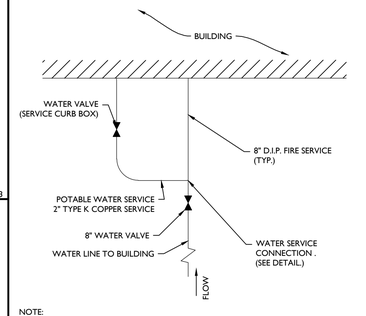
NOT TO SCALE MCNY-UTIL-WATR-1600 07/01/19



NOTES:
1. MEGA LUGS TO BE USED ON ALL MECHANICAL JOINT FITTINGS.
2. MULLER STAINLESS STEEL, MECHANICAL JOINT TAPPING SLEEVE MODEL #H-615 AND VALVE, MODEL A2361 IS TO BE USED IN ALL CASES, ALL HARDWARE INCLUDING, BUT NOT LIMITED TO NUTS, BOLTS, ECT SHALL BE STAINLESS STEEL.
3. CONCRETE BLOCK SHALL BE UNDER VALVE.

WET TAP DETAIL

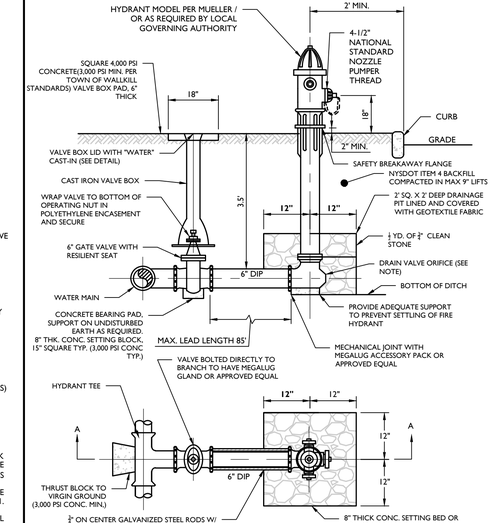
NOT TO SCALE WET TAP 07/01/19



NOTE:
VALVING MUST BE ARRANGED SO THAT POTABLE WATER IS TERMINATED IF FIRE PROTECTION LINE IS TURNED OFF

FIRE PROTECTION & SERVICE CONNECTION TO BUILDING DETAIL

NOT TO SCALE

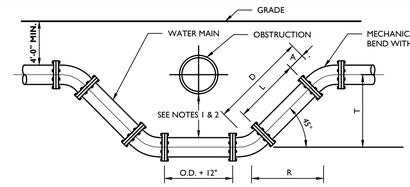


NOTES:
1. HYDRANT SHALL BE MUELLER SUPER CENTURION MODEL A-423 INCLUDING INTEGRAL MULLER "STORZ" CONNECTION ON THE NOZZLE. DESIGN WITH THE FOLLOWING SPECIFICATIONS.
   A. SAFETY COUPLED STANDPIPE.
   B. 6" MECHANICAL JOINT INLET CONNECTION
   C. TWO 2-1/2" NATIONAL STANDARD THREAD HOSE NOZZLES.
   ONE 4-1/2" NATIONAL STANDARD THREAD STEAMER NOZZLE, FACING THE ROAD.
   D. HYDRANT OPERATORS AND HYDRANT NOZZLE CAP NUTS SHALL BE IN ACCORDANCE WITH AWWA/ANSI STANDARD C502.
   E. HYDRANT HOSE CAPS SHALL BE ATTACHED BY MEANS OF CHAINS.
   F. HYDRANT BARRELS SHALL BE PAINTED - RED, BONNETS - YELLOW, AND NOZZLE CAPS - - BLACK TO INDICATE THE AVAILABLE FIRE FLOW OR AS IN ACCORDANCE WITH THE LOCAL REQUIREMENTS.
   G. HYDRANTS SHALL OPEN COUNTER CLOCKWISE.
2. STANDPIPE (BREAK-AWAY) COUPLING SHALL NOT EXCEED A MAXIMUM OF 2 INCHES FROM THE TOP OF THE CURB TO THE BOTTOM OF COUPLING.
3. THE DRAIN VALVE SHALL BE CLEAR OF ANY OBSTRUCTIONS, AND 3/4" CLEAN GRAVEL BE PLACED FROM THE BOTTOM OF THE HYDRANT TO A POINT 6" ABOVE THE HYDRANT LATERAL PIPE.
4. THRUST BLOCKS SHALL BE MADE OF 4,000 PSI CONCRETE, PROVIDED BEHIND THE HYDRANT SHOE.
5. BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH THE LOCAL JURISDICTION.
6. GATE VALVE SHALL BE T.W.W. 6" U.S. PIPE METROSEAL 250 R/S (RESILIENT SEALED) MECHANICAL JOINT END (RIGHT HAND).
7. WATER LATERAL SHALL BE 6" DUCTILE IRON CEMENT LINED CLASS 52 PIPE.
8. TIE ROD SHALL BE 3/4" DIAMETER TIE ROD WITH EYE BOLTS - TWO REQUIRED (SIDE VIEW SHOWN). RESTRAIN ALL JOINTS ON HYDRANT TEE, VALVE, AND HYDRANT LEAD.
9. HYDRANT TEE SHALL BE U.S. PIPE CATALOG #U.592 TRIM.TYTE DUCTILE IRON, MECHANICAL JOINT OR AN T.W.W. APPROVED SUBSTITUTE.
10. HYDRANT SPACING MAY RANGE FROM 350' TO A MAX OF 600'
11. HYDRANTS SHALL BE DRY-BARREL HYDRANTS, TYPE MULLER SUPER CENTURION IN ACCORDANCE WITH AWWA C502. HYDRANTS SHALL HAVE A MAIN VALVE SIZE OPENING OF 5" NOMINAL, ONE FOUR-AND ONE-HALF INCH NST PUMPER NOZZLE TWO TWO-AND ONE-HALF-INCH NST HOSE NOZZLES, A ONE-AND-ONE-HALF-INCH PENTAGON OPERATING NUT AND A SIX-INCH MECHANICAL JOINT INLET SHOW CONNECTION WITH ACCESSORIES.
12. ALL TEES, VALVES AND FITTINGS TO INCLUDE RESTRAINT IN THE FORM OF MEGA-LUG RETAINER GLANDS AND RODS.
13. WHEN HIGH GROUND WATER IS ENCOUNTERED WITHIN 2 FEET OF THE HYDRANT BOWL, THE WEEP HOLE IS TO REMAIN PLUGGED AND APPROPRIATELY WORDED SIGNAGE SHALL BE PERMANENTLY SECURED TO THE HYDRANT SPECIFYING THAT THE HYDRANT IS TO BE PUMPED DRY AFTER USE TO PREVENT DAMAGE DUE TO FREEZING TEMPERATURES.

FIRE HYDRANT (VALVE IN GRASS) DETAIL

MOD: 01/09/23

NOT TO SCALE MCNY-UTIL-WATR-1000 07/01/19



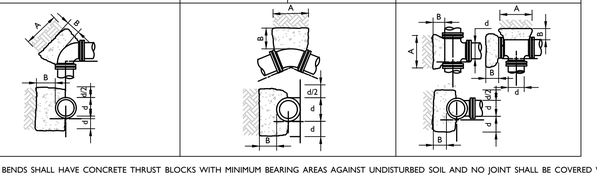
MECHANICAL JOINTS			
ANGLE	D =	R =	L =
45°	T x 1.414	T x 1.000	D-2A
22.5°	T x 2.613	T x 2.414	D-2A
11.25°	T x 5.126	T x 5.027	D-2A

NOTES:
1. WATER MAIN MAY CROSS ABOVE OBSTRUCTION IF **4'-0"** MINIMUM COVER IS MAINTAINED ABOVE THE WATER MAIN AND FINISH GRADE.
2. MINIMUM VERTICAL SEPARATION BETWEEN SANITARY OR STORM SEWER TO WATER MAIN SHALL BE 18" IF THE HORIZONTAL SEPARATION IS LESS THAN 10'. BETWEEN WATER MAIN AND OTHER UTILITIES, THE MINIMUM VERTICAL SEPARATION SHALL BE 12".
3. WATER MAIN SHALL BE SIZE AND MATERIAL SPECIFIED ON THE PLAN, WITH MECHANICAL JOINT OR PUSH-ON AND ALL FITTINGS BE CAST IRON MECHANICALLY JOINT.
4. OFFSETS MAY BE SUBSTITUTED FOR A "T" OF UP TO 24" IF APPROVED BY THE ENGINEER.
5. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS OR OTHER POINTS OF PIPE DIRECTION CHANGE.
6. TIE RODS SHALL BE UTILIZED TO RESTRAIN PIPE JOINTS IF THRUST BLOCK IS NOT USED. DETAILS OF THE TIE ROD ASSEMBLY SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. TIE RODS SHALL BE SUFFICIENT TO RESTRAIN THE THRUST DEVELOPED AT 100 PSI WORKING PRESSURE. MEGALUG RESTRAINT ALSO ACCEPTABLE IN PLACE OF TIE RODS.

WATER CROSSING UNDER UTILITY DETAIL

NOT TO SCALE MCNY-UTIL-WATR-1300 07/01/19

d	A	B	A	B	A	B	A	B
6"	30"	24"	24"	18"	18"	12"	27"	21"
8"	42"	30"	30"	24"	24"	18"	36"	27"
12"	66"	42"	45"	33"	33"	24"	48"	42"
16"	84"	48"	51"	39"	39"	30"	60"	48"
24"	102"	75"	78"	60"	60"	39"	108"	108"
30"	136"	84"	97"	64"	71"	44"	112"	120"
90° BENDS			45° BEND		22½° & 11¼° BENDS		TEE & PLUG	



NOTES:
1. ALL HORIZONTAL BENDS SHALL HAVE CONCRETE THRUST BLOCKS WITH MINIMUM BEARING AREAS AGAINST UNDISTURBED SOIL AND NO JOINT SHALL BE COVERED WITH CONCRETE.
2. TWO FORMS OF RESTRAINTS ARE REQUIRED ON ALL BENDS, OFFSETS, DEAD ENDS AND/ OR TEMPORARY DEAD ENDS FOR FUTURE EXPANSION. HYDRANTS WILL REQUIRE HYDRANTS WILL REQUIRE ADDITIONAL RESTRAINTS IN ACCORDANCE WITH "TYPICAL FIRE HYDRANT ASSEMBLY" DETAIL.
3. RESTRAINTS APPROVED FOR USE ARE THRUST BLOCKS, MEGA LUG RETAINER, GLANDS, TIE RODS AND FIELD LOCK GASKETS.
4. BEARING AREAS ARE BASED UPON UNDISTURBED SOIL WITH A MINIMUM BEARING CAPACITY OF 0.5 TONS PER SQUARE FOOT. FOR A LESSER SOIL BEARING CAPACITY THESE AREAS SHALL BE INCREASED ACCORDINGLY.
5. THRUST BLOCKS SHALL BE POURED DIRECTLY AGAINST TRENCH WALLS AND SHALL BE 4,000 PSI CONCRETE (3,000 PSI MIN.).
6. DETAILS FOR SUPPORTS AND BRACING FOR VERTICAL BENDS FOR 12" DIAMETER OR LARGER SHALL BE APPROVED BY THE AUTHORITY PRIOR TO CONSTRUCTION.

THRUST BLOCKS DETAIL

NOT TO SCALE MCNY-UTIL-WATR-1400 07/01/19

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Justin Eric Dates
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LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-DTLS

SHEET TITLE:
CONSTRUCTION DETAILS

SHEET NUMBER:
15 of 18

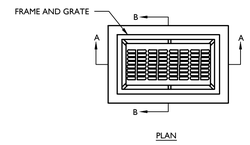
UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY MAPS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

\\APublish_2238\C-DTLS.dwg[C-15 DETAILS By: KYLE SHALLOW

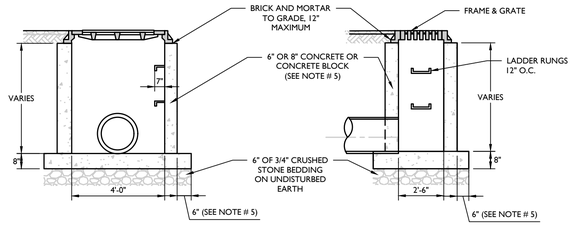
NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

NOTES:

1. INVERTS TO BE ELIMINATED IN BOTTOM OF TERMINAL INLETS. MINIMUM DIFFERENCE IN INVERTS TO BE 0.1 FEET
2. THIS INLET SHALL BE CONSTRUCTED OF PRECAST CONCRETE OR SOLID CONCRETE BLOCK. IF CONCRETE BLOCK IS USED, THE BOTTOM SHALL BE AS SHOWN FOR CONCRETE & THE OUTSIDE OF THE WALLS SHALL BE PLASTERED WITH 1/2" COAT OF 1:2 CEMENT SAND MORTAR, THE INSIDE WALLS JOINTS SHALL BE STRUCK AND POINTED.
3. PROVIDE 7/8" DIA. X 7" X 12", 12" O.C. COPOLYMER POLYPROPYLENE PLASTIC STEPS WITH 1/2" DIA. GRADE 60 STEEL REINFORCEMENT BY M.A. INDUSTRIES, PS2-PF OR PS2-B WITH PRECAST PRESS FIT INSERTS, 12" O.C.
4. INLET FRAME AND GRATES TO BE CAMPBELL FOUNDRY **# 3408** OR APPROVED EQUAL.
5. WHEN DEPTH IS GREATER THEN 12' THE WALLS SHOULD BE EITHER 8" THICK CONCRETE OR 8" SOLID CONCRETE BLOCK AND THE FOOTING SHALL BE EXTENDED TO 12" BEYOND THE OUTSIDE WALLS.
6. ALL CONCRETE TO BE 4,000 PSI.
7. IN ACID SOILS, TWO COATS OF BITUMASTIC WATER PROOFING SHALL BE APPLIED PER MANUFACTURER'S SPECIFICATION.
8. INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH H-20 LOADING REQUIREMENTS.



PLAN



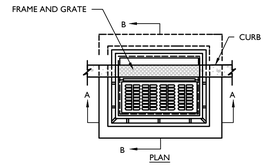
SECTION A-A SECTION B-B

SINGLE DRAIN INLET DETAIL

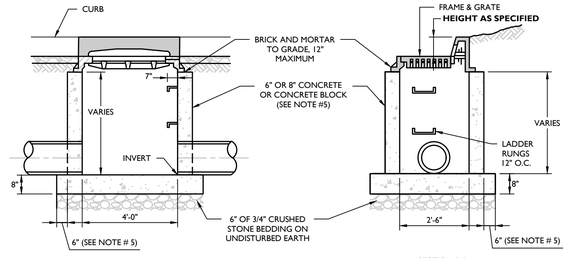
NOT TO SCALE MCNY-UTIL-STRM-1000 07/01/19

NOTES:

1. INVERTS TO BE ELIMINATED IN BOTTOM OF TERMINAL INLETS. MINIMUM DIFFERENCE IN INVERTS TO BE 0.1 FEET.
2. THIS INLET SHALL BE CONSTRUCTED OF PRECAST CONCRETE OR SOLID CONCRETE BLOCK. IF CONCRETE BLOCK IS USED, THE BOTTOM SHALL BE AS SHOWN FOR CONCRETE & THE OUTSIDE OF THE WALLS SHALL BE PLASTERED WITH 1/2" COAT OF 1:2 CEMENT SAND MORTAR. THE INSIDE WALL JOINTS SHALL BE STRUCK AND POINTED.
3. PROVIDE 7/8" DIA. X 7" X 12", 12" O.C. COPOLYMER POLYPROPYLENE PLASTIC STEPS WITH 1/2" DIA. GRADE 60 STEEL REINFORCEMENT BY M.A. INDUSTRIES, PS2-PF OR PS2-B WITH PRECAST PRESS FIT INSERTS, 12" O.C. OR APPROVED EQUIVALENT.
4. INLET FRAME AND GRATES TO BE CAMPBELL FOUNDRY **# 2617**, OR APPROVED EQUAL.
5. WHEN DEPTH IS GREATER THAN 12' THE WALLS SHOULD BE 8" THICK CONCRETE OR SOLID CONCRETE BLOCK AND THE FOOTING SHALL BE EXTENDED TO 12" BEYOND THE OUTSIDE WALLS.
6. ALL CONCRETE TO BE 4,000 PSI.
7. IN ACID SOILS, TWO COATS OF BITUMASTIC WATER PROOFING SHALL BE APPLIED PER MANUFACTURER'S SPECIFICATION.
8. INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH H-20 LOADING REQUIREMENTS.



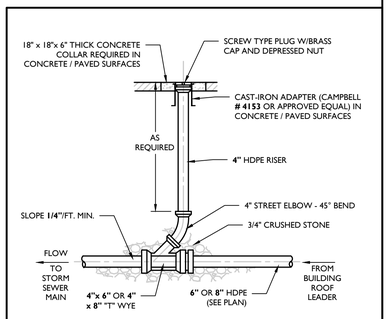
PLAN



SECTION A-A SECTION B-B

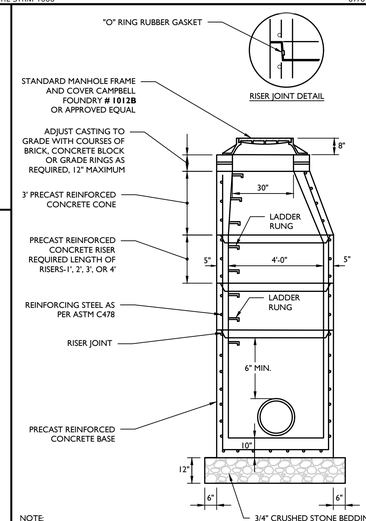
SINGLE CATCH BASIN DETAIL

NOT TO SCALE MCNY-UTIL-STRM-1100 07/01/19



ROOF LEADER CLEANOUT DETAIL

NOT TO SCALE MCNY-UTIL-STRM-1900 07/01/19

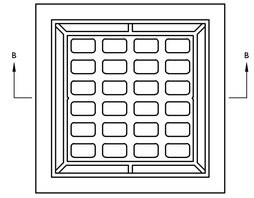


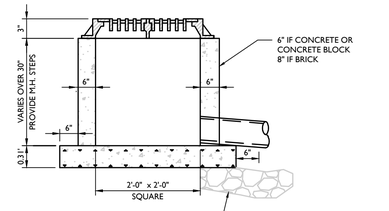
NOTE:

1. IN ACID SOILS, TWO COATS OF BITUMASTIC WATER PROOFING SHALL BE APPLIED PER MANUFACTURER'S SPECIFICATION.
2. ALL CONCRETE TO BE 4,000 PSI.

PRECAST CONCRETE STORM MANHOLE 4' DIA. DETAIL

NOT TO SCALE MCNY-UTIL-STRM-1600 07/01/19





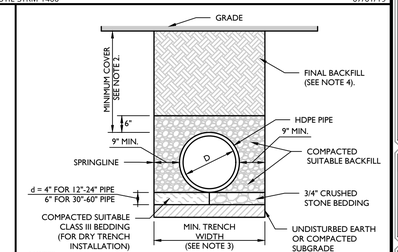
SECTION B-B

GENERAL CONSTRUCTION NOTES:

1. FOOTER TO BE CONCRETE.
2. INVERT TO BE 4000 PSI CONCRETE.
3. IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
4. FRAME AND GRATE TO BE **#3193** AS MANUFACTURED BY CAMPBELL FOUNDRY CO., OR APPROVED EQUAL.
5. PROVIDE 3/4" DIAMETER W.I. LADDER RUNGS, 12" O.C. (IF OVER 30" DEEP)
6. EXTERIOR OF ALL CONCRETE SHALL HAVE 2 COATS OF KOPPERS BITUMASTIC #5, OR EQUAL.
7. ALL WORK SHALL BE WATERTIGHT. NOT FOR USE IN PAVED AREAS.

YARD INLET DETAIL

NOT TO SCALE MCNY-UTIL-STRM-1400 07/01/19



NOTES:

1. ALL PIPE SYSTEMS AND BACKFILL SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321.
2. MINIMUM COVER FOR HDPE PIPES IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR UP TO 60" DIAMETER PIPE. PIPE COVER IS MEASURED FROM TOP OF PIPE TO THE BOTTOM OF FLEXIBLE PAVEMENT, OR TO THE TOP OF RIGID PAVEMENT, OR TO THE GROUND SURFACE.
3. MINIMUM TRENCH WIDTH PER MANUFACTURER'S RECOMMENDATIONS.
4. SUITABLE AND FINAL BACKFILL MATERIAL SHALL BE SITE SOILS FREE OF LARGE STONES. CLEAN FILL, OR ITEM 4.

HDPE STORM PIPE BEDDING DETAIL

NOT TO SCALE 07/01/19

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY MAPS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

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FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION



Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER:	DRAWING NAME:
23010468A	C-DTLS

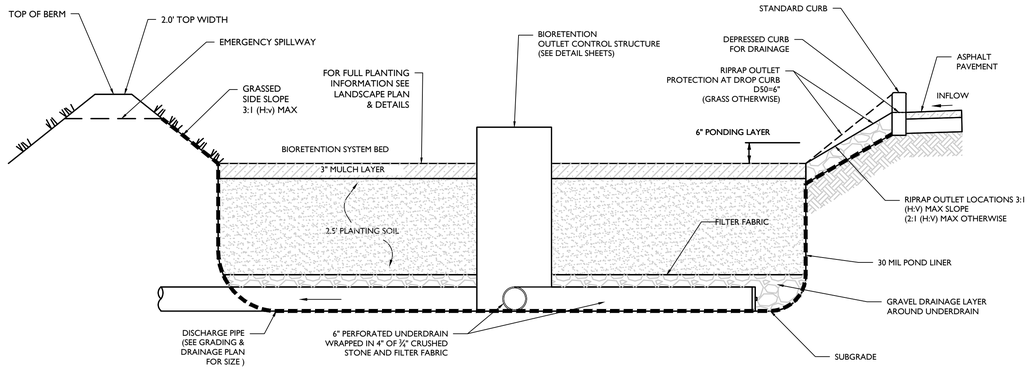
SHEET TITLE:
CONSTRUCTION DETAILS

SHEET NUMBER:
16 of 18

\\Publish-3238\C-DTLS-Dwg\C-16-DETAILS By: KYLE.SHALLOW

PLANTING SOIL NOTE:

THE PLANTING SOIL SHOULD BE A SANDY LOAM, LOAMY SAND, LOAM (USDA), OR A LOAM/SAND MIX (SHOULD CONTAIN A MINIMUM 35 TO 60% SAND, BY VOLUME). THE CLAY CONTENT FOR THESE SOILS SHOULD BE LESS THAN 25% BY VOLUME. SOILS SHOULD FALL WITHIN THE SM, OR ML CLASSIFICATIONS OD THE UNIFIED SOIL CLASSIFICATION SYSTEM (USCS). A PERMEABILITY OF AT LEAST 1.0 FEET PER DAY (0.5"/HR) IS REQUIRED (A CONSERVATIVE VALUE OF 0.5 FEET PER DAY IS USED FOR DESIGN). THE SOIL SHOULD BE FREE OF STONES, STUMPS, ROOTS, OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER, AND BRUSH OR SEED FROM NOXIOUS WEEDS. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN LIFTS OF 12" TO 18", LOOSELY COMPACTED (TAMPED LIGHTLY WITH A DOZER OR BACKHOE BUCKET). THE SPECIFIC CHARACTERISTICS ARE AS FOLLOWS:

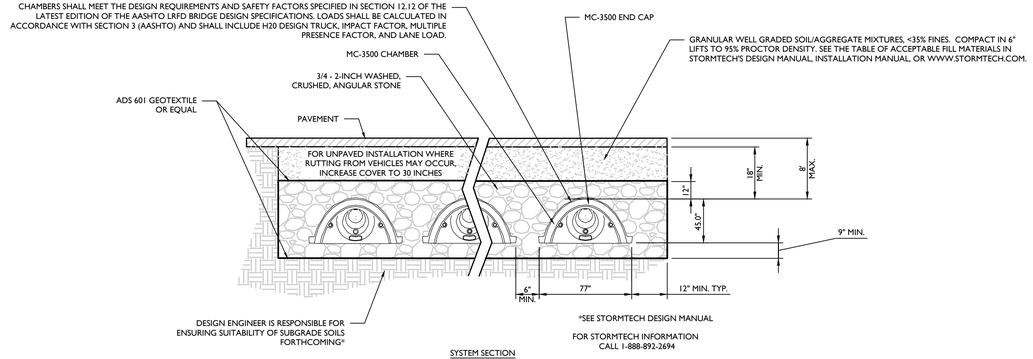


NOTES:

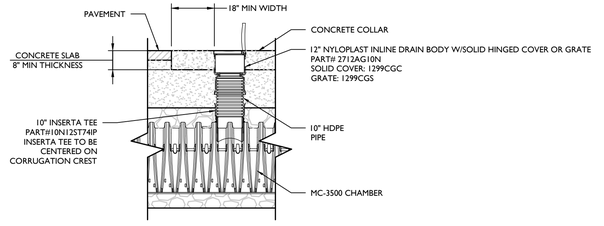
1. SEE PLAN FOR DROP CURB LOCATIONS AND BIORETENTION AREA CONFIGURATION.
2. PLANTING SOIL TO BE IN ACCORDANCE WITH NEW YORK STATE STANDARDS AND SPECIFICATIONS FOUND WITHIN THE PROJECT SWPPP.

BIORETENTION SYSTEM CROSS SECTION DETAIL

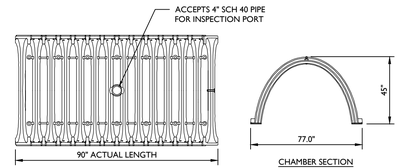
NOT TO SCALE | MCNY-UTIL-STMW-2400 | 07/01/19

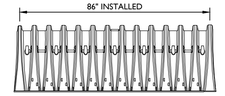


SYSTEM SECTION



STORMTECH STORM CHAMBER INSPECTION PORT DETAIL





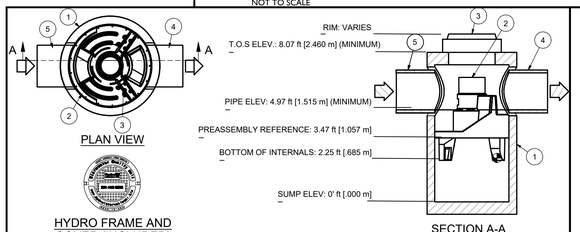
STORMTECH MC-3500 STORM CHAMBER DETAIL
N.T.S.

STORMTECH NOTES:

1. CHAMBERS SHALL BE STORMTECH MC-3500 OR APPROVED EQUAL.
2. CHAMBERS SHALL BE MADE FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT WOULD IMPEDE FLOW.
4. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
5. THE INSTALLATION OF CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST INSTALLATION INSTRUCTIONS.
6. THE STONE USED FOR FILLING THE SUBSURFACE SYSTEM MUST BE CLEAN WASHED STONE FREE OF ALL SEDIMENT, FINES, AND DUST. THE CONTRACTOR MAY BE REQUIRED TO WASH THE STONE ON SITE UNTIL IT IS CLEAN TO THE TOUCH LEAVING NO RESIDUE BEHIND PRIOR TO PLACEMENT IN THE SYSTEM FOOTPRINT.
7. THE PROPOSED SUBSURFACE STORMWATER SYSTEM BOTTOM MUST BE PROTECTED FROM STORM RUNOFF AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE INFILTRATION CAPACITY OF THE VIRGIN SOIL IS NOT COMPROMISED.
8. VEHICLE TRAFFIC MUST AVOID THE CHAMBER FOOTPRINT DURING CONSTRUCTION.
9. CONTRACTOR MUST SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW & APPROVAL.
10. END STONE TO BE 6" MIN. BEYOND END OF CHAMBER CAPS WITH 12" MIN. SIDE STONE TO PROVIDE MIN.

STORMTECH SUBSURFACE DETAIL

NOT TO SCALE | MCNY-UTIL-STMW-3500 | MOD: 01/20/21 07/01/19



PLAN VIEW

HYDRO FRAME AND COVER (INCLUDED)
GRADE RINGS BY OTHERS AS REQUIRED

NOTE: ADDITIONAL HEIGHT MAY BE REQUIRED DEPENDING ON PIPE SIZE

SECTION A-A

1. MANHOLE WALL AND SLAB THICKNESSES ARE NOT TO SCALE.
2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING FIRST DEFENSE MANHOLE.
3. CONTRACTOR TO CONFIRM RIM, PIPE INVERTS, PIPE DIA. AND PIPE ORIENTATION PRIOR TO RELEASE OF UNIT TO FABRICATION.

PRODUCT SPECIFICATION:

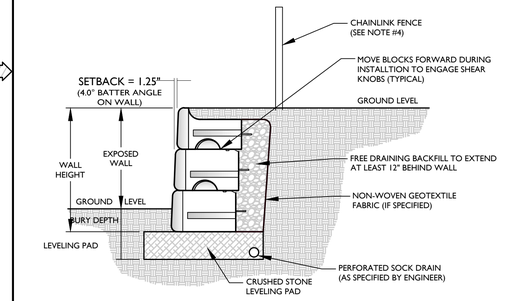
1. Peak Hydraulic Flow: 18.0 cfs (510 l/s)
2. Min Sediment Storage Capacity: 0.7 cu. yd. (0.5 cu. m.)
3. Maximum Inlet/Outlet Pipe Diameters: 24 in. (600 mm)
4. The Treatment System Shall Use An Induced Vortex To Separate Pollutants From Stormwater Runoff.
5. For More Product Information Including Regulatory Acceptances, Please Visit https://hydro-int.com/en/products/first-defense

GENERAL NOTES:
1. General Arrangement drawings only. Contact Hydro International for site specific drawings.
2. The diameter of the inlet and outlet pipes may be no more than 24".
3. Multiple inlet pipes possible (refer to project plan).
4. Inlet/outlet pipe angle can vary to align with drainage network (refer to project plans).
5. Peak flow rate and minimum height limited by available cover and pipe diameter.
6. Larger sediment storage capacity may be provided with a deeper sump depth.

PARTS LIST				
ITEM	QTY	SIZE (in)	SIZE (mm)	DESCRIPTION
1	1	48	1200	I.D. PRECAST MANHOLE
2	1			INTERNAL COMPONENTS (PRE-INSTALLED)
3	1	30	750	FRAME AND COVER (ROUND)
4	1	24 (MAX)	600 (MAX)	OUTLET PIPE (BY OTHERS)
5	1	24 (MAX)	600 (MAX)	INLET PIPE (BY OTHERS)

4' DIAMETER FIRST DEFENSE STORMWATER SEPARATOR

MOD: 09/25/20 07/01/19



NOTES:

1. THIS DETAIL IS A SCHEMATIC REPRESENTATION FOR MUNICIPAL AND/OR AGENCY APPROVALS AND IS NOT INTENDED TO BE USED FOR CONSTRUCTION.
2. CONTRACTOR TO PROVIDE SITE-SPECIFIC SHOP DRAWINGS AND STRUCTURAL DESIGN CALCULATIONS FOR EACH RETAINING WALL PREPARED BY A STATE LICENSED PROFESSIONAL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
3. MODULAR CONCRETE BLOCK WALL TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
4. A SAFETY BARRIER (FENCING) IS REQUIRED ON ALL WALLS WHERE THE WALL HEIGHT EXCEEDS 30", PLACEMENT AND INSTALLATION METHOD OF THE PROPOSED FENCING TO BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS

REDI-ROCK GRAVITY WALL WITH 28" BLOCKS DETAIL

NOT TO SCALE | REDI-ROCK-DETL | 01/29/24

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\\Archdata\..\23384C.DTLS.dwg|C-17 DETAILS | By: KYLE.SHALLOW

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REV	DATE	DRAWN BY	DESCRIPTION



Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
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5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
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SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-DTLS

SHEET TITLE: CONSTRUCTION DETAILS

SHEET NUMBER: 17 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

PLANT DETAIL NOTES

1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT. MULCH SHALL NOT TOUCH THE TREE TRUNK.

2. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

3. WIRE BASKETS AND NON-JUTE BURLAP MUST BE ENTIRELY REMOVED FROM THE ROOT BALL. JUTE BURLAP MUST BE REMOVED FROM THE TOP 1/3 OF THE ROOT BALL.

4. DEPTH OF PLANT PIT SHALL BE INCREASED BY 12" WHEREVER POOR SOIL CONDITIONS OCCUR, WITH THE ADDITION OF LOOSE AGGREGATE.

5. CONTRACTOR SHALL PARTIALLY FILL WITH WATER A REPRESENTATIVE NUMBER OF PITS IN EACH AREA OF THE PROJECT PRIOR TO PLANTING TO DETERMINE IF THERE IS ADEQUATE PERCOLATION. IF PIT DOESN'T PERCOLATE, MEASURES MUST BE TAKEN TO ASSURE PROPER DRAINAGE BEFORE PLANTING.

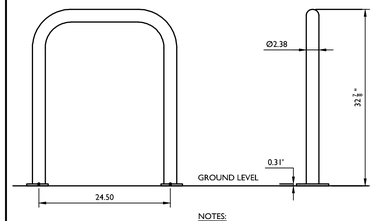
6. PLANTING MUST BE GUARANTEED FOR TWO FULL GROWING SEASONS FROM THE TIME OF FINAL ACCEPTANCE BY THE LANDSCAPE CONSULTANT. CONTRACTOR SHALL REMOVE ALL WRAPPING AT THE END OF GUARANTEE PERIOD OR SOONER PER PROJECT LANDSCAPE ARCHITECT.

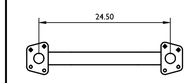
7. BACKFILL MIXTURE TO BE SPECIFIED BASED UPON SOIL TEST AND CULTURAL REQUIREMENTS OF PLANT.

8. PRUNE DAMAGED AND CONFLICTING BRANCHES MAINTAINING NORMAL TREE SHAPE, NEVER CUT CENTRAL TRUNK OR LEADER.

PLANT DETAIL NOTES

NOT TO SCALE PLNT-NOTE 01/29/24



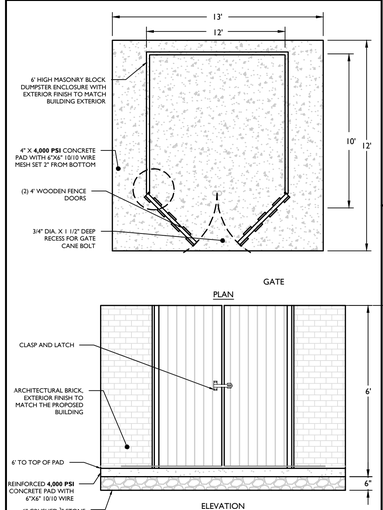


NOTES:

1. BICYCLE RACK MANUFACTURED BY PARK-A-BIKE HR202 (SURFACE MOUNT) OR APPROVED EQUAL. SHALL BE A POWDER COAT FINISH, COLOR RED.
2. INSTALL IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

INVERTED 'U' BICYCLE RACK DETAIL

NOT TO SCALE MCCM-SITE-FNCE-2401 07/01/19



NOTES:

1. GATE TO REMAIN CLOSED WHEN NOT IN USE. HINGES TO INCLUDE SELF-CLOSING MECHANISM.

MASONRY TRASH ENCLOSURE (10' X 12') DETAIL

NOT TO SCALE GNRL-DTLS-STND-GRID 01/30/24

1. THIS PLAN SHALL BE USED FOR LANDSCAPE PLANTING PURPOSES ONLY. EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES AND STRUCTURES AND NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES OR LOCATION CONFLICTS PRIOR TO PLANTING INSTALLATION.

2. THE CONTRACTOR IS RESPONSIBLE TO LOCATE AND VERIFY LOCATION OF ALL UTILITIES ON SITE PRIOR TO CONSTRUCTION.

3. ALL PLANT MATERIAL SHALL CONFORM TO GUIDELINES AS SET FORTH IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARD FOR NURSERY STOCK OR THE PLANT MATERIAL WILL BE UNACCEPTABLE. ALL PLANT MATERIAL SHALL BE TRUE TO SPECIES, VARIETY, SIZE AND BE CERTIFIED DISEASE AND INSECT FREE. THE OWNER AND/OR THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO APPROVE ALL PLANT MATERIAL ON SITE PRIOR TO INSTALLATION.

4. NO PLANT SUBSTITUTIONS SHALL BE PERMITTED WITH REGARD TO SIZE, SPECIES, OR VARIETY WITHOUT WRITTEN PERMISSION OF THE LANDSCAPE CONSULTANT. WRITTEN PROOF OF PLANT MATERIAL UNAVAILABILITY MUST BE DOCUMENTED.

5. THE LOCATION OF ALL PLANT MATERIAL INDICATED ON THE LANDSCAPE PLANS ARE APPROXIMATE. THE FINAL LOCATION OF ALL PLANT MATERIAL, AND PLANTING BED LINES SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF THE LANDSCAPE ARCHITECT.

6. ALL STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED LOWER THAN 7'-0" ABOVE GRADE. ALL PLANT MATERIAL LOCATED WITHIN SIGHT TRIANGLE EASEMENTS SHALL NOT EXCEED A MATURE HEIGHT OF 30" ABOVE THE ELEVATION OF THE ADJACENT CURB. ALL STREET TREES PLANTED IN SIGHT TRIANGLE EASEMENTS SHALL BE PRUNED TO NOT HAVE BRANCHES BELOW 10'-0".

7. THE PLANTING PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE SHOULD ANY PLANT QUANTITY DISCREPANCIES OCCUR.

8. ALL PLANT MATERIAL SHALL BE PROPERLY INSTALLED IN CONFORMANCE WITH THE TYPICAL PLANTING DETAILS. INSTALL ALL PLANT MATERIAL ON UNDISTURBED GRADE. CUT AND REMOVE JUTE BURLAP FROM TOP ONE-THIRD OF THE ROOT BALL. WIRE BASKETS AND NOT JUTE BURLAP SHALL BE COMPLETELY REMOVED PRIOR TO BACKFILLING THE PLANT PIT.

9. BRANCHES OF DECIDUOUS TREES SHALL BE PRUNED BACK BY NO MORE THAN ONE QUARTER (1/4) TO BALANCE THE TOP GROWTH WITH ROOTS AND TO PRESERVE THEIR CHARACTER AND SHAPE. THE CENTRAL LEADER OF TREE SHALL NOT BE PRUNED.

10. PROVIDE PLANTING PITS AS INDICATED ON PLANTING DETAILS. BACKFILL PLANTING PITS WITH ONE PART EACH OF TOPSOIL, PEAT MOSS AND PARENT MATERIAL. IF WET SOIL CONDITIONS EXIST THEN PLANTING PITS SHALL BE EXCAVATED AN ADDITIONAL 12" AND FILLED WITH CRUSHED STONE OR UNTIL FREE DRAINING.

11. ALL PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO EXISTING GRADE AT NURSERY.

12. OPTIMUM PLANTING TIME: DECIDUOUS - APRIL 1 TO JUNE 1 & OCTOBER 15 TO NOVEMBER 30, CONIFEROUS - APRIL 1 TO JUNE 1 & SEPTEMBER 1 TO NOVEMBER 1. PLANTING OUTSIDE OF THE OPTIMUM DATES SHALL NOT BE CONDUCTED WITH OUT PRIOR APPROVAL FROM THE LANDSCAPE CONSULTANT.

13. NEWLY INSTALLED PLANT MATERIAL SHALL BE WATERED AT THE TIME OF INSTALLATION. REGULAR WATERING SHALL BE PROVIDED TO ENSURE THE ESTABLISHMENT, GROWTH AND SURVIVAL OF ALL PLANTS. WATERING AMOUNTS SHOULD BE ADJUSTED AS RAIN EVENTS OCCUR. WATERING AFTER THE INITIAL 4 WEEKS SHALL BE ADJUSTED BASED ON SEASONAL CONDITIONS. WATERING SHALL NOT TAKE PLACE DURING THE HOTTEST POINT OF THE DAY.

14. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR TWO YEARS AFTER THE DATE OF FINAL ACCEPTANCE. ANY PLANT MATERIAL THAT DIES WITHIN THAT TIME PERIOD SHALL BE REMOVED, INCLUDING THE STUMP, AND REPLACED BY A TREE OF SIMILAR SIZE AND SPECIES AT NO EXPENSE TO THE OWNER.

15. THE LANDSCAPE CONTRACTOR SHALL PROVIDE A MINIMUM 4" LAYER OF TOPSOIL IN ALL LAWN AREAS AND A MINIMUM OF 12" OF TOPSOIL IN ALL PLANTING AREAS. A FULL SOIL ANALYSIS SHALL BE CONDUCTED AFTER CONSTRUCTION AND PRIOR TO PLANTING TO DETERMINE THE EXTENT OF SOIL AMENDMENT REQUIRED. SOIL PH SHOULD BE 5.5-6.5.

16. ALL DISTURBED LAWN AREAS SHALL BE STABILIZED WITH SEED AS INDICATED ON THE LANDSCAPE PLANS. TEMPORARY SEEDING SHALL BE IN ACCORDANCE WITH THE GENERAL SEEDING NOTES ON THIS SHEET. ALL DISTURBED LAWN AREAS SHALL BE TOPSOILED, LIMED, FERTILIZED AND FINE GRADED PRIOR TO LAWN INSTALLATION.

17. ALL PLANTING BEDS SHALL RECEIVE 3" OF SHREDDED HARDWOOD BARK MULCH.

18. ALL SHRUB MASSES SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS.

19. ALL PLANTING DEBRIS (WIRE, TWINE, RUBBER HOSE, BACKFILL ETC.) SHALL BE REMOVED FROM THE SITE AFTER PLANTING IS COMPLETE. PROPERTY IS TO BE LEFT IN A NEAT ORDERLY CONDITION IN ACCORDANCE WITH ACCEPTED PLANTING PRACTICES.

GENERAL PLANTING NOTES

NOT TO SCALE GNRL-PLNT-NOTE 01/29/24

1. TEMPORARY SEEDING: REFER TO SOIL EROSION AND SEDIMENT CONTROL PLANS.

2. PERMANENT SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURE OR APPROVED EQUAL: OPTIMUM SEEDING DATES ARE BETWEEN APRIL 1 AND MAY 31; AND AUGUST 16 AND OCTOBER 15. SEEDING OUTSIDE OF THE OPTIMUM DATES SHALL NOT BE CONDUCTED WITH OUT PRIOR APPROVAL. PERMANENT SEEDING TO BE APPLIED BY RAKING OR DRILLING INTO THE SOILS AT THE RATE GIVEN ABOVE.

TURF MIX

-TALL FESCUE, 'STINGRAY' (34%)
-TALL FESCUE, RAPTOR III (33%)
-HARD FESCUE, 'RIDU' (33%)

SEEDING RATE: 7-10 LBS./1,000 S.F. MIN

BIORETENTION AREA SEED MIXTURE
(NEW ENGLAND WETLAND PLANTS, INC. - NEW ENGLAND WETMIX, OR APPROVED EQUAL)

SPECIES LIST:

- FOX SEDGE, (CAREX VULPINIODEA)
- BLUNT BROOM SEDGE (CAREX SCOPARIA)
- LURID SEDGE (CAREX LURIDA)
- HOP SEDGE (CAREX LUPULINA)
- FOWL BLUEGRASS (POA PALUSTRIS)
- BEGGAR TICKS (BIDENS FRONDOSA)
- GREEN BULRUSH (SCIRPUS ATROVIRENS)
- SWAMP MILKWEED (ASCLEPIAS INCARNATA)
- FRINGED SEDGE (CAREX CRINITA)
- NEW YORK IRONWEED (VERNONIA NOVEBORACENSIS)
- SOFT RUSH (JUNCUS EFFUSUS)
- STARVED/CALICO ASTER (ASTER LATERIFLORUS)
- BLUE FLAG (IRIS VERSICOLOR)
- AMERICAN MANNAGRASS (GLYCERIA GRANDIS)
- SQUARE STEMMED MONKEY FLOWER (MIMULUS RINGENS)
- SPOTTED JOE PYE WEED (EUPATORIUM MACULATUM)

SEEDING RATE: 18 LBS PER ACRE.

NATIVE UPLAND WILDLIFE FORAGE & COVER MEADOW MIX
(ERNST CONSERVATION SEEDS - ERNMX-123, OR APPROVED EQUAL)

SPECIES LIST:

- BIG BLUESTEM, (ANDROPOGON GERARDII)	34.4%
- SWITCHGRASS (PANICUM)	27.0%
- VIRGINIA WILDRYE (ELYMUS VIRGINICUS)	21.0%
- INDIANGRASS (SORGHASTRUM NUTANS)	9.0%
- PARTRIDGE PEA (CHAMAECRISTA FASCICULATA)	3.0%
- BLACKEYED SUSAN (RUDBECKIA HIRTA)	3.0%
- OXEYE SUNFLOWER (HELIOPSIS HELIANTHOIDES)	1.5%
- PLAINS COREOPSIS (COREOPSIS TINCTORIA)	0.5%
- SHOWY TICKTREFOIL (DESMODIUM CANADENSE)	0.4%
- COMMON MILKWEED (ASCLEPIAS SYRIACA)	0.1%
- WILD BERGAMOT (MONARDA FISTULOSA)	0.1%

SEEDING RATE: 20 LBS PER ACRE

3. FERTILIZER FOR THE ESTABLISHMENT OF TEMPORARY AND PERMANENT VEGETATIVE COVER SHALL BE IN COMPLIANCE WITH THE LATEST NYSDEC REGULATIONS. THIS INCLUDES, BUT LIMITED TO:
   1. NO FERTILIZER SHALL BE APPLIED BETWEEN DEC. 1 AND APRIL 1 IN ANY YEAR.
   2. SHALL NOT BE APPLIED WITHIN 20 FEET OF A WATER BODY.
   3. ONLY LAWN FERTILIZER WITH LESS THAN 0.67% BY WEIGHT PHOSPHATE CONTENT MAY BE APPLIED.
   (A SOIL TEST PRIOR TO FERTILIZER APPLICATION IS RECOMMENDED.)

4. IF SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY OR PERMANENT SEEDING, EXPOSED AREA TO BE STABILIZED WITH MULCH AS INDICATED IN NOTE 4.

5. MULCH TO CONSIST OF SMALL GRAIN STRAW OR SALT HAY ANCHORED WITH A WOOD AND FIBER MULCH BINDER OR AN APPROVED EQUAL. MULCH WILL BE SPREAD AT RATES PER NYSDEC STANDARDS AND ANCHORED WITH A MULCH ANCHORING TOOL OR LIQUID MULCH BINDER, AND SHALL BE PROVIDED ON ALL SEEDLINGS. HYDROMULCH SHALL ONLY BE USED DURING OPTIMUM GROWING SEASONS.

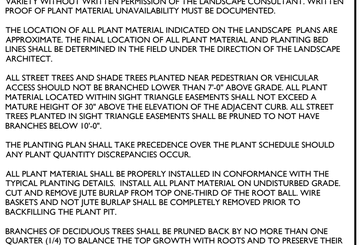
6. AS NEEDED, WORK LIME AND FERTILIZER INTO SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.

7. REMOVE FROM THE SURFACE ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS, OR OTHER UNSUITABLE MATERIAL.

8. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE.

GENERAL SEEDING NOTES

NOT TO SCALE GNRL-SEED-NOTE 01/29/24

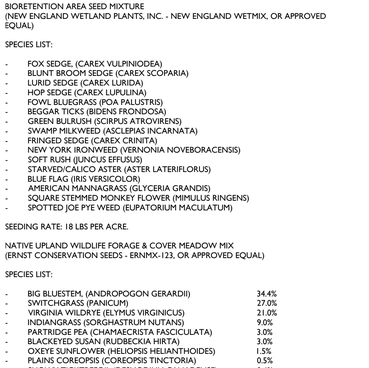


NOTES:

1. LUMINAIRES TO BE MANUFACTURED BY HYDREL OR APPROVED EQUAL.
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF LIGHT FIXTURES FOR REVIEW AND APPROVAL BY THE OWNER OR PROJECT LANDSCAPE ARCHITECT.
3. FOOTING TO BE DESIGNED PER MANUFACTURERS SPECIFICATIONS.
4. * - VOLTAGE TO BE PROVIDED BY ELECTRICIAN.

BOLLARD LIGHT DETAIL

NOT TO SCALE GNRL-LGHT-DETL 01/25/2024

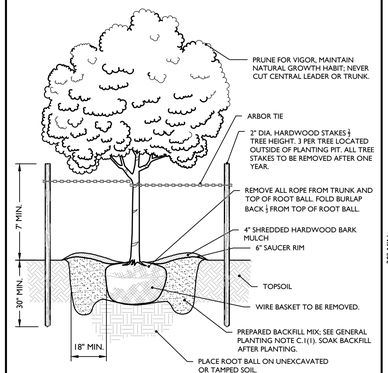


NOTES:

1. LUMINAIRES TO BE MANUFACTURED BY LITHONIA LIGHTING OR APPROVED EQUAL.
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF LIGHT FIXTURES FOR REVIEW AND APPROVAL BY THE OWNER OR PROJECT LANDSCAPE ARCHITECT.
3. *VOLTAGE TO BE CONFIRMED BY ELECTRICIAN CONTRACTOR.

WALL MOUNTED FIXTURE DETAIL

NOT TO SCALE GNRL-DTLS-LGHT 09/21/23

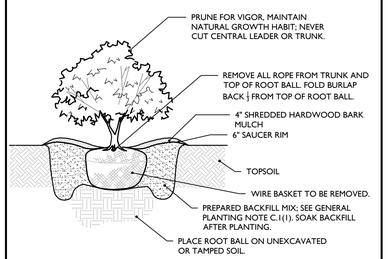


NOTES:

1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE GNRL-DTLS-TREE 09/21/23

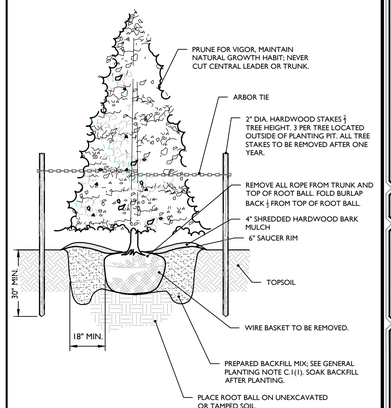


NOTES:

1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

SHRUB PLANTING DETAIL

NOT TO SCALE GNRL-DTLS-TREE 09/21/23

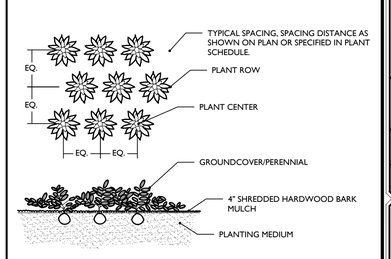


NOTES:

1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE GNRL-DTLS-TREE 09/21/23

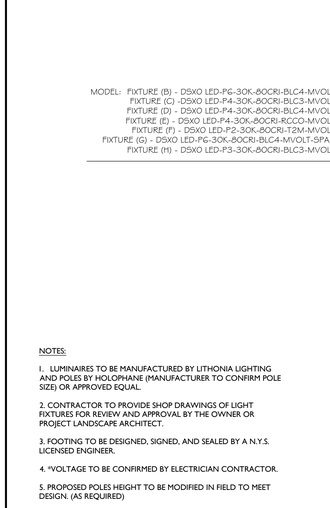


NOTES:

1. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

GROUNDCOVER/PERENNIAL PLANTING DETAIL

NOT TO SCALE GNRL-DTLS-TREE 09/21/23



NOTES:

1. LUMINAIRES TO BE MANUFACTURED BY LITHONIA LIGHTING AND POLES BY HOLOPHANE (MANUFACTURER TO CONFIRM POLE SIZE) OR APPROVED EQUAL.
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF LIGHT FIXTURES FOR REVIEW AND APPROVAL BY THE OWNER OR PROJECT LANDSCAPE ARCHITECT.
3. FOOTING TO BE DESIGNED, SIGNED, AND SEALED BY A N.Y.S. LICENSED ENGINEER.
4. *VOLTAGE TO BE CONFIRMED BY ELECTRICIAN CONTRACTOR.
5. PROPOSED POLES HEIGHT TO BE MODIFIED IN FIELD TO MEET DESIGN. (AS REQUIRED)

POLE MOUNTED FIXTURE DETAIL

NOT TO SCALE GNRL-DTLS-LGHT 09/21/23

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY MAPS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

\\Acrobat\...\23284C-DTLS.dwg|C-18 DETAILS By:KYLE SHALLOW

Colliers Engineering & Design

www.colliersengineering.com

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FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION

REGISTERED LANDSCAPE ARCHITECT — JUSTIN E. DATES — 001964 — STATE OF NEW YORK

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-DTLS

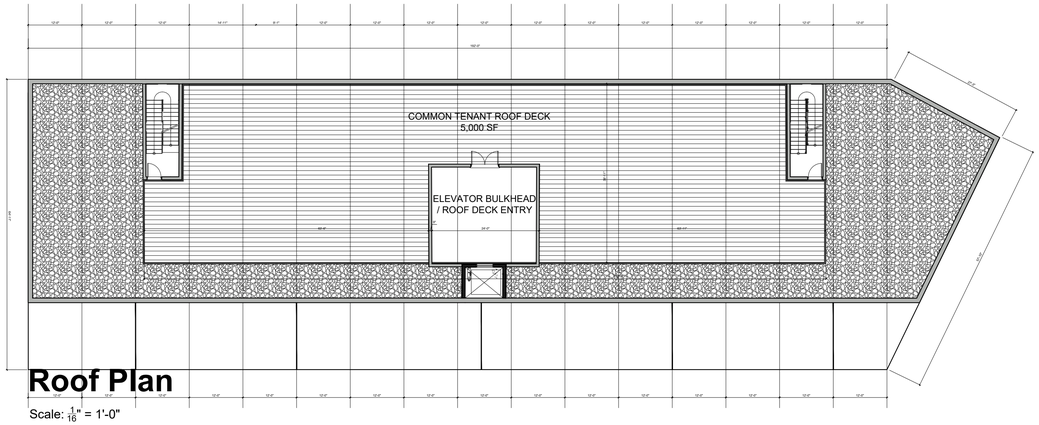
SHEET TITLE: CONSTRUCTION DETAILS

SHEET NUMBER: 18 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

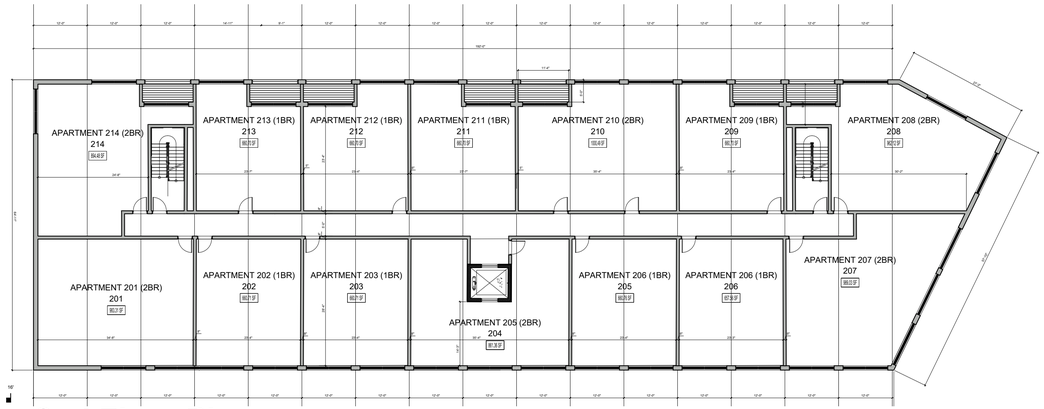
Architectural Plans

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	01/29/24	REVISED PER PLANNING BOARD COMMENTS	AJS



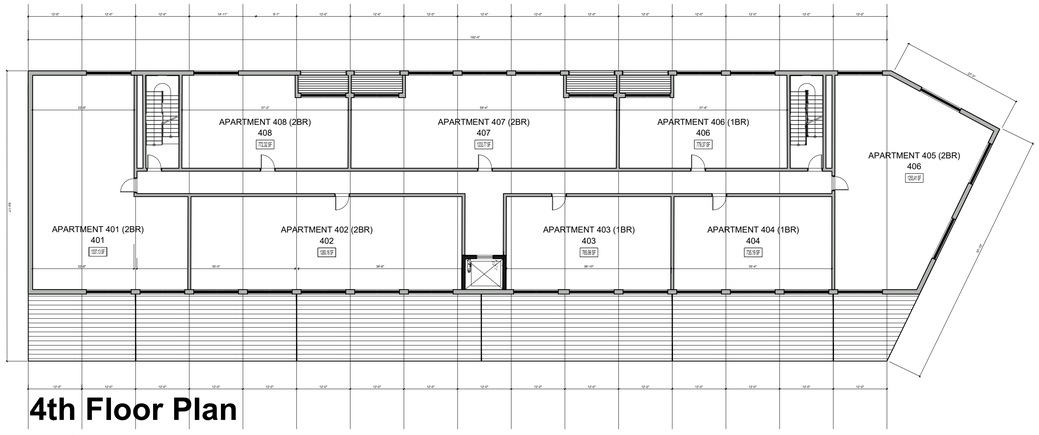
Roof Plan

Scale: $\frac{1}{16}$" = 1'-0"



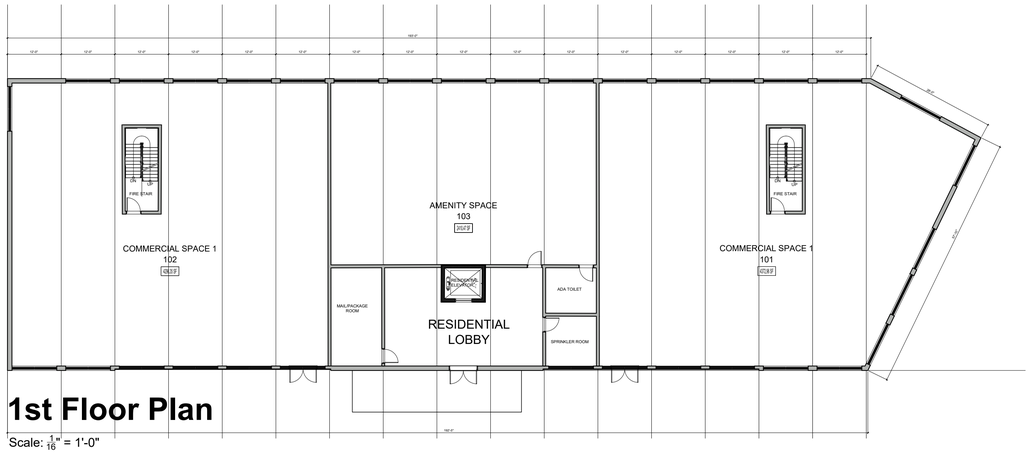
2nd Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"



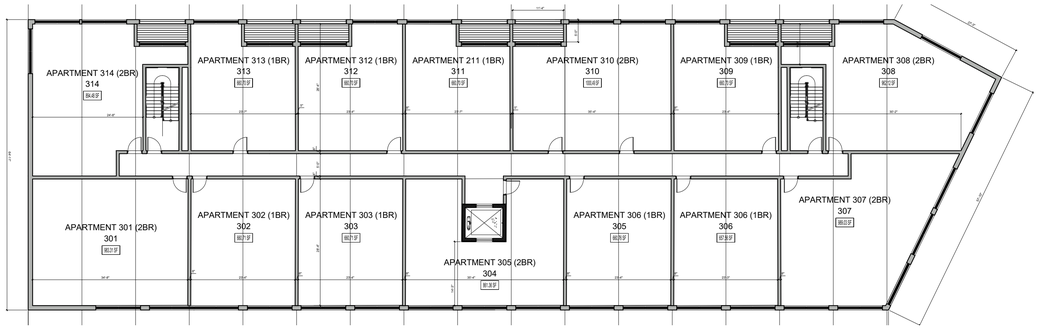
4th Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"



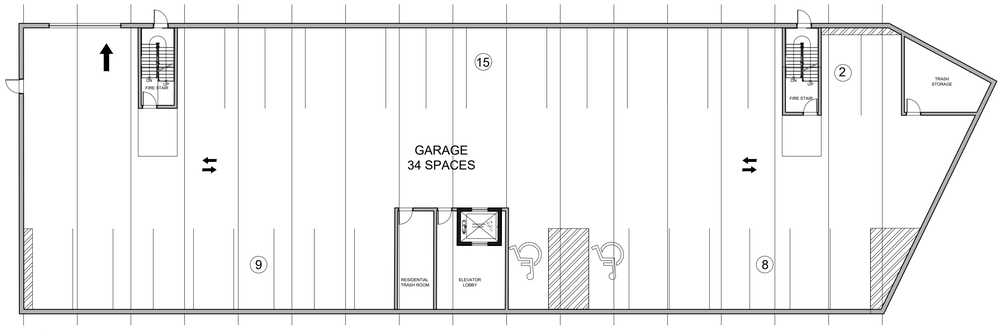
1st Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"



3rd Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"



Garage Plan

Scale: $\frac{1}{16}$" = 1'-0"

Site Plan Application

Sheet A-101 - Building Plans - Beekman Street

Owner / Applicant:
Beekman Arts Center LLC
(Tax ID: 5955-19-706012)
268 Main Street
Beacon, NY 12508

Owner / Applicant:
Bayridge Studios LLC
(Tax ID: 5954-26-781983 & 5954-26-689990)
268 Main Street
Beacon, NY 12508

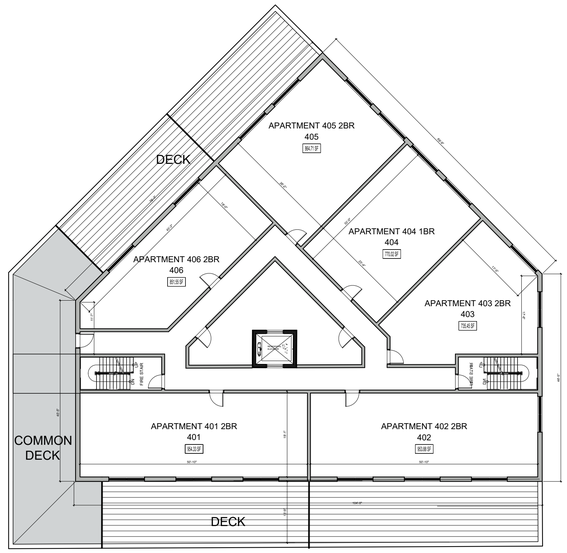
Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

Site / Civil Engineer:
Colliers Engineering & Design
555 Hudson Valley Avenue - Suite 101
New Windsor, NY 12553

Surveyor:
Automated Construction Enhanced Solutions, Inc.
1229 Route 300 - Suite 4
Newburgh, NY 12550

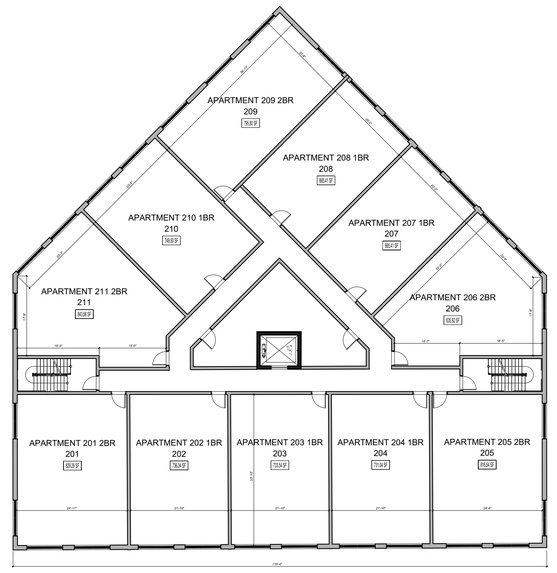
45 Beekman Street
Beacon, New York
Scale: 1" = 30'
November 28, 2023

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	01/29/24	REVISED PER PLANNING BOARD COMMENTS	AJS



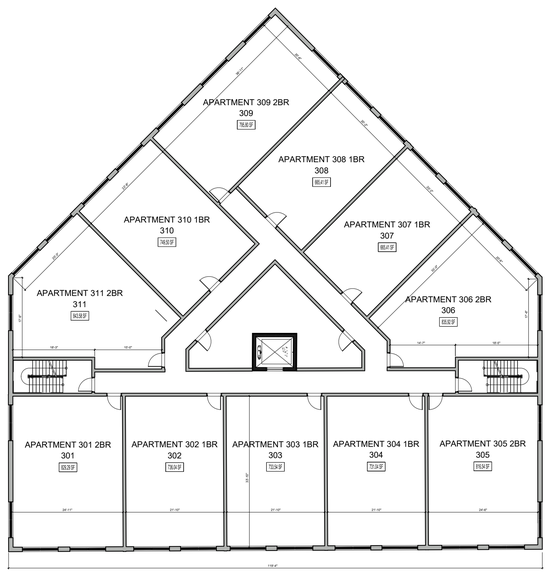
4th Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"



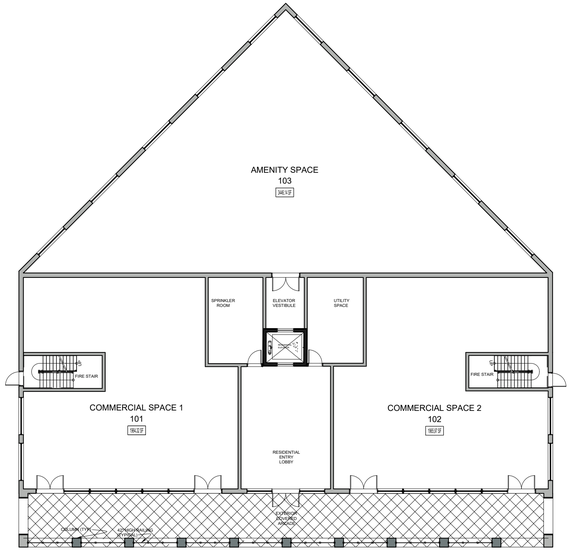
2nd Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"



3rd Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"



1st Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"

Site Plan Application

Sheet A-100 - Building Plans - High Street

Owner / Applicant:
Beekman Arts Center LLC
(Tax ID: 5955-19-706012)
268 Main Street
Beacon, NY 12508

Owner / Applicant:
Bayridge Studios LLC
(Tax ID: 5954-26-781983 & 5954-26-689990)
268 Main Street
Beacon, NY 12508

Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

Site / Civil Engineer:
Colliers Engineering & Design
555 Hudson Valley Avenue - Suite 101
New Windsor, NY 12553

Surveyor:
Automated Construction Enhanced Solutions, Inc.
1229 Route 300 - Suite 4
Newburgh, NY 12550

45 Beekman Street
Beacon, New York
Scale: 1" = 30'
November 28, 2023

Traffic & Parking Study

400 Columbus Avenue, Suite 180E
Valhalla, New York 10595
Main: 877 627 3772
colliersengineering.com

Colliers
Engineering & Design

Memorandum

To: Chairman John Gunn
Members of the City Beacon Planning Board

From: Richard D'Andrea, P.E., PTOE

Date: January 31, 2024

Subject: 45 Beekman Street & High Street
Traffic & Parking Study

Project No.: 23010468A

Our office recently completed a Revised Traffic & Parking Study dated January 24, 2024, for the above-referenced Project, a copy of which is attached to this Memorandum. That Study analyzes the potential traffic and parking impacts of the Project assuming a development proposal to include a 4-story building that will be comprised of approximately 8,670 square feet of commercial space and 2,410 square feet of tenant amenity space on the 1st Floor, together with 36 dwelling units on Floors 2-4 in the 45 Beekman Street parcel building and a 4-story building comprised of approximately 5,418 square feet of commercial space and 3,420 square feet of tenant amenity space on the 1st Floor together with approximately 28 dwelling units on Floors 2-4 in the High Street parcels building.

The Project has since been revised slightly to reduce the total commercial square footage within the High Street building from 5,418 square feet down to 3,930 square feet in order to create an exterior covered arcade in front of the commercial storefronts along Beekman Street. This change in proposed commercial square footage will result in a further reduction in the total traffic generation and parking demand for the Project that is detailed within the Revised Traffic & Parking Study.

Traffic generation estimates for the reduced development size have been prepared and summarized in Table No. 1R, attached. These estimates indicate that the Project will generate two (2) fewer vehicle trips during the Weekday AM Peak Hour, seven (7) fewer vehicle trips during the Weekday PM Peak Hour and eight (8) fewer vehicle trips during the Saturday Peak Hour when compared to the trip generation estimates presented in the Revised Traffic & Parking Study. Based on the reduced development size and revised traffic generation estimates it can be concluded that the traffic analysis contained in the Revised Traffic & Parking Study is slightly conservative and the conclusions of the study do not change significantly with changes in the development size.

Colliers Engineering & Design

The shared parking analysis, accounting for the Project's proximity to the Beacon Metro North train station, included in the Revised Traffic & Parking Study has also been recomputed to reflect the reduced development size. This revised parking analysis is summarized in Tables P-1AR and P-2AR, attached. As indicated in the tables, the peak parking demand for the reduced development size Project is anticipated to be 78 parking spaces, which will be accommodated by the 83 spaces to be provided on the Site.

Finally, a fully revised Traffic & Parking Study accounting for the reduced development size will be prepared and submitted to the Planning Board as part of a future submission.

R:\Projects\2023\23010468A\Correspondence\OUT\240131RGD_PB Memo_Reduced Development Size.docx

Table No. 1R
Hourly Trip Generation Rates (HTGR) and Anticipated Site Generated Traffic Volumes

45 Beekman Street & High Street City of Beacon, Dutchess County, New York	Entry			Exit		
	HTGR[1]	Volume	New Trips[2]	HTGR[1]	Volume	New Trips[2]
Residential (64 Units)						
Peak AM Hour	0.15	10	10	0.51	33	33
Peak PM Hour	0.48	31	31	0.28	18	18
Saturday Peak Hour	0.22	14	14	0.22	14	14
Commercial (12,600 Sq. Ft.)						
Peak AM Hour	1.59	20	20	1.11	14	14
Peak PM Hour	3.65	46	41	3.65	46	41
Saturday Peak Hour	3.33	42	38	3.25	41	37
Total						
Peak AM Hour	-	30	30	-	47	47
Peak PM Hour	-	77	72	-	64	59
Saturday Peak Hour	-	56	52	-	55	51

NOTES:

1) THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 11TH EDITION, 2021. ITE LAND USE CODE - 220 - MULTIFAMILY HOUSING (LOW-RISE) AND ITE LAND USE CODE - 822 - STRIP RETAIL PLAZA (<40K).

2) "NEW TRIPS" INCLUDES A 10% INTERNAL TRIP CREDIT APPLIED TO THE RETAIL LAND USE FOR THE PEAK PM AND SATURDAY PEAK HOURS TO ACCOUNT FOR TRIPS BETWEEN THE RESIDENTIAL AND COMMERCIAL PORTIONS OF THE SITE BASED ON NCHRP 684 INTERNAL TRIP CAPTURE ESTIMATION TOOL ANALYSIS AS SUMMARIZED ON TABLES 1-A, 1-B AND 1-C.

TABLE NO. P-1AR
SHARED PARKING ANALYSIS
WEEKDAY (WITH RAIL CREDIT)

		45 Beekman Street				High Street				
Use		**Residential**		**Retail**		**Residential**		**Retail**		
Size		36 Units		8,670 Sq. Ft.		28 Units		3,930 Sq. Ft.		**Total Peak Parking Demand**
Demand Factor		1 /Unit		3.0 /1,000 Sq. Ft.		1 /Unit		3.0 /1,000 Sq. Ft.		
Peak Hour Demand[2]		33 Spaces		27 Spaces		26 Spaces		12 Spaces		
Time of Day		**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**Parking**
Start	**End**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Spaces**
12:00 AM	1:00 AM	97%	33	0%	-	97%	26	0%	-	59
1:00 AM	2:00 AM	97%	33	0%	-	97%	26	0%	-	59
2:00 AM	3:00 AM	97%	33	0%	-	97%	26	0%	-	59
3:00 AM	4:00 AM	97%	33	0%	-	97%	26	0%	-	59
4:00 AM	5:00 AM	97%	33	0%	-	97%	26	0%	-	59
5:00 AM	6:00 AM	100%	33	0%	-	100%	26	0%	-	59
6:00 AM	7:00 AM	96%	32	0%	-	96%	25	0%	-	57
7:00 AM	8:00 AM	85%	29	0%	-	85%	23	0%	-	52
8:00 AM	9:00 AM	67%	23	19%	6	67%	18	19%	3	50
9:00 AM	10:00 AM	54%	18	33%	9	54%	15	33%	4	46
10:00 AM	11:00 AM	48%	16	47%	13	48%	13	47%	6	48
11:00 AM	12:00 PM	45%	15	55%	15	45%	12	55%	7	49
12:00 PM	1:00 PM	45%	15	89%	25	45%	12	89%	11	63
1:00 PM	2:00 PM	42%	14	100%	27	42%	11	100%	12	64
2:00 PM	3:00 PM	42%	14	73%	20	42%	11	73%	9	54
3:00 PM	4:00 PM	47%	16	73%	20	47%	13	73%	9	58
4:00 PM	5:00 PM	49%	17	66%	18	49%	13	66%	8	56
5:00 PM	6:00 PM	56%	19	70%	19	56%	15	70%	9	62
6:00 PM	7:00 PM	64%	22	75%	21	64%	17	75%	9	69
7:00 PM	8:00 PM	72%	24	70%	19	72%	19	70%	9	71
8:00 PM	9:00 PM	77%	26	54%	15	77%	21	54%	7	69
9:00 PM	10:00 PM	85%	29	48%	13	85%	23	48%	6	71
10:00 PM	11:00 PM	92%	31	0%	-	92%	24	0%	-	55
11:00 PM	12:00 AM	95%	32	0%	-	95%	25	0%	-	57
								Peak Parking Demand		**71**

Notes:

1) "%of Peak Demand" based on Institute of Transportation Engineers (ITE) Parking Generation Manual, 5th Edition Land Use 220 - Multifamily Housing (Low-Rise) and Land Use 820 - Shopping Center Hourly Demand Distributions.

2) "Peak Hour Demand" assumes a 10% credit for proximity to the Beacon Metro North Train Station based on ITE data.

TABLE NO. P-2AR
SHARED PARKING ANALYSIS
WEEKEND (WITH RAIL CREDIT)

		45 Beekman Street				High Street				
Use		**Residential**		**Retail**		**Residential**		**Retail**		
Size		36 Units		8,670 Sq. Ft.		28 Units		3,930 Sq. Ft.		**Total Peak Parking Demand**
Demand Factor		1 /Unit		3.0 /1,000 Sq. Ft.		1 /Unit		3.0 /1,000 Sq. Ft.		
Peak Hour Demand[2]		33 Spaces		27 Spaces		26 Spaces		12 Spaces		
Time of Day		**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**Parking**
Start	**End**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Spaces**
12:00 AM	1:00 AM	92%	31	0%	-	92%	24	0%	-	55
1:00 AM	2:00 AM	92%	31	0%	-	92%	24	0%	-	55
2:00 AM	3:00 AM	92%	31	0%	-	92%	24	0%	-	55
3:00 AM	4:00 AM	92%	31	0%	-	92%	24	0%	-	55
4:00 AM	5:00 AM	92%	31	0%	-	92%	24	0%	-	55
5:00 AM	6:00 AM	100%	33	0%	-	100%	26	0%	-	59
6:00 AM	7:00 AM	99%	33	0%	-	99%	26	0%	-	59
7:00 AM	8:00 AM	97%	33	0%	-	97%	26	0%	-	59
8:00 AM	9:00 AM	92%	31	0%	-	92%	24	0%	-	55
9:00 AM	10:00 AM	83%	28	38%	11	83%	22	38%	5	66
10:00 AM	11:00 AM	79%	27	55%	15	79%	21	55%	7	70
11:00 AM	12:00 PM	71%	24	66%	18	71%	19	66%	8	69
12:00 PM	1:00 PM	68%	23	85%	23	68%	18	85%	11	75
1:00 PM	2:00 PM	65%	22	100%	27	65%	17	100%	12	78
2:00 PM	3:00 PM	62%	21	96%	26	62%	17	96%	12	76
3:00 PM	4:00 PM	66%	22	79%	22	66%	18	79%	10	72
4:00 PM	5:00 PM	66%	22	66%	18	66%	18	66%	8	66
5:00 PM	6:00 PM	67%	23	64%	18	67%	18	64%	8	67
6:00 PM	7:00 PM	70%	24	67%	19	70%	19	67%	9	71
7:00 PM	8:00 PM	78%	26	70%	19	78%	21	70%	9	75
8:00 PM	9:00 PM	77%	26	70%	19	77%	21	70%	9	75
9:00 PM	10:00 PM	80%	27	51%	14	80%	21	51%	7	69
10:00 PM	11:00 PM	82%	28	0%	-	82%	22	0%	-	50
11:00 PM	12:00 AM	88%	30	0%	-	88%	23	0%	-	53
								Peak Parking Demand		**78**

Notes:

1) "%of Peak Demand" based on Institute of Transportation Engineers (ITE) Parking Generation Manual, 5th Edition Land Use 220 - Multifamily Housing (Low-Rise) and Land Use 820 - Shopping Center Hourly Demand Distributions.

2) "Peak Hour Demand" assumes a 10% credit for proximity to the Beacon Metro North Train Station based on ITE data.

Colliers
Engineering
& Design

Traffic & Parking Study

November 28, 2023
Revised January 26, 2024

45 Beekman Street & High Street
City of Beacon
Dutchess County, New York

Prepared for:

Beekman Arts Center LLC
Bay Ridge Studios LLC
268 Main Street
Beacon, NY 12508

Prepared by:

Richard G. D'Andrea, P.E., PTOE
New York Professional Engineer
License No. 090241

Joseph Muccin, P.E., PTOE
Senior Project Engineer

Colliers Engineering & Design
400 Columbus Avenue
Suite 180E
Valhalla New York 10595
Main: 877 627 3772
Colliersengineering.com

Project No. 23010468A

Colliers Engineering & Design

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I. Introduction

A. Project Description and Location

(Figure No. 1)

This report has been prepared to evaluate the potential traffic and parking related impacts associated with the proposed 45 Beekman and High Street mixed-use development in the City of Beacon, Dutchess County, New York (the "Project"). The Project is proposed to be developed on three (3) adjacent parcels, one (1) parcel that has frontage along Beekman Street that is presently improved by a 15,190 sq. ft commercia/retail building and associated parking areas. This parcel is setback from the ROW on North Avenue (NYS Route 9D), Tompkins Avenue and Beekman Street. The remaining two (2) vacant parcels are located along High Street, one of which is a corner lot fronting on both High Street and Beekman Street. The two (2) proposed mixed-use buildings are located entirely within the City of Beacon's Linkage ("L") Zoning District, however a very limited portion of the Project site, which includes the existing access driveway from Tompkins Avenue is classified within the R1-7.5 Zoning District.

The 45 Beekman Street parcel is proposed to consist of a 4-story building that will be comprised of approximately 8,670 square feet of commercial space and 2,410 square feet of tenant amenity space on the 1st Floor, together with 36 dwelling units on Floors 2-4. The lands generally comprising the existing High Street parcels are proposed to be improved by a 4-story building comprised of approximately 5,418 square feet of commercial space and 3,420 square feet of tenant amenity space on the 1st Floor, together with approximately 28 dwelling units on Floors 2-4. The 45 Beekman Street building will also include 34 garage parking spaces located below the proposed building. In total the Project will provide 83 off-street parking spaces including the 34 garage parking spaces and a total of 49 surface parking lot spaces. It is anticipated that all parking spaces will be shared amongst the two (2) buildings. As shown on Figure No. 1, access to the development is proposed via existing driveway connections to Tompkins Avenue and Beekman Street. Additionally, the Project proposes landscaping and streetscape improvements to be completed within the NYSDOT Right-of-Way along the Project's North Avenue (NYS Route 9D) frontage. A Design Year of 2026 has been utilized to assess the potential future traffic impacts of the Project.

It should be noted that the commercial space proposed within each building is not currently defined as strictly retail or office space. For the purposes of the analysis contained herein, it has been assumed that all commercial space will be retail space, which provides a somewhat conservative analysis of traffic and parking conditions.

This Traffic & Parking Study has been revised to account for updated parking data recently published by the Institute of Transportation Engineers (ITE) and contained in the ***Parking Generation Manual, 6th Edition.*** This revised Study also provides a shared parking analysis to account for the site's proximity to nearby Beacon Metro North Train Station as discussed further herein.

B. Scope of Study

This study has been prepared to identify current and future traffic operating and parking conditions on the surrounding roadway network and to assess the potential traffic and parking impacts of the proposed development.

All available traffic count data for the study area intersections were obtained from previous reports prepared by our office. These data were supplemented with new traffic counts collected by representatives of Colliers Engineering & Design CT, P.C. These data were also compared to count data obtained from the New York State Department of Transportation (NYSDOT). Together these data were utilized to establish the 2023 Existing Traffic Volumes representing existing traffic conditions in the vicinity of the site.

The 2023 Existing Traffic Volumes were then projected to a 2026 Design Year to take into account background traffic growth. In addition, traffic for other specific potential or approved developments in the area were estimated and then added to the Projected Traffic Volumes to obtain the 2026 No-Build Traffic Volumes.

Estimates were then made of the potential traffic that the proposed development would generate during each of the peak hours (see Section III-C for further discussion). The resulting site generated traffic volumes were then added to the roadway system and combined with the 2026 No-Build Traffic Volumes resulting in the 2026 Build Traffic Volumes.

The Existing, No-Build and Build Traffic Volumes were then compared to roadway capacities based on the procedures from the Highway Capacity Manual to determine existing and future Levels of Service and operating conditions. Recommendations for improvements were made where necessary to serve the existing and/or future traffic volumes.

In addition to the traffic analysis, the anticipated parking demand of the Project was computed based on the City Code requirements. The analysis of parking conditions for the Project included a shared parking analysis to assess the actual anticipated peak parking demand for the Project.

II. Existing Roadway and Traffic Descriptions

A. Project Description and Location

As shown on Figure No. 1, the Project will be accessed from Tompkins Avenue and Beekman Street via existing driveway connections. The following is a brief description of the roadways located within the study area. In addition, Section III-F provides a further description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service and any recommended improvements for each of the study area intersections. Appendix "D" contains copies of the capacity analyses which indicate the existing geometrics (including lane widths) and other characteristics for each of the individual intersections studied.

1. Wolcott Avenue/North Avenue (NYS Route 9D)

Wolcott Avenue/North Avenue (NYS Route 9D) is classified as an urban minor arterial roadway, which traverses in a generally north south direction throughout the City of Beacon. In the immediate vicinity of the Project, Wolcott Avenue/North Avenue consists of one lane in each direction with a center turn lane. There is no on-street parking along the roadway, but sidewalks are provided on both sides of the roadway. Within the study area Wolcott Avenue/North Avenue has signalized intersections with Verplanck Avenue, Beekman Street, Main Street and South Avenue. The posted speed limit within the City limits is 30 MPH.

It should be noted that the nearest bus stop to the Project site is located at the intersection of NYS Route 9D and Main Street. The Dutchess County Route B: Poughkeepsie Transit Hub to Beacon and Route G: Beacon Free Loop both make stops at this location.

2. Beekman Street

Beekman Street is a two-lane City roadway classified as an urban major collector roadway that originates at a signalized intersection with North Avenue north of the Project site. The roadway serves as a main access connection between North Avenue and the Beacon MetroNorth Train Station. Sidewalks are provided along the roadway on alternating sides of the roadway throughout its entire length. On-street parking is also provided along the east side of the roadway between North Avenue and River Street and then on the west side of the roadway between River Street and Railroad Avenue. The posted speed limit on Beekman Street is 30 MPH.

3. Tompkins Avenue

Tompkins Avenue is a two-lane City roadway that originates at an unsignalized intersection with North Avenue. One lane of travel is provided in both directions with no centerline striping. The roadway has a total pavement width of approximately 27-ft. and the City speed limit of 30 MPH prevails along the roadway. Sidewalks are provided along the south side of the roadway between North Avenue and Bank Street. On-street parking is permitted along both sides of the roadway but is limited to 4-hour parking between the hours of 6AM and 6PM.

4. **Verplanck Avenue**

   Verplanck Avenue is a two-lane City roadway classified as an urban major collector roadway that originates at a signalized intersection with North Avenue (NYS Route 9D) and continues southeast terminating at its intersection with Main Street. Sidewalks are provided along both sides of the roadway throughout its entire length. On-street parking is not provided along this roadway and the posted speed limit is 25 MPH.

B. 2023 Existing Traffic Volumes

(Figures No. 2 through 4, Appendix E)

Turning movement traffic counts were collected by representatives of Colliers Engineering & Design (CED) on Thursday, September 7, 2023, and Saturday, September 9, 2023, to determine the existing traffic volume conditions at the study area intersections during the anticipated peak operation of the Project. These traffic counts were then compared to traffic volume data from previous traffic studies conducted by our office and to traffic volume data available from the New York State Department of Transportation (NYSDOT) for the NYS Route 9D corridor. All relevant traffic volume data is provided in Appendix E for reference. Based on this information, the 2023 Existing Traffic Volumes were established for the Weekday Peak AM Hour, Weekday Peak PM Hour, and Saturday Peak Hour at the following study area intersections:

- North Avenue (NYS Route 9D) and Verplanck Avenue
- North Avenue (NYS Route 9D) and Tompkins Avenue/Ralph Street
- North Avenue (NYS Route 9D) and Beekman Street/W. Church Street
- Wolcott Avenue/North Avenue (NYS Route 9D) and Main Street/Municipal Plaza
- Beekman Street and High Street

Based upon a review of the traffic counts, the peak hours were generally identified as follows:

- Weekday Peak AM Hour — 7:30 AM – 8:30 AM
- Weekday Peak PM Hour — 4:15 PM – 5:15 PM
- Saturday Peak Hour — 1:00 PM – 2:00 PM

The resulting 2023 Existing Traffic Volumes are shown on Figures No. 2, 3, and 4 for the Weekday Peak AM Hour, Weekday Peak PM Peak Hour, and Saturday Peak Hour, respectively.

III. Evaluation of Future Traffic Conditions

A. 2026 No-Build Traffic Volumes

(Figure No. 5 through 13)

The 2023 Existing Traffic Volumes were increased by a growth factor of 2.0% per year to account for general background growth within the study area resulting in the 2026 Projected Traffic Volumes, which are shown on Figures No. 5, 6, and 7 for each of the Peak Hours. In addition, traffic from other specific potential and/or approved developments in the area including Mirbeau Beacon, 364 Main Street, Edgewater (Edgewater Place), Beacon Commons (16 West Main Street) and Prophecy Theater (1113 Wolcott Avenue) were identified. The resulting traffic volumes associated with these other developments are shown on Figures No. 8, 9, and 10 for each of the peak hours. These volumes were added to the 2026 Projected Traffic Volumes resulting in the 2026 No-Build Traffic Volumes which are shown on Figures No. 11, 12, and 13 for the AM, PM, and Saturday Peak Hours, respectively.

B. Site Generated Traffic Volumes

(Table No. 1, 1-A, 1-B, and 1-C, Appendix E)

Estimates of the amount of traffic to be generated by the proposed development during each of the peak hours were developed based on information published by the Institute of Transportation Engineers (ITE) as contained in the report entitled "Trip Generation", 11th Edition, 2021, based on Land Use Category – 220 – Multifamily Housing (Low Rise) and Land Use Category – 822 – Strip Retail Plaza (<40K). Table No. 1 summarizes the trip generation rates and corresponding site generated traffic volumes for the Weekday Peak AM, Weekday Peak PM and Saturday Peak Hours.

It is anticipated that some portion of the Project generated trips could remain internal to the site as trips may occur between the residential and commercial portions of the Project. In order to assess the potential internal trips, an internal capture analysis was conducted for each of the peak hours based on NCHRP 684 Internal Trip Capture Estimation Tool. This analysis is summarized in Tables No. 1-A, 1-B, and 1-C contained in Appendix B. The internal capture analysis results indicate that the internal capture percentage during the Weekday Peak PM and Saturday Peak Hours could approach as much as 25%, while little to no internal capture trips are anticipated during the Weekday AM Peak Hour. Based on this analysis, the traffic generation estimates presented in Table No. 1 account for a somewhat conservative internal capture percentage of 10% for the Weekday PM and Saturday Peak Hours applied to the commercial portions of the development only. No internal capture has been applied to the traffic generation estimates for the Weekday AM Peak Hour.

It should also be noted that the Project is located within approximately 2,000-ft. of the Beacon Metro-North Train Station and it is anticipated that a portion of the residents of the Project may utilize train transportation on a regular basis potentially reducing the daily and peak hour vehicular trips generated by the Project. Based on 2021 American Community Survey data for the City of Beacon available from the United States Census Bureau, approximately ten percent (10%) of Beacon residents utilize public transportation for their means of transportation to work and considering the proximity of the Project to the train station this percentage could be somewhat higher. The American Community Survey data also indicates that approximately four percent (4%) of Beacon residents walk or bike to work and ten percent (10%) of Beacon residents work from home. The referenced American Community Survey data is provided in Appendix E. However, no credit for these potential reductions in traffic generation has been accounted for in the analysis providing a somewhat conservative analysis of future traffic conditions associated with the Project.

C. Arrival/Departure Distribution

(Figures No. 14 through 17)

It was necessary to establish arrival and departure distributions to assign the site generated traffic volumes to the surrounding roadway network. Based on a review of the Existing Traffic Volumes and the expected travel patterns on the surrounding roadway network, the distributions were identified separately for the residential and commercial portions of the Project. The resulting anticipated residential arrival and departure distributions are shown on Figures No. 14 and 15, respectively while the commercial arrival and departure distributions are shown on Figures No. 16 and 17.

D. 2026 Build Conditions Traffic Volumes

(Figures No. 18 through 23)

The site generated traffic volumes were assigned to the roadway network based on the arrival and departure distributions referenced above. The resulting total site generated traffic volumes for each of the study area intersections are shown on Figures No. 18, 19, and 20 for each of the peak hours, respectively. The site generated traffic volumes were then added to the 2026 No-Build Traffic Volumes to obtain the 2026 Build Traffic Volumes. The resulting 2026 Build Traffic Volumes are shown on Figures No. 21, 22, and 23 for the Weekday Peak AM, Weekday Peak PM, and Saturday Peak Hours, respectively.

E. Description of Analysis Procedures

(Appendix C)

It was necessary to perform capacity analyses in order to determine existing and future traffic operating conditions at the study area intersections. The following is a brief description of the analysis method utilized in this report:

1. **Signalized Intersection Capacity Analysis**
   The capacity analysis for a signalized intersection was performed in accordance with the procedures described in the Highway Capacity Manual, 6th Edition, dated 2016, published by the Transportation Research Board. The terminology used in identifying traffic flow conditions is Levels of Service. A Level of Service "A" represents the best condition and a Level of Service "F" represents the worst condition. A Level of Service "C" is generally used as a design standard while a Level of Service "D" is acceptable during peak periods. A Level of Service "E" represents an operation near capacity. In order to identify an intersection's Level of Service, the average amount of vehicle delay is computed for each approach to the intersection as well as for the overall intersection.

2. **Unsignalized Intersection Capacity Analysis**
   The unsignalized intersection capacity analysis method utilized in this report was also performed in accordance with the procedures described in the Highway Capacity Manual, 6th Edition, dated 2016. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the Level of Service, the average amount of vehicle delay is computed for each critical movement to the intersection.

Additional information concerning signalized and unsignalized Levels of Service can be found in Appendix C of this report.

F. Results of Analysis

(Tables No. 2, TSW-1 and TSW-2, Appendix D & E)

Capacity analyses, which take into consideration appropriate truck percentages, pedestrian activity, roadway grades and other factors, were performed at the study area intersections utilizing the procedures described above to determine the Levels of Service and average vehicle delays. Summarized below are a description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service as well as any recommended improvements.

Table No. 2 summarizes the results of the capacity analysis for the 2023 Existing, 2026 No-Build and 2026 Build Conditions. Appendix D contains copies of the capacity analysis which also indicate the existing geometrics (including lane widths) and other characteristics for each of the individual intersections studied. The traffic signal timing data for each of the signalized intersections has also been obtained from the NYSDOT and is provided in Appendix E for reference.

1. **North Avenue (NYS Route 9D) and Verplanck Avenue**

   North Avenue (NYS Route 9D) and Verplanck Avenue intersect at a "T"-shaped signalized intersection. The northbound North Avenue approach consists of a single shared through/right lane. The southbound North Avenue approach consists of a shared through/right lane and separate left turn lane with approximately 340 ft. of storage distance. The westbound Verplanck Avenue approach consists of an 85 ft. long separate left turn lane and a separate right turn lane. The intersection also has signalized pedestrian actuated crossings of the northbound and westbound approaches.

   Capacity analysis was conducted for this intersection utilizing the 2023 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at an overall Level of Service "B" during the each of the Peak Hours.

   The capacity analysis was recomputed using the 2026 No-Build and Build Traffic Volumes. These results indicate that the intersection is expected to continue to operate at an overall Level of Service "B" during the AM and Saturday Peak Hours while a Level of Service "C" will be experienced during the PM Peak Hour both with and without the Project.

2. **North Avenue (NYS Route 9D) and Tompkins Avenue/Ralph Street**

   North Avenue (NYS Route 9D) and Tompkins Avenue/Ralph Street intersect at a four-way intersection with Tompkins Avenue and Ralph Street controlled by stop-signs. The North Avenue approaches each consist of a shared through/right turn lane and separate left turn lane. The Tompkins Avenue and Ralph Street approaches each consist of one lane. Striped pedestrian crosswalks are present on the Tompkins Avenue and Ralph Street approaches.

   Capacity analysis was conducted for this intersection utilizing the 2023 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at a Level of Service "D" or better across all time periods.

   The capacity analysis was recomputed using the 2026 No-Build Traffic Volumes. These results indicate that the intersection is expected to operate at a Level of Service "F" for vehicles exiting Tompkins Avenue during all time periods. Similar operating conditions are also anticipated under future Build conditions with the Project.

   As part of the Edgewater development, this intersection was previously identified to be monitored for potential signalization after completion of that Project. In light of this, capacity analysis was conducted for the intersection under potential traffic signal control. These results indicate that the intersection would be expected to operate at an overall Level of Service "A" during each of the peak hours under future No-Build and Build conditions with traffic signal control.

A traffic signal warrant analysis has been conducted to further assess the potential need for a traffic signal at this intersection in the future. This analysis, which has been conducted in accordance with the Traffic Signal Warrant criteria specified in the Manual on Uniform Traffic Control Devices, assesses the intersection under future 2026 No-Build and 2026 Build Traffic Volume conditions. The No-Build conditions analysis is presented in Table TSW-1 while the Build conditions analysis is presented in Table TSW-2, both contained in Appendix B. Based on the results of the analysis, the intersection is projected to satisfy Warrant 2 – Four-Hour Vehicular under No-Build conditions regardless of the Project. Under future Build conditions, the intersection is projected to satisfy Warrant 1 Condition B – Minimum Vehicular Interruption of Continuous Traffic, Warrant 2 – Four-Hour Vehicular Volume and Warrant 3 – Peak Hour Volume.

Based on this analysis of future projected traffic volume conditions, it appears that a traffic signal may be warranted at the intersection upon completion of area projects and specifically the Edgewater Project and the 45 Beekman Street & High Street Project. It is the recommendation of CED that this intersection continue to be monitored after completion of these projects to assess the actual traffic volumes at that time. Signalization of this intersection would also require the review and approval of the NYSDOT. It should be noted that the critical volume for satisfaction of the traffic signal volume warrants at this intersection is the exiting volume from Tompkins Avenue. The Edgewater Project is estimated to contribute as much as 7-times the amount of traffic to the Tompkins Avenue exiting approach as the 45 Beekman Street & High Street Project. In fact, the 45 Beekman Street & High Street Project traffic is only estimated to be approximately 3.0% of the total traffic at this intersection during all peak time periods analyzed under future Build conditions.

3. **North Avenue (NYS Route 9D) and Beekman Street/W. Church Street**

North Avenue (NYS Route 9D) intersects with Beekman Street and W. Church Street at a full movement signalized intersection. The northbound and southbound approaches each consist of a separate left turn lane in each direction with a shared through/right turn lane. The Beekman Street eastbound approach consists of a shared left turn/through lane and an approximately 95 ft. long separate right turn lane. The westbound W. Church Street approach consists of a single lane for all movements. The intersection also has signalized pedestrian actuated crossings of the southbound, eastbound and westbound approaches. There is no pedestrian crossing on the northbound North Avenue approach.

Capacity analysis was conducted for this intersection utilizing the 2023 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at an overall Level of Service “F” during each of the peak hours analyzed. It should be noted that during the AM Peak Hour the southbound North Avenue approach experiences the longest delays as vehicles turn onto Beekman Street towards the Beacon Metro North train station. Conversely, during the PM Peak Hour, the eastbound Beekman Street approach experiences the longest delays resulting from exiting traffic from the train station. Furthermore, these

delays on the Beekman Street approach currently meter the release of traffic onto NYS Route 9D towards the I-84 interchange.

The capacity analysis was recomputed using the 2026 No-Build and Build Traffic Volumes. These results indicate that the intersection is expected to continue to operate at an overall Level of Service "F" during the each of the peak hours.

In order to address the existing and future delays at this intersection, traffic signal phasing and timing modifications have been identified that would improve the overall operations of the intersection. The traffic signal phasing modifications include changing the northbound and southbound left turn phases from a lagging left turn phase to a leading left turn phase. In addition, the eastbound and westbound approaches are proposed to be modified from concurrent operation to split phase operation. Associated signal timing modifications have also been identified. In addition, it is proposed to move the existing signalized pedestrian crossing of North Avenue from the north side of the intersection to the south side of intersection such that crossing pedestrians do not conflict with the traffic flows to and from Beekman Street at this intersection. Based on the analysis results, the intersection would be expected to operate at an overall Level of Service "C" during all time periods under future Build conditions. These signal timing and phasing modifications as well as the modifications to the pedestrian accommodations will require review and approval by NYSDOT and will require physical changes to the traffic signal equipment and intersections striping to be implemented under an NYSDOT Highway Work Permit.

4. **Wolcott Avenue/North Avenue (NYS Route 9D) and Main Street/Municipal Plaza**

Wolcott Avenue/North Avenue (NYS Route 9D) intersects with Main Street/Municipal Plaza at a full movement signalized intersection. The northbound and southbound approaches each consist of a separate left turn lane in each direction with a shared through/right turn lane. The eastbound City Hall approach consists of a shared left/through/right lane, while the westbound Main Street approach consists of a shared left/through lane and a separate right turn lane with a storage length of approximately 70 feet. The intersection also has signalized pedestrian actuated crossings on all approaches.

Capacity analysis was conducted for this intersection utilizing the 2023 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at an overall Level of Service "B" across all time periods.

The capacity analysis was recomputed using the 2026 No-Build and Build Traffic Volumes. These results indicate that the intersection is expected to continue to operate at an overall Level of Service "B" across all time periods.

In association with the traffic signal phasing and timing modifications at the Beekman Street/ W. Church Street intersection, corresponding traffic signal timing modifications are necessary at the Main Street/Municipal Plaza intersection since these two signals are currently coordinated. The traffic signal timing modifications for the Main Street/Municipal Plaza intersection have been identified to maintain coordination of the traffic signals. These modifications do not significantly change the traffic operating conditions at the intersection.

5. **Beekman Street and High Street**

Beekman Street and High Street intersect at a "T" type intersection with High Street is controlled by a stop-sign. All approaches to the intersection consist of one lane. Sidewalks are provided on all approaches on both sides of each road, and a crosswalk is present crossing the High Street approach. Left turns from Beekman Street onto High Street are currently prohibited.

Capacity analysis was conducted for this intersection utilizing the 2023 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at a Level of Service "B" or better during the AM Peak Hour and Saturday Peak Hour, while operating at a Level of Service "A" during the PM Peak Hour.

The capacity analysis was recomputed using the 2026 No-Build and Build Traffic Volumes. These results indicate that the intersection is expected to continue to at a Level of Service "B" or better across all time periods.

6. **Beekman Street and Site Access**

The Project Site is currently accessed from Beekman Street via a driveway connection located approximately 200 feet east of High Street and 345 ft. west of North Avenue forming an unsignalized "T" type intersection. Each approach to the intersection consists of one lane. Sidewalks are provided on all approaches. This site access location will be maintained under the future Build conditions.

Capacity analysis was conducted for this intersection utilizing the 2026 Build Traffic Volumes. The analysis results indicate that the intersection is expected to operate at a Level of Service "B" or better during the AM Peak Hour and Saturday Peak Hour, while operating at a Level of Service "C" or better during the PM Peak Hour. Some pruning of vegetation on both sides of the driveway along the site frontage should be completed to ensure proper sight distance is provided.

Queueing conditions along Beekman Street from the North Avenue intersection have also been reviewed to assess potential impacts to vehicles entering and exiting the site driveway. Based on the traffic analysis results for the North Avenue/Beekman Street intersection with the proposed traffic signal improvements, queues on the Beekman Street eastbound approach from the North Avenue intersection are expected to be less than 300 ft. which will allow for the vehicles to enter and exit the site access driveway without conflict with queues along Beekman Street.

7. **Tompkins Avenue and Site Access**

   The Project Site is currently accessed from Tomkins Avenue via a driveway connection located approximately 60 feet west of North Avenue forming an unsignalized "T" type intersection. Each approach to the intersection consists of one lane. Sidewalks are provided on the south side of Tompkins Avenue in this area. This site access driveway location will be maintained under the future Build conditions.

   Capacity analysis was conducted for this intersection utilizing the 2026 Build Traffic Volumes. The analysis results indicate that the intersection is expected to operate at a Level of Service "A" across all time periods.

G. Beekman Street Complete Streets Analysis

(Appendix E)

The Dutchess County Transportation Council (DCTC) prepared a Complete Streets Analysis for Beekman Street dated January 29, 2018. Relevant pages of this analysis are contained in Appendix E for reference. CED has reviewed this analysis, which analyzes existing vehicular, pedestrian and bicycle accommodations along and around Beekman Street including pathways between Main Steet/North Avenue and the Beacon Metro-North Train Station. The analysis makes recommendations to improve pedestrian and bicycle access along Beekman Street and surrounding roadways, which include improved pedestrian crossings and pathways, protected bike lanes along Beekman Street, installation of bicycle "sharrows" along Beekman Street, North Avenue and other area roadways, etc. The Project as currently proposed would not prohibit any of the recommendations of the Beekman Street Complete Streets Analysis from being implemented. Furthermore, the modifications at the intersection of North Avenue/Beekman Street intersection will consider the recommendation of the DCTC study.

IV. Parking Evaluation

(Table P-1 & P-2, Appendix F)

As indicated previously, the Project development area falls within the City of Beacon Linkage District. The City of Beacon Zoning Code's (the "Zoning Code") provides specific parking requirements for Linkage District development as specified in Section 223-41.21.F. Based on the Zoning Code, 1 space is required for every residential dwelling unit, and 3 spaces are required for every 1,000 square feet of retail commercial space. The relevant code section is provided in Appendix F for reference. Exhibit No. 1 below summarizes the total parking requirements for the Project based on the City Code. It should be noted, and as previously indicated, it has been assumed that all commercial space will be retail space rather than office space, which provides a somewhat conservative analysis of traffic and parking conditions.

Exhibit No. 1 – City of Beacon Code Required Parking

Proposed Use	Size	City of Beacon Code Requirement[1]	Required Spaces
45 Beekman Street			
Residential	36 Dwelling Units	1 Space/Dwelling Unit	36 Spaces
Retail Commercial	8,670 sq. ft.	3 Space/1,000 Sq. Ft.	27 Spaces
High Street			
Residential	28 Dwelling Units	1 Space/Dwelling Unit	28 Spaces
Retail Commercial	5,418 sq. ft.	1 Space/Dwelling Unit	17 Spaces
		Total Required Parking Spaces	**108 Spaces**

Notes:
1. City of Beacon Code Requirement parking ratios based on Section 223-41.21.F of the City Code.

As indicated in the table, the Project is currently required to have a total of 108 off-street parking spaces per the City Code. As noted above, the Project currently proposes 83 off-street parking spaces, including 34 garages spaces within the 45 Beekman Street building and 49 surface lot parking spaces, which will result in the Project being deficient by 22 parking spaces per the current City Code requirements. It should be noted that all parking spaces are anticipated to be shared spaces with no spaces designated specifically for residential or commercial uses. CED is monitoring the City Council's current draft amendments to the City's Parking Regulations that could impact the total amount of off-street parking spaces required for a mixed-use project.

The City of Beacon Zoning Code allows for the Planning Board to modify off-street parking requirements in the L District. Specifically, City Code Section 223-41.21.F.(3) indicates… *The quantity of required on-site parking in Subsection F(2) above may be modified by the Planning Board, in its discretion, based upon information submitted by the applicant or otherwise made available to the Planning Board in the public record, demonstrating one or more of the following:*

(a) That the projected operational characteristics of the proposed use and/or its proximity within walking distance of the train station and other services justify a reduction in the required amount of parking.
(b) That adequate shared parking, contractually obligated for the duration of the proposed use, is available within 500 feet of the site and in the L District.
(c) That the applicant has provided sufficient bicycle parking to reduce anticipated vehicular travel demand, as supported by a professional parking study.
(d) That there is sufficient public parking available within 800 feet of the site and in the L District to meet foreseeable parking needs of the proposed use and surrounding uses for the duration of the proposed use.
(e) That the applicant will voluntarily dedicate land for public parking on site or will acquire land by purchase or long-term lease (for the duration of the proposed use) within 800 feet of the site and in the L District and voluntarily dedicate such land to the City for public parking.
(f) That a professional parking study of the proposed use and the surrounding area demonstrates that a different amount of parking would be appropriate for the use in its particular location and/or that existing and/or proposed off-site parking is sufficient.

Item (a) above applies to the Project since it is located within approximately 2,000 ft. of the Beacon Metro-North Train Station. The previously referenced 2021 American Community Survey data for the City of Beacon indicates that approximately ten percent (10%) of Beacon residents utilize public transportation, which could be somewhat higher for the Project given its proximity to the train station. (See further discussion of train usage below.) In addition, the American Community Survey data indicates that approximately five (5%) of Beacon residents do not own a vehicle. Item (c) also applies as the Project plans provide bicycle racks in the vicinity of both proposed buildings.

Furthermore, in support of Item (b) & (f) and in order to assess the total parking requirement for the Project based on the variation of time of use of the parking spaces for each use proposed within the Project, a shared parking analysis was conducted to determine the total anticipated parking demand on an hourly basis. This analysis accounts for variations in parking demand over the course of the day for each of the proposed uses to determine a total parking demand for the Project. Hourly parking demand distributions for a typical Weekday and Saturday as published by the Institute of Transportation Engineers (ITE) contained in the ***Parking Generation Manual, 6th Edition*** were applied to the City Code required parking requirements to conduct this shared parking analysis. ITE provides parking demand distributions on an hourly basis for Land Use 220 – Multifamily Housing (Low-Rise) and Land Use 822 – Strip Retail Plaza (<40k)). The hourly distribution data for each land use is provided in Appendix G for reference.

The resulting Shared Parking Analysis is summarized in Tables P-1 and P-2 for Weekday and Saturday conditions, respectively. As indicated in the tables, the peak parking demand for the Project when accounting for the shared use of parking between the residential and commercial uses will result in a total parking demand of 78 parking spaces on a weekday, occurring between 7PM – 8PM and 87 parking spaces on a Saturday also occurring between 1PM – 2PM. It should also be noted that the parking analysis does not take any credit for the potential of internal trips between the residential units and commercial space, which was estimated to be as much as ten percent (10%) as noted in Section III.B above and would result in some reductions in overall parking demand.

Furthermore, the Shared Parking Analysis presented in Tables P-1 and P-2 does not take credit for the proximity of the Project to the nearby Beacon Metro North Train Station (approximately 1,900 ft./0.36-mile walking distance). As indicated previously, approximately ten percent (10%) of Beacon residents utilize public transportation for their means of transportation to work. Moreover, ITE data for Land Use 220 – Multifamily Housing (Low-Rise) indicates that parking demand ratios for multifamily residential buildings within ½ mile of commuter rail have an average parking demand approximately 10-12% less than those multifamily buildings outside the ½ proximity. In recognition of this data, a further shared parking analysis was conducted accounting for the Project's proximity to the train station utilizing at 10% credit applied to the residential portions of the Project. This analysis is summarized in Tables P-1A and P-2A for Weekday and Saturday conditions, respectively. As indicated in the tables, the peak parking demand for the Project when accounting for the shared use of parking between the residential and commercial uses and the proximity to the train station will result in a total parking demand of 74 parking spaces on a weekday, occurring between 7PM – 8PM and 83 parking spaces on a Saturday also occurring between 1PM – 2PM. Based on this shared parking analysis, it is anticipated that the 83 proposed on-site parking spaces will satisfy the total anticipated parking demand for the Project.

Based on this analysis as well as the provision of bicycle parking/storage, as permitted by City Code Section 223-41.21.F.(3), the Applicant is requesting that the Planning Board consider approval of the joint use of parking spaces for the Project and approve a modification to the overall parking requirement for the Project down to the 83 proposed parking spaces to be provided.

V. Summary and Conclusion

The traffic analysis summarized herein provides a somewhat conservative analysis of future traffic conditions since no credit has been taken for the potential reduction in the Project's traffic generation resulting from with the Project's proximity to the Beacon Metro North train station. It is anticipated that a portion of the Project residents will utilize the nearby public transportation on a regular basis reducing the overall vehicle trips generated by the Project. Based on this conservative analysis summarized above, the additional Project generated traffic is not anticipated to have a significant impact on traffic conditions in the vicinity of the site, however several the following recommendations have been identified to accommodate both existing and future traffic associated with the Project and other area projects currently under development.

- Consistent with previous findings for the North Avenue (NYS Route 9D) at Tompkins Avenue/Ralph Street intersection, this intersection should be monitored after substantial completion of this Project and other area projects to assess the actual traffic volumes at that time. Signalization of this intersection would require the review and approval of the NYSDOT.
- Traffic signal phasing and timing modifications should be considered for the intersection of North Avenue (NYS Route 9D) at Beekman Street/Church Street to improve the overall operation of the intersection and specifically the southbound North Avenue and eastbound Beekman Street approaches. In addition, it is proposed to move the existing signalized pedestrian crossing of North Avenue from the north side of the intersection to the south side of intersection such that crossing pedestrians do not conflict with the traffic flows to and from Beekman Street at this intersection. These will require review and approval by NYSDOT and will need to be implemented under an NYSDOT Highway Work Permit.
- Traffic signal timing modifications have also been identified for the intersection of North Avenue (NYS Route 9D) at Main Street/Municipal Plaza. These traffic signal timing modifications for the Main Street/Municipal Plaza intersection have been identified to maintain coordination of the traffic signal with the North Avenue (NYS Route 9D) at Beekman Street/Church Street.

With the above identified mitigation measures, it is the opinion of Colliers Engineering & Design that the Project will not have any potentially significant adverse environmental impacts on traffic operating conditions in the vicinity of the site and that the proposed mitigation measures will help to address existing deficiencies in the area.

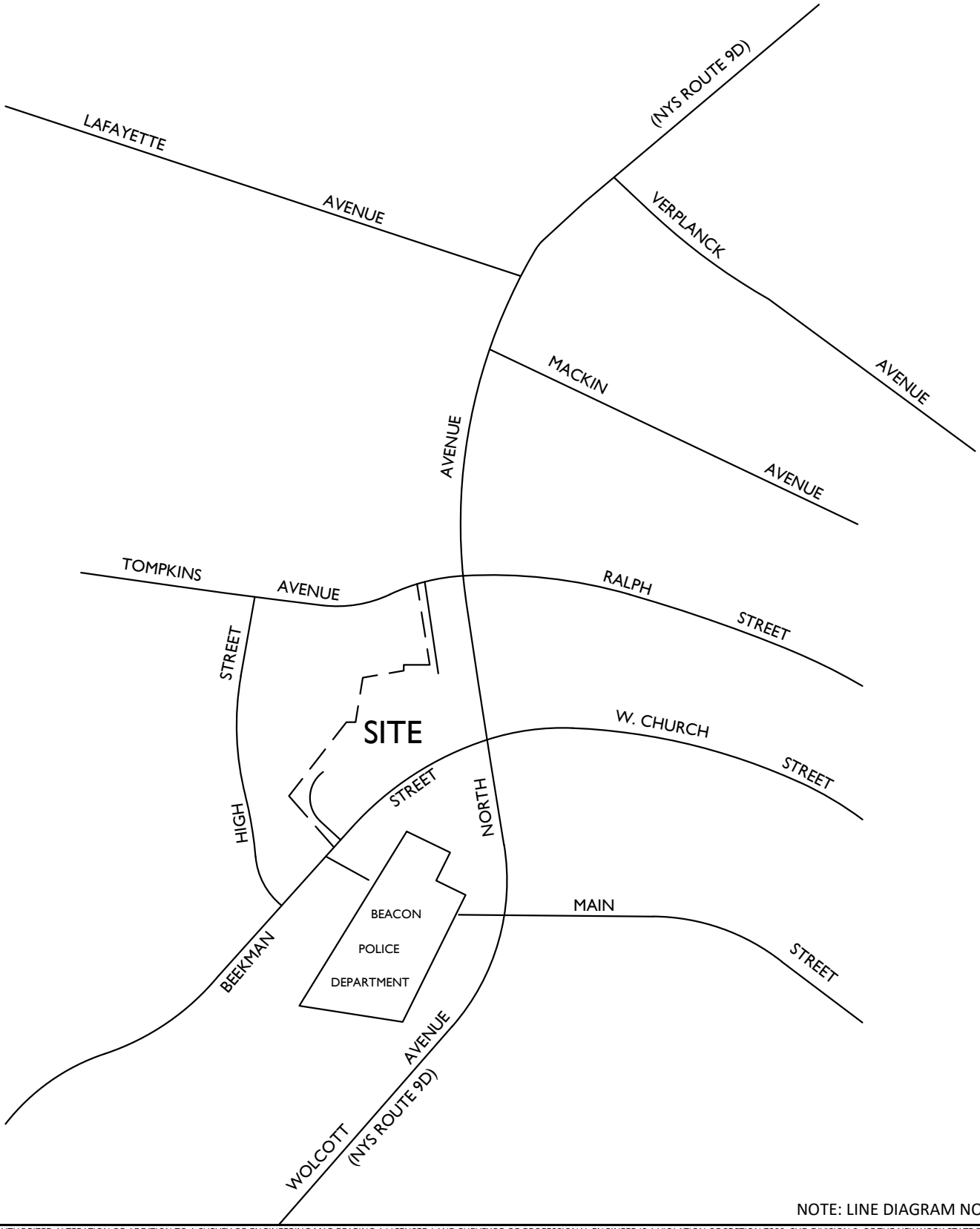
In addition, the parking analysis indicates that the Project will provide sufficient parking to accommodate the residential and commercial uses on-site based on the summarized shared parking analysis, the proximity to the train station and the provision of bicycle parking on the site. Based on this analysis as permitted by City Code Section 223-41.21.F.(3), the Applicant is requesting that the Planning Board consider approval of the joint use of parking spaces for the Project and approve a modification to the overall parking requirement for the Project down to the 83 proposed parking spaces to be provided.

Lastly, the Project proposes landscaping and streetscape improvements to be completed within the NYSDOT Right-of-Way along the Project's North Avenue (NYS Route 9D) frontage. These improvements will require review and approval of the NYSDOT under a Use & Occupancy Permit and a Highway Work Permit for the installation of the improvements.

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Traffic & Parking Study

Appendix A | Traffic Figures



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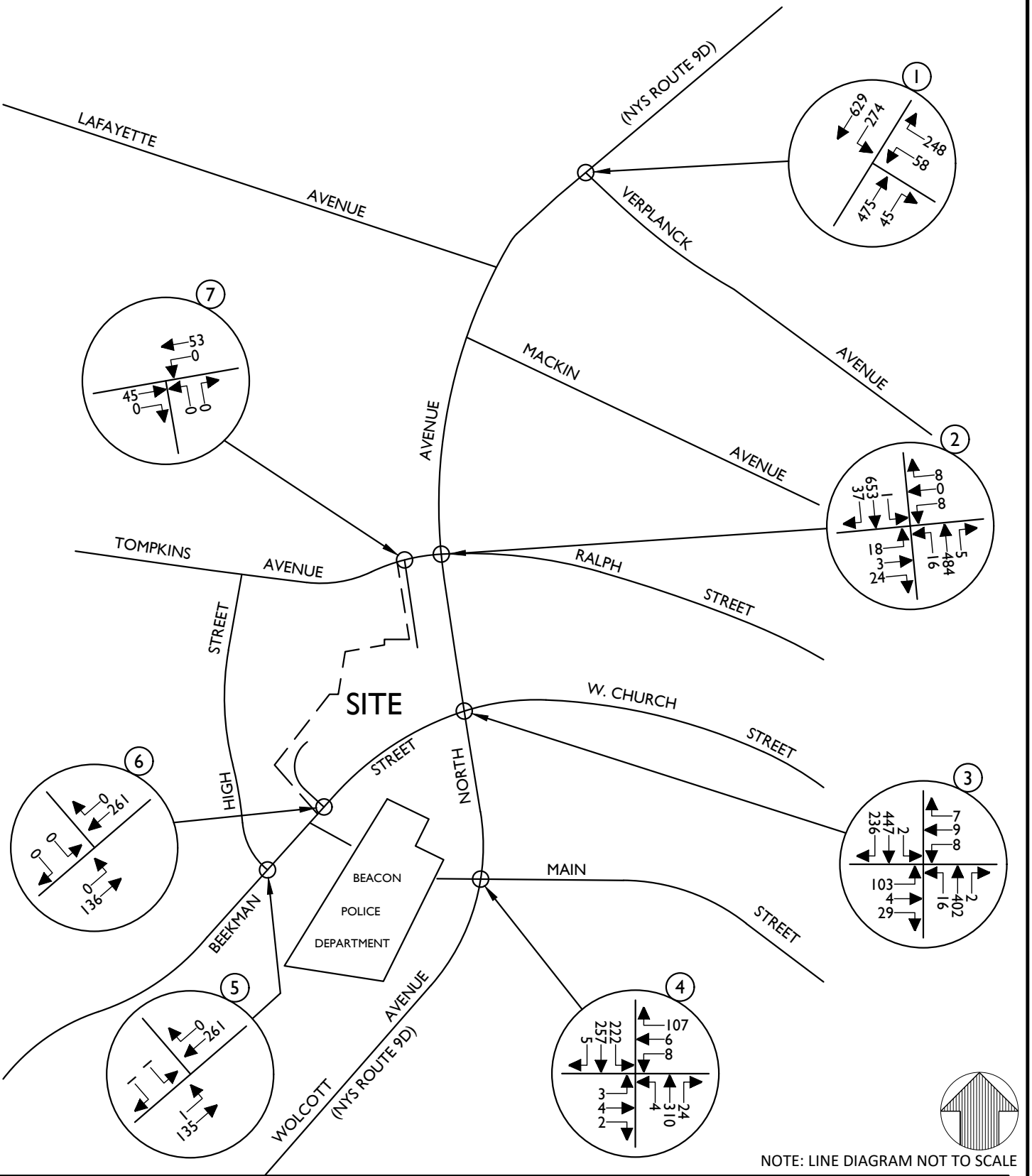
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SITE LOCATION MAP

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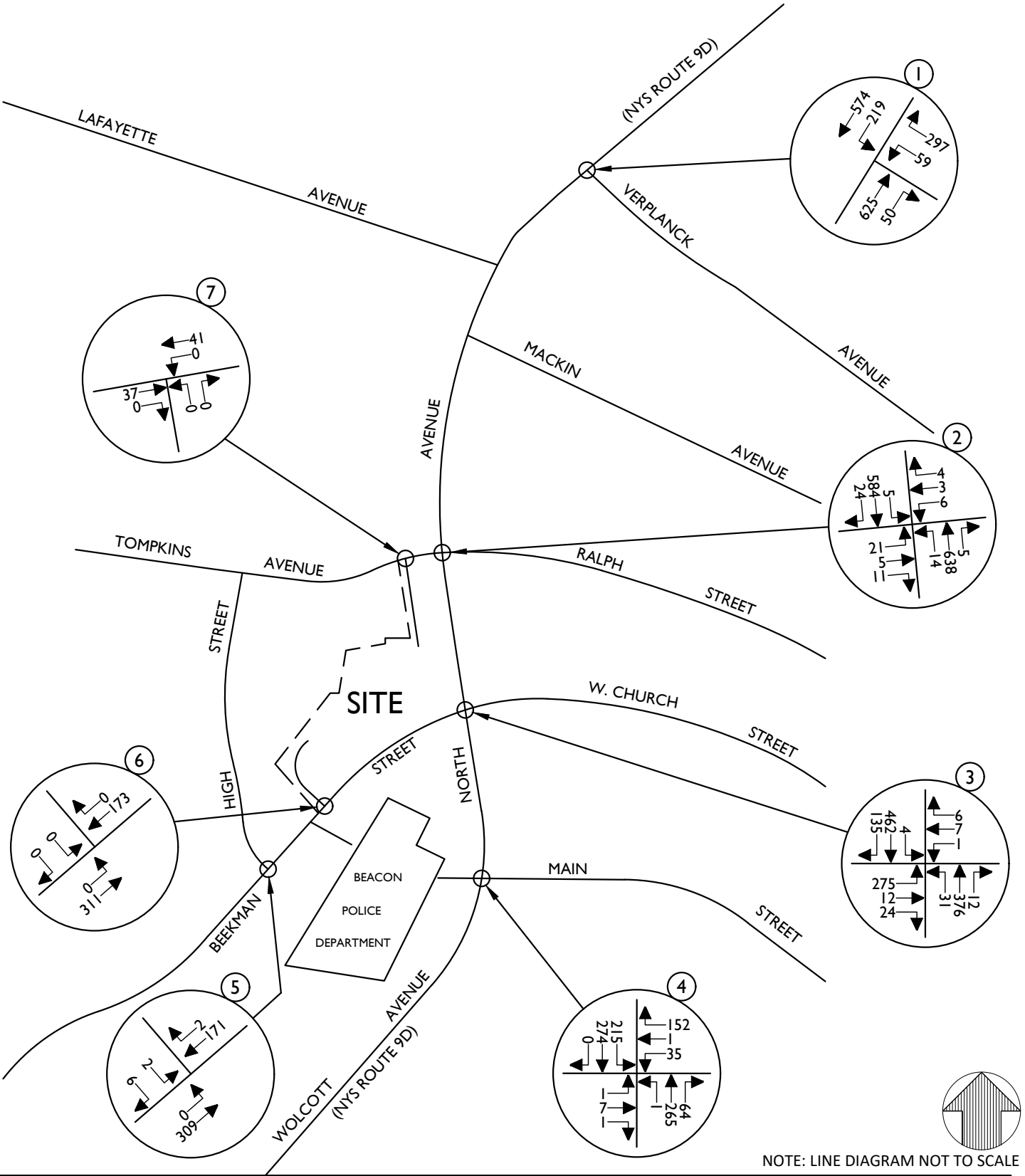
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2023 EXISTING TRAFFIC VOLUMES
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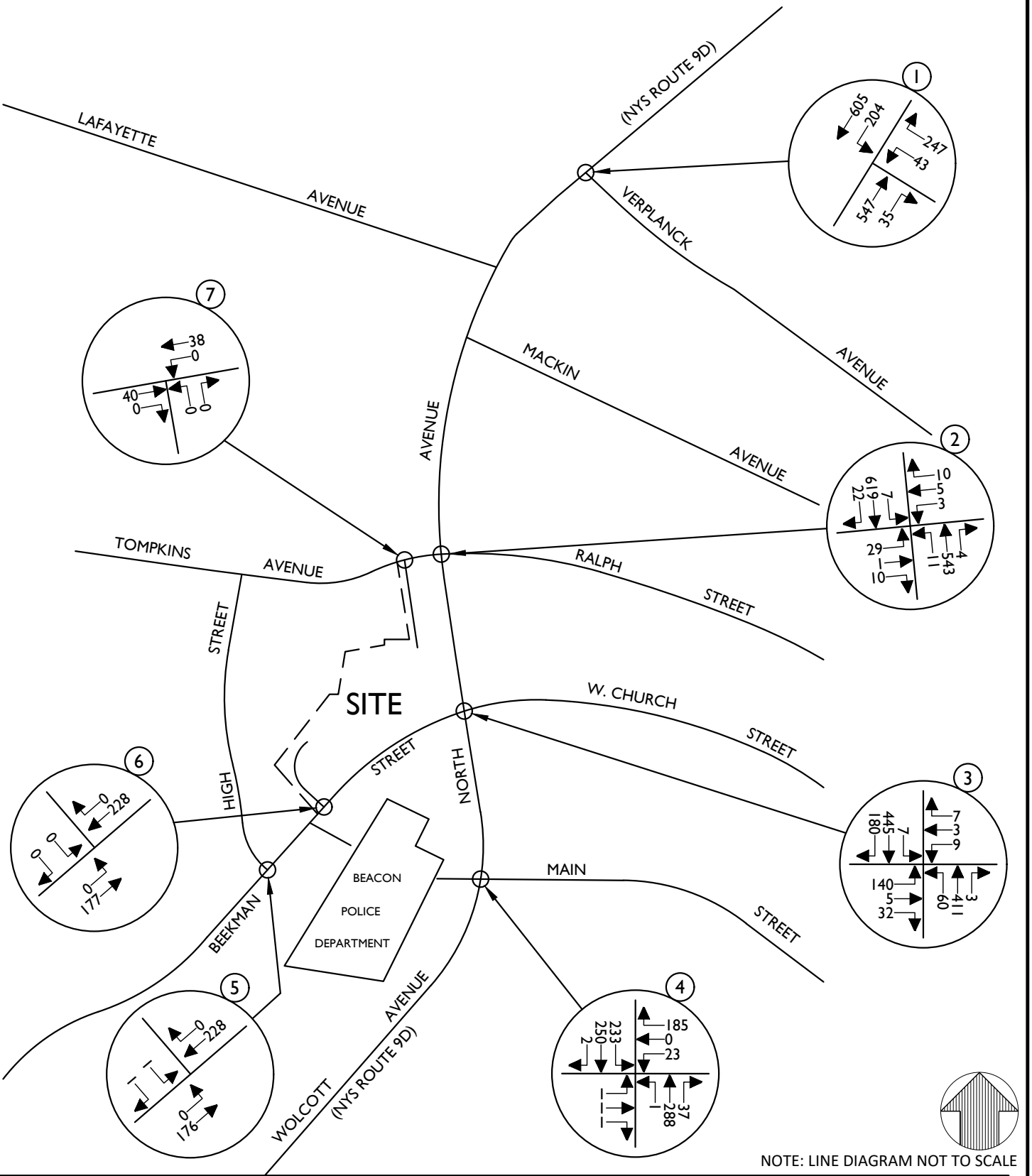
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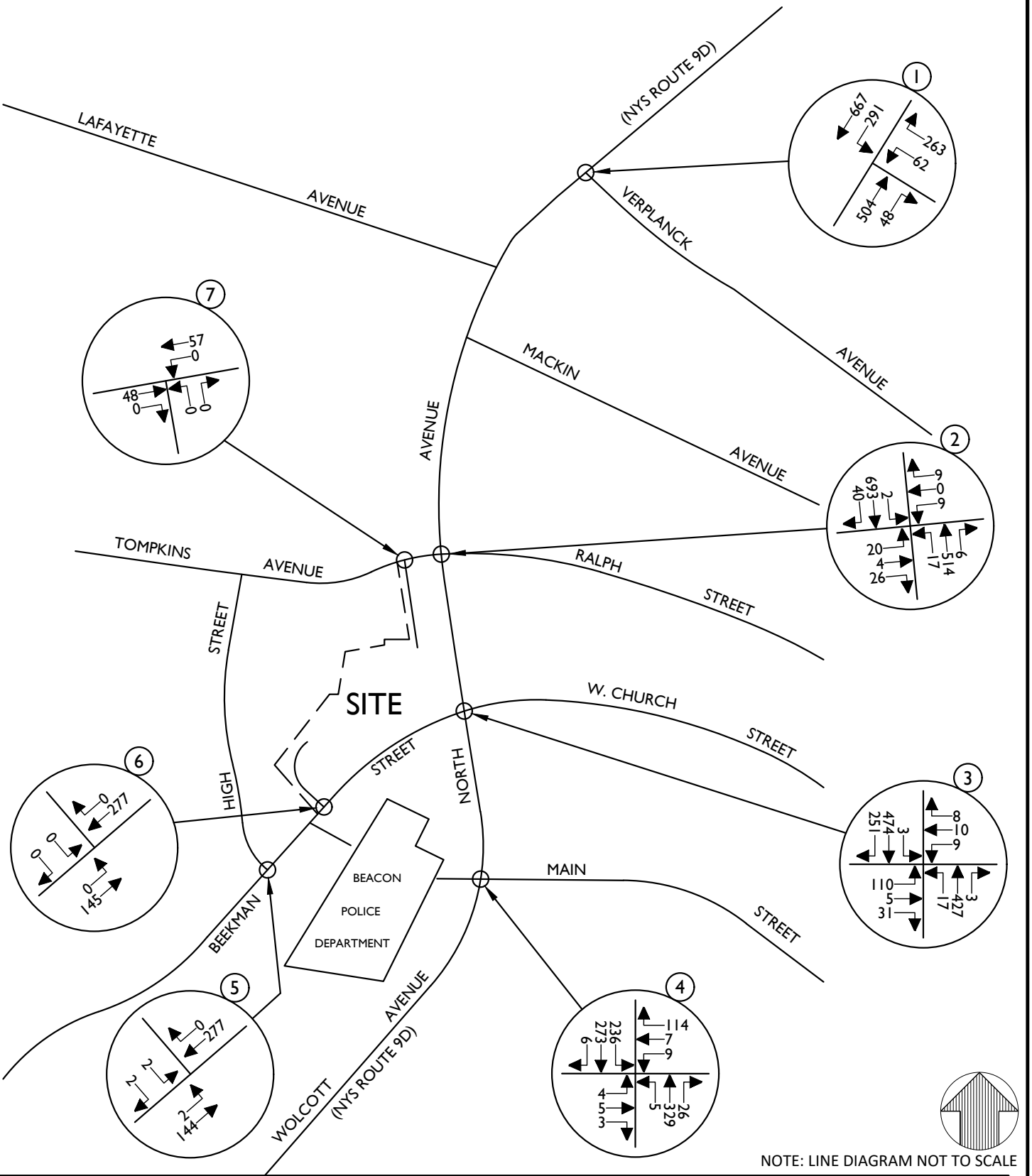
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2023 EXISTING TRAFFIC VOLUMES
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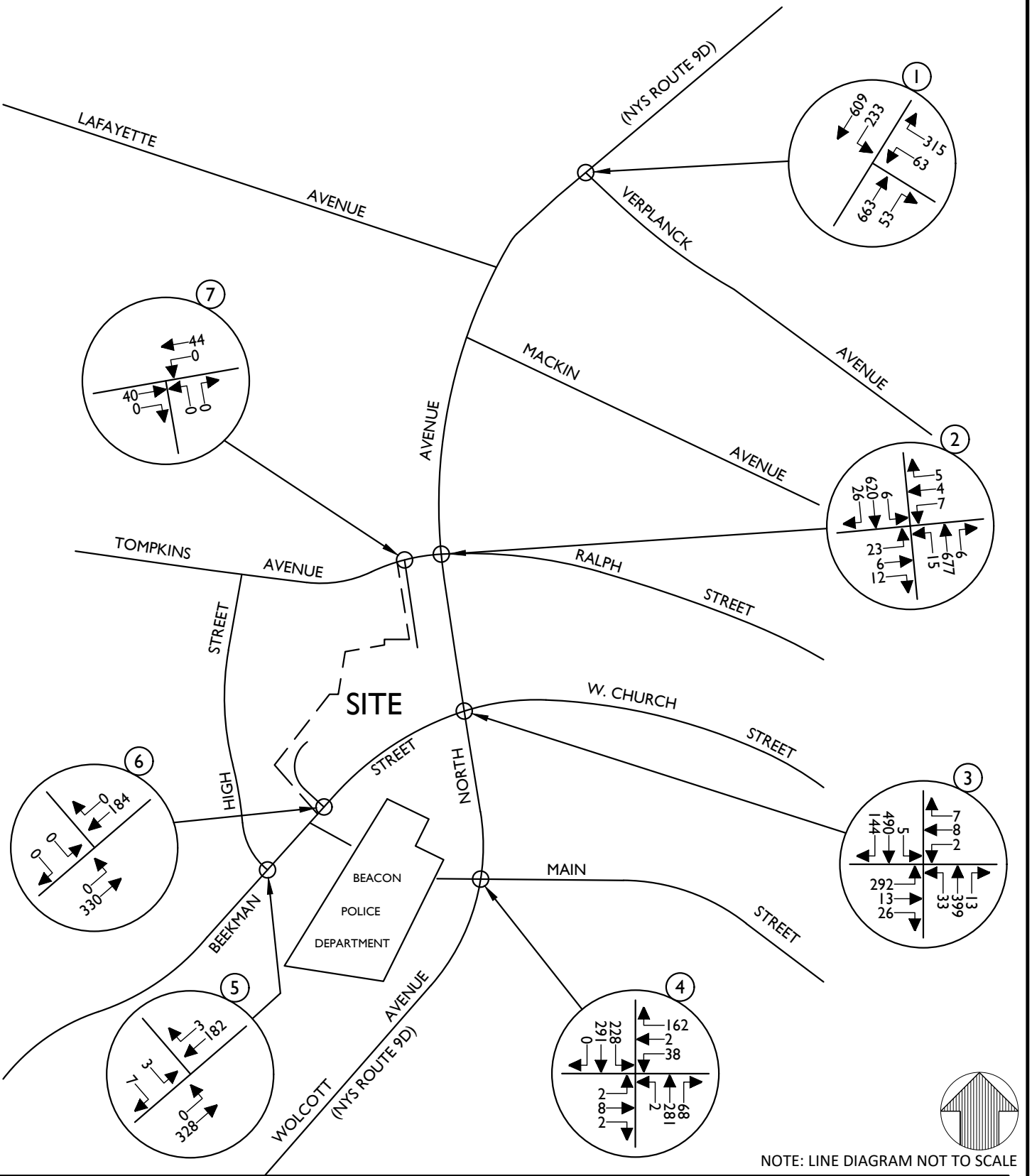
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2026 PROJECTED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

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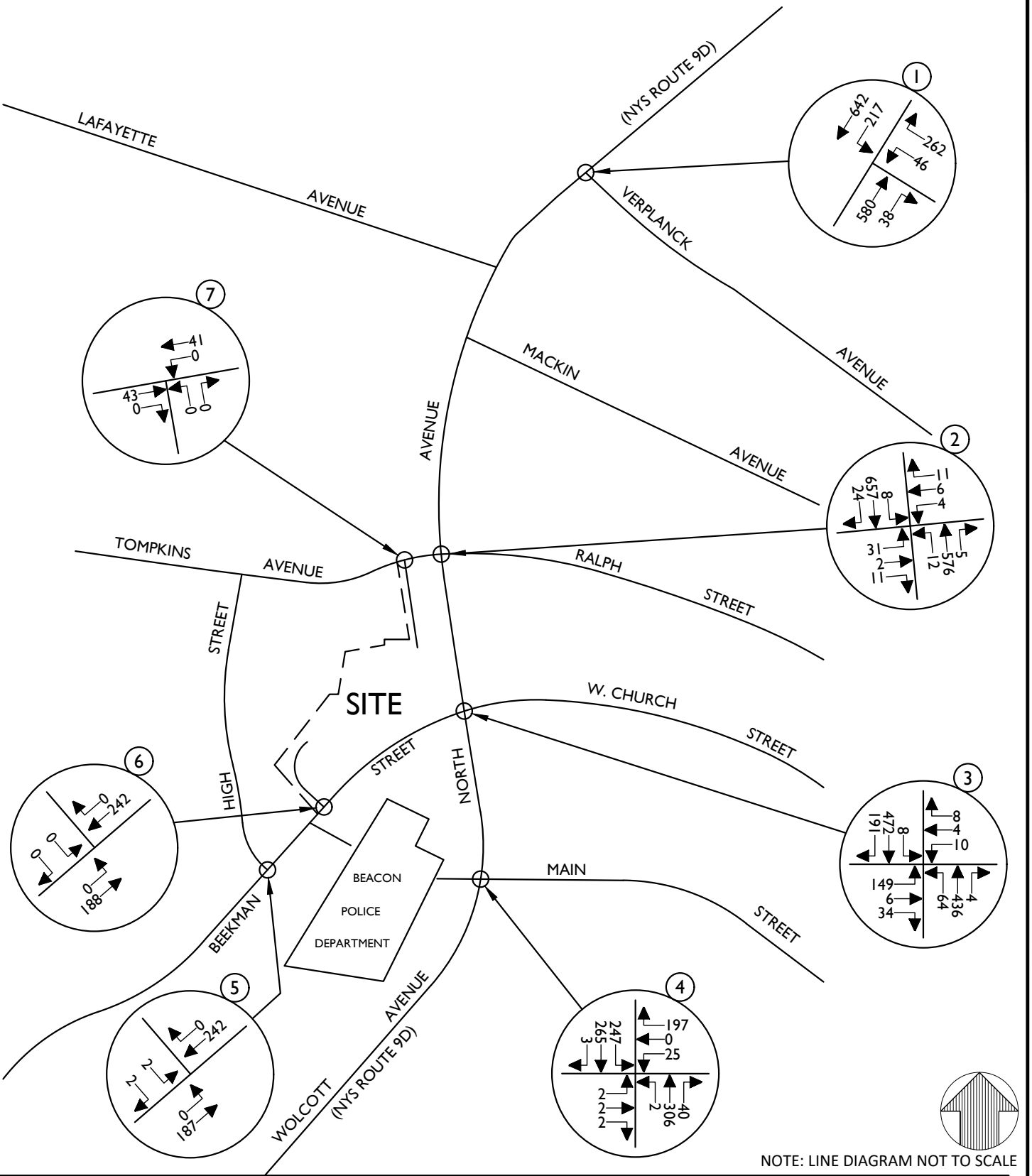
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2026 PROJECTED TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER: 6

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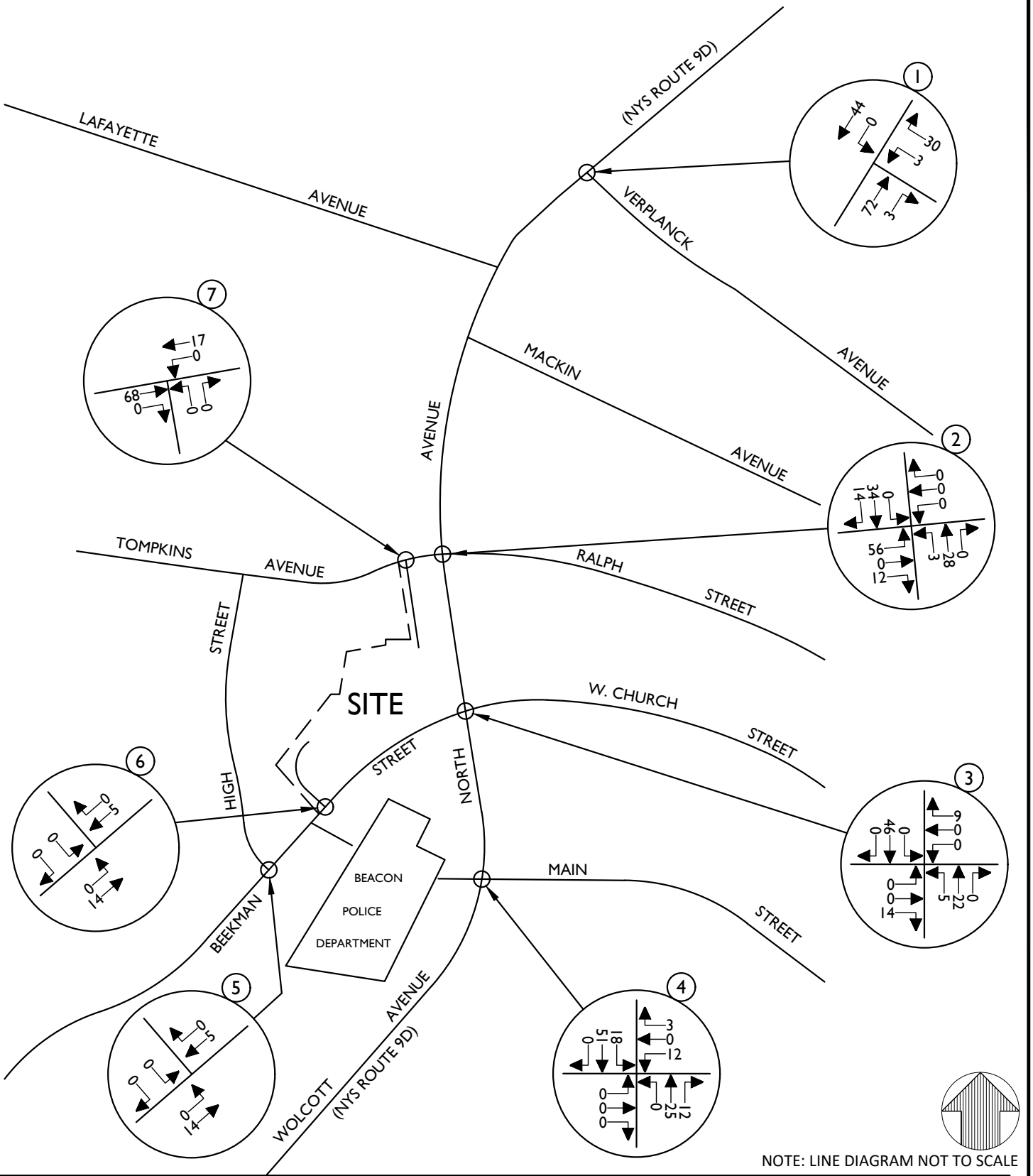
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SHEET TITLE: FIELD BOOK: XX PAGE:XX

2026 PROJECTED TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR

SHEET NUMBER: 7

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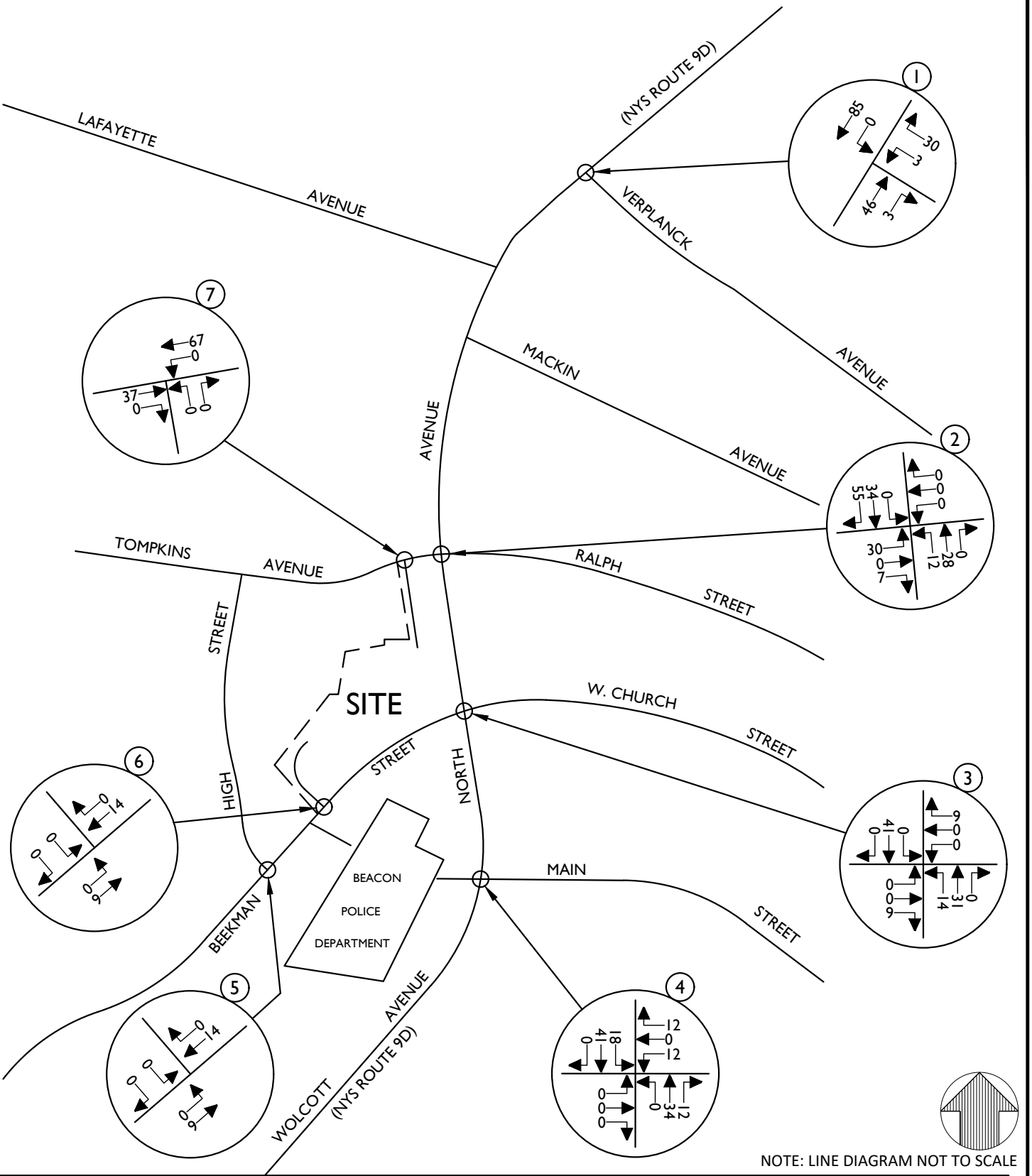
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SHEET TITLE: FIELD BOOK: XX PAGE:XX
OTHER DEVELOPMENT
TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER: 8

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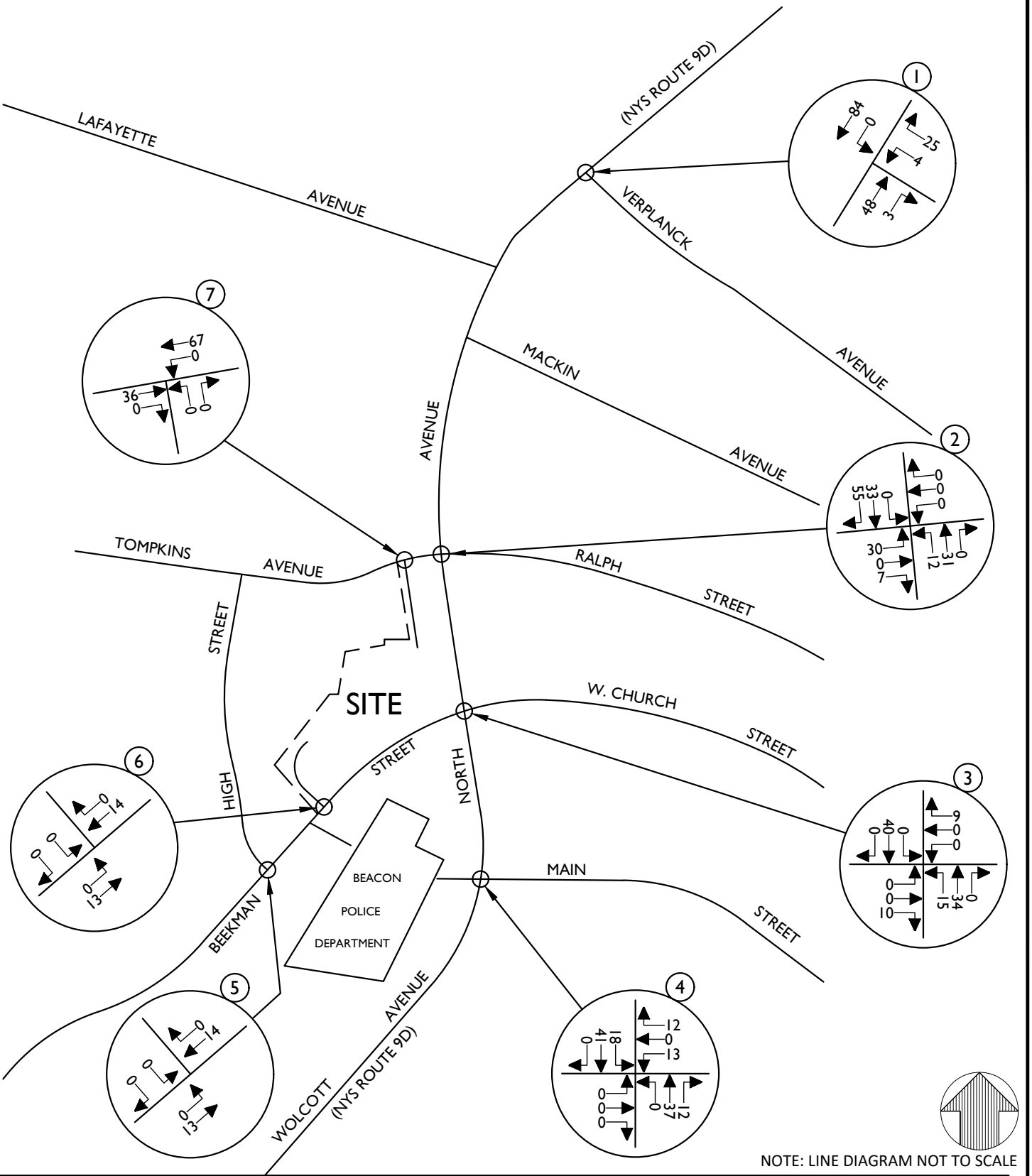
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SHEET TITLE: FIELD BOOK: XX PAGE:XX
OTHER DEVELOPMENT
TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER: 9

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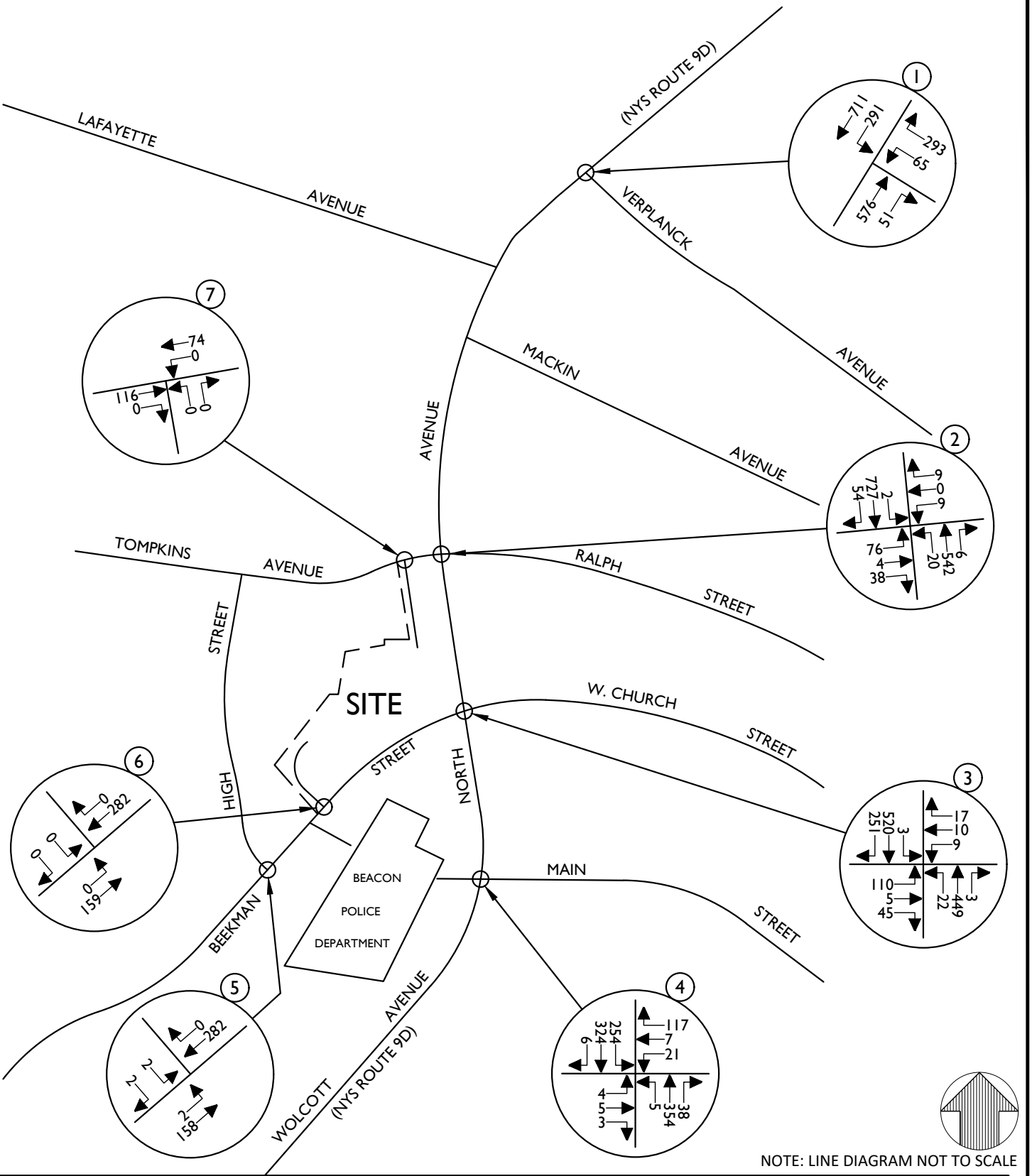
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SHEET TITLE: FIELD BOOK: XX PAGE:XX
OTHER DEVELOPMENT
TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR

SHEET NUMBER: 10

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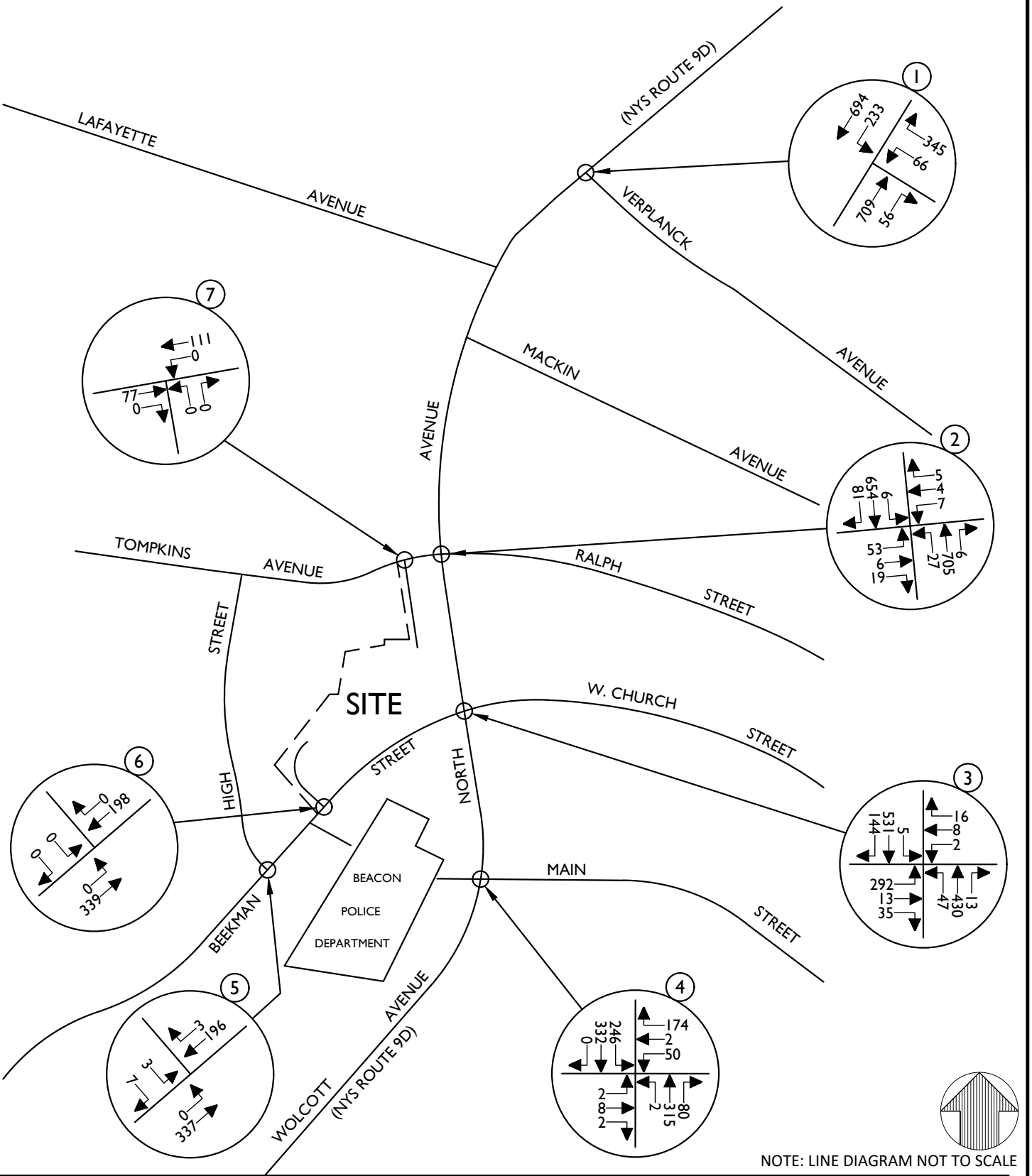
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SHEET TITLE: FIELD BOOK: XX PAGE:XX

2026 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER: 11

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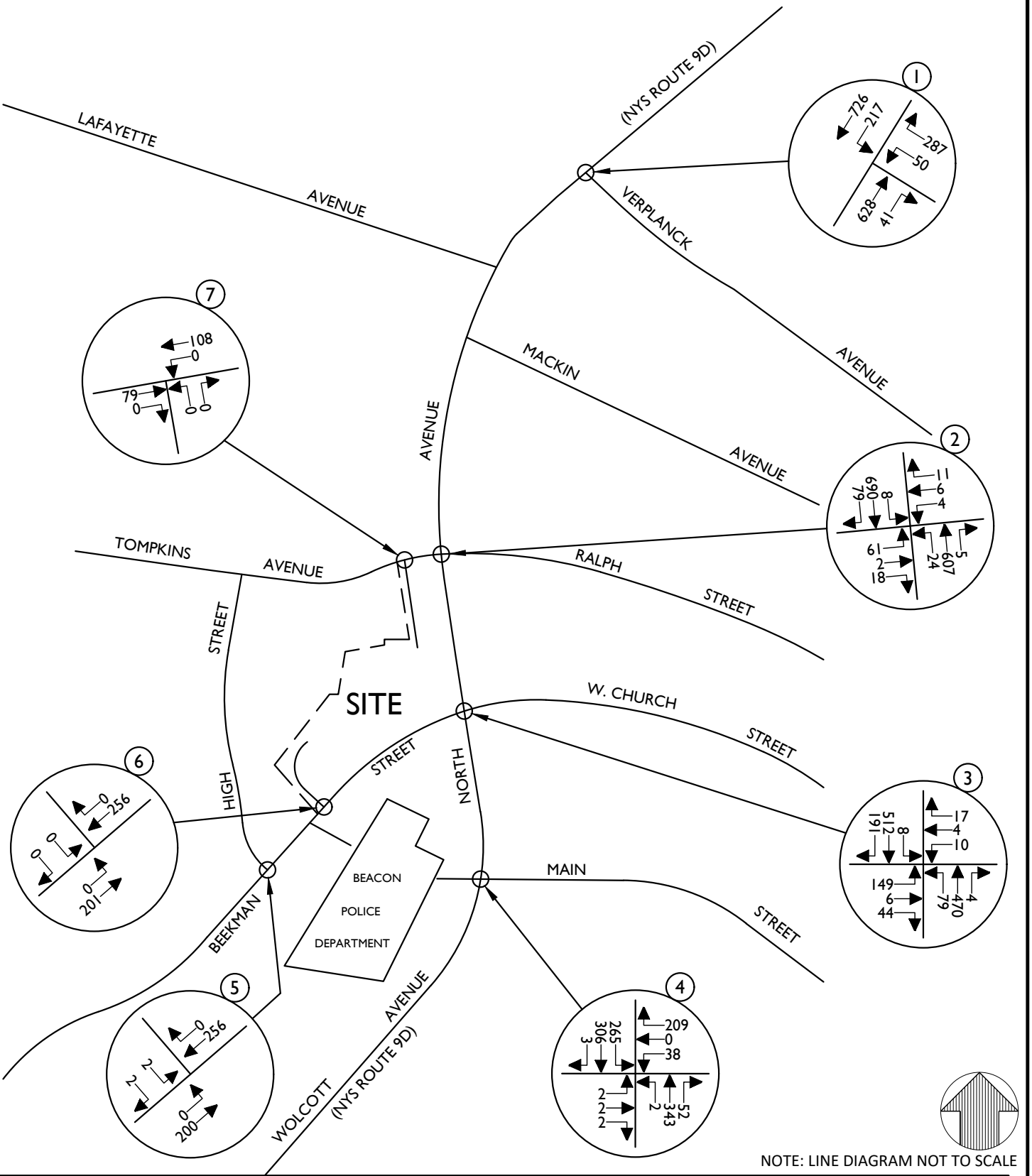
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2026 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER: 12

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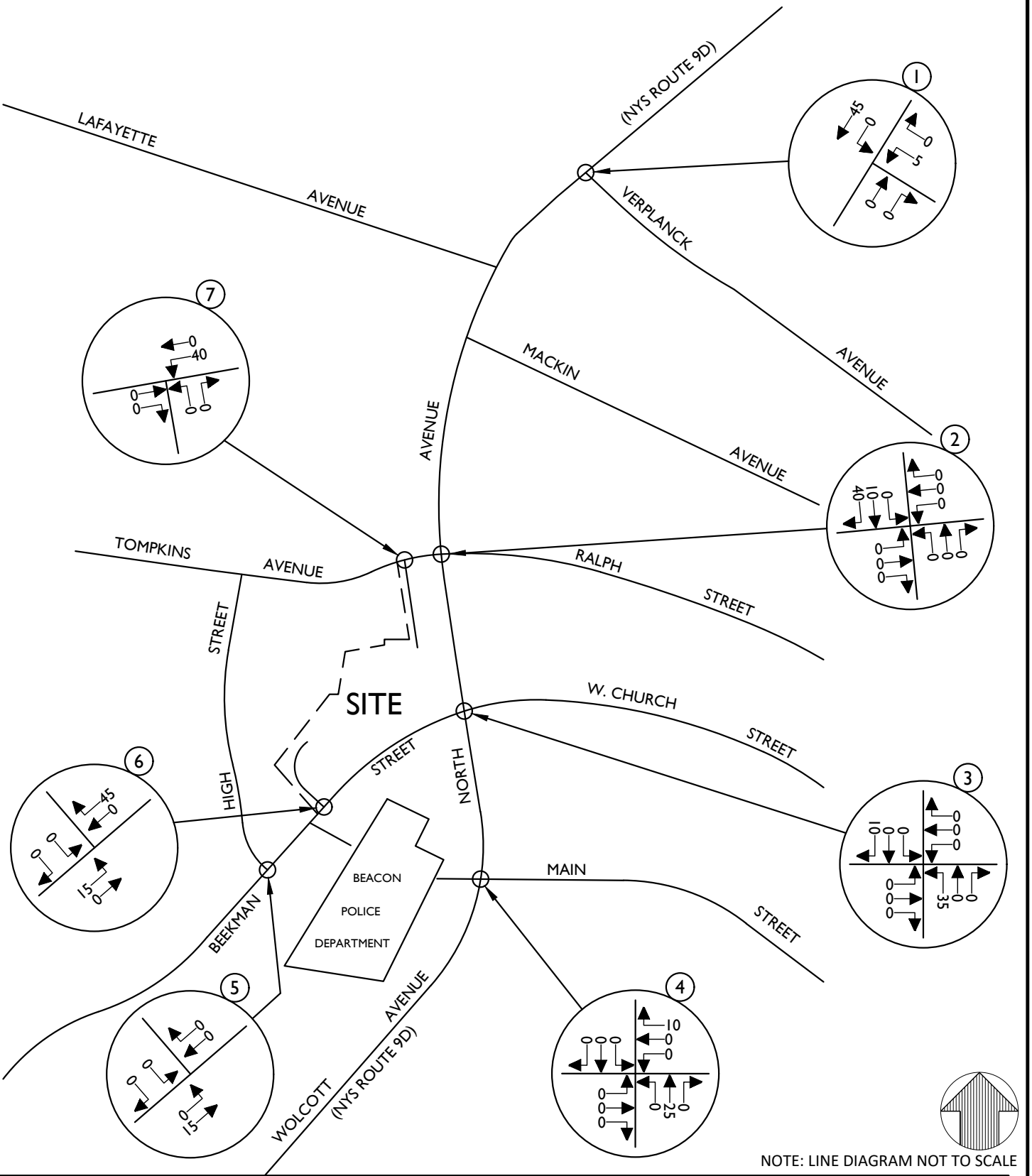
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2026 NO-BUILD TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR

SHEET NUMBER: 13

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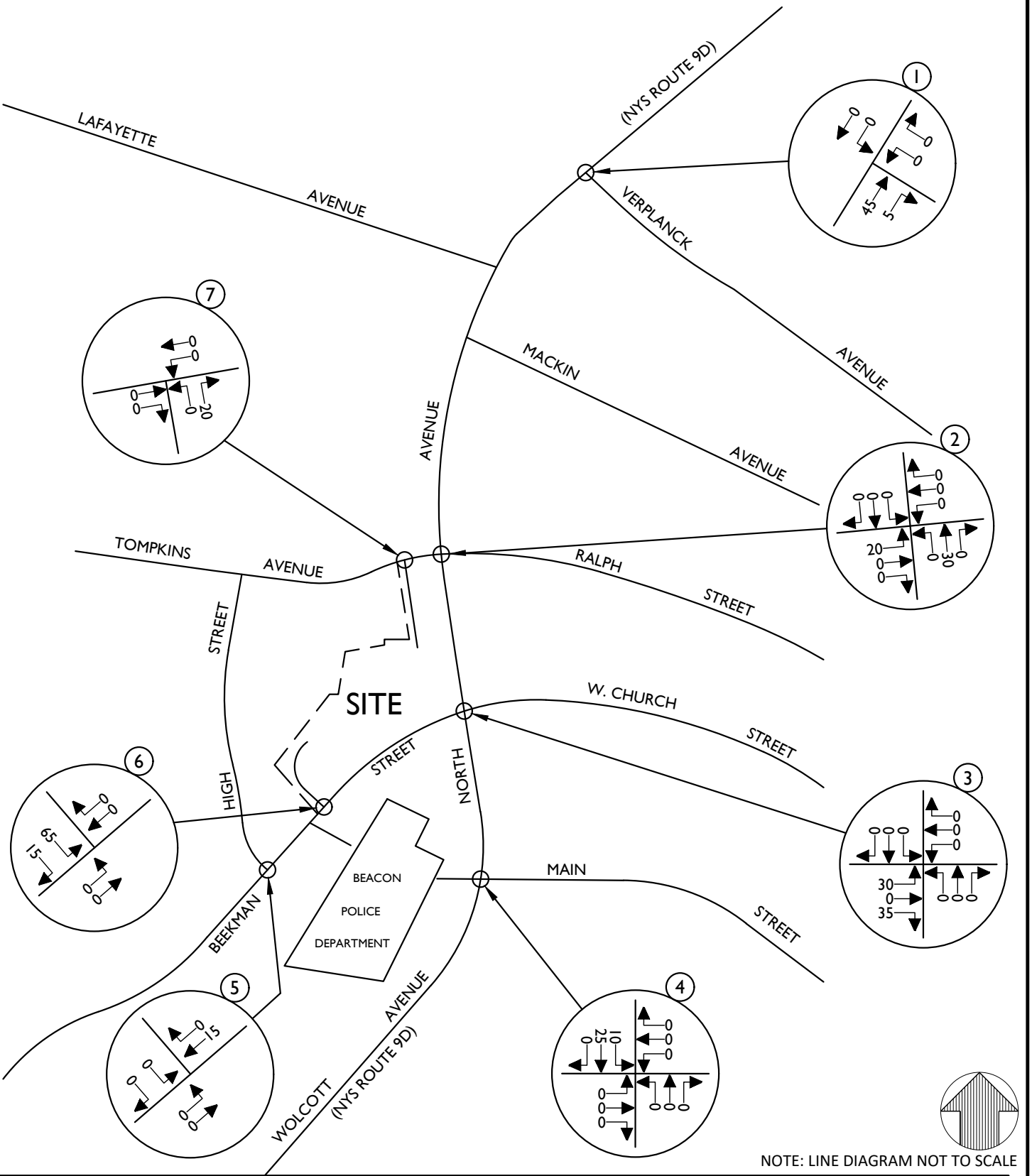
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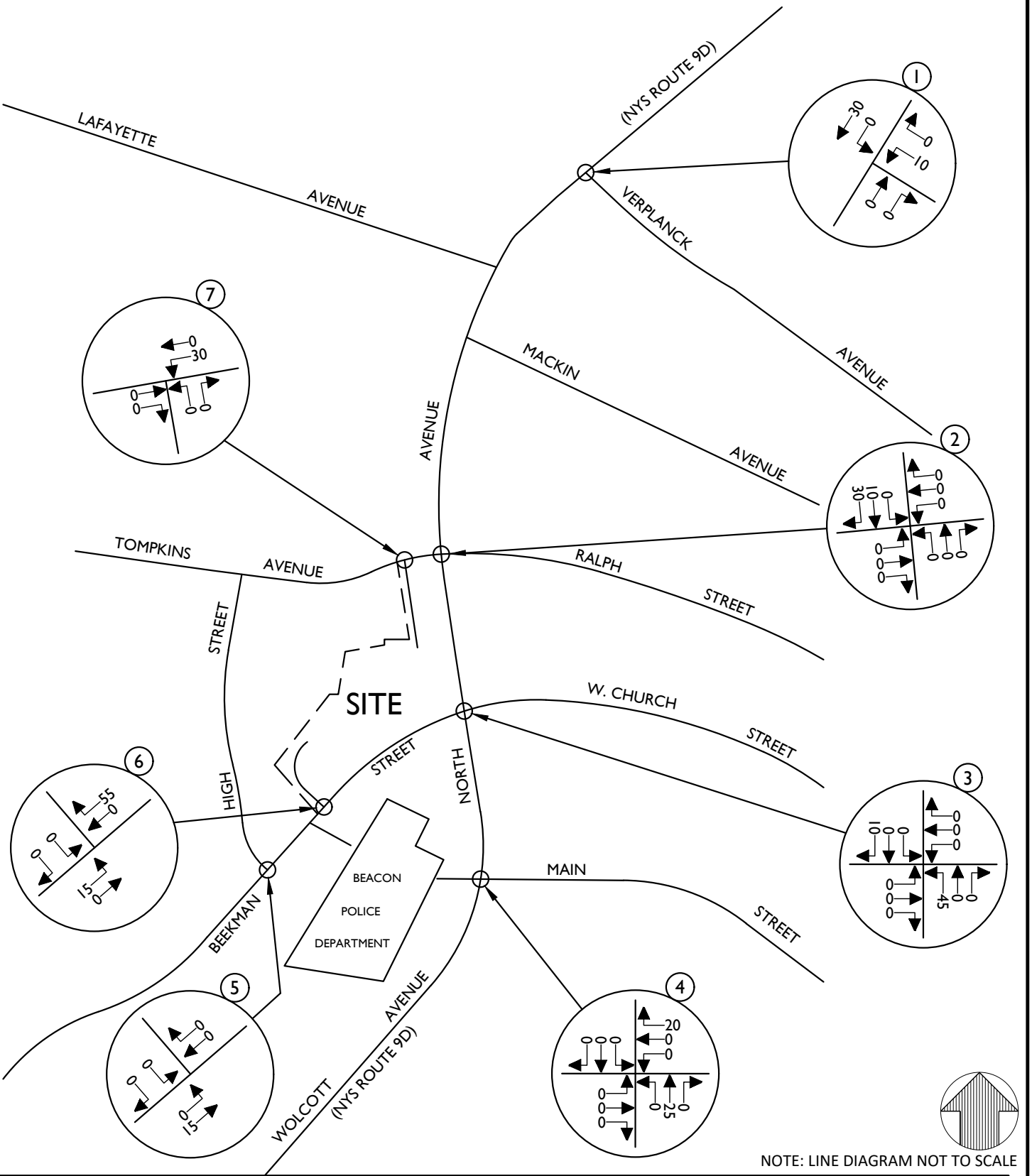
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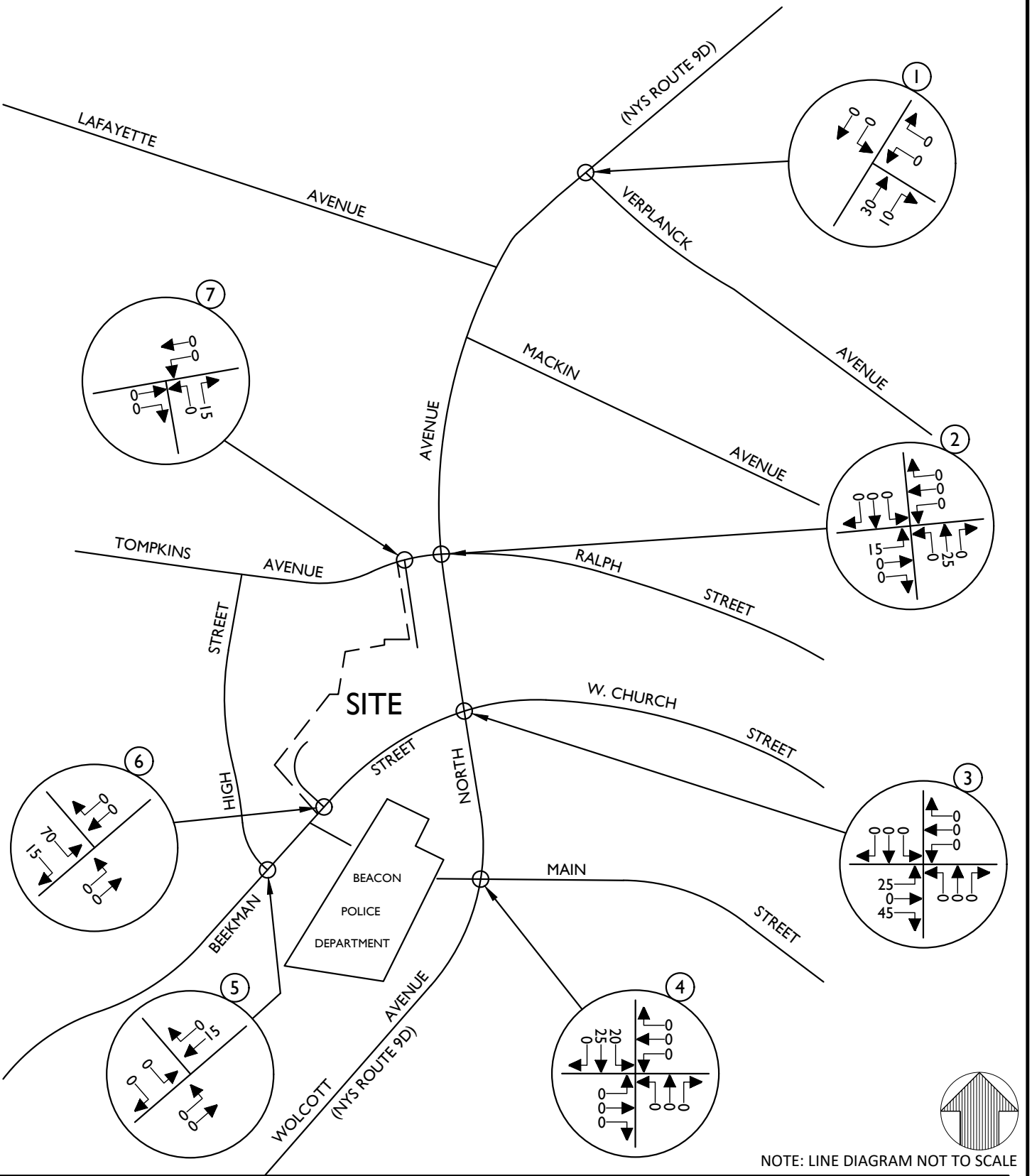
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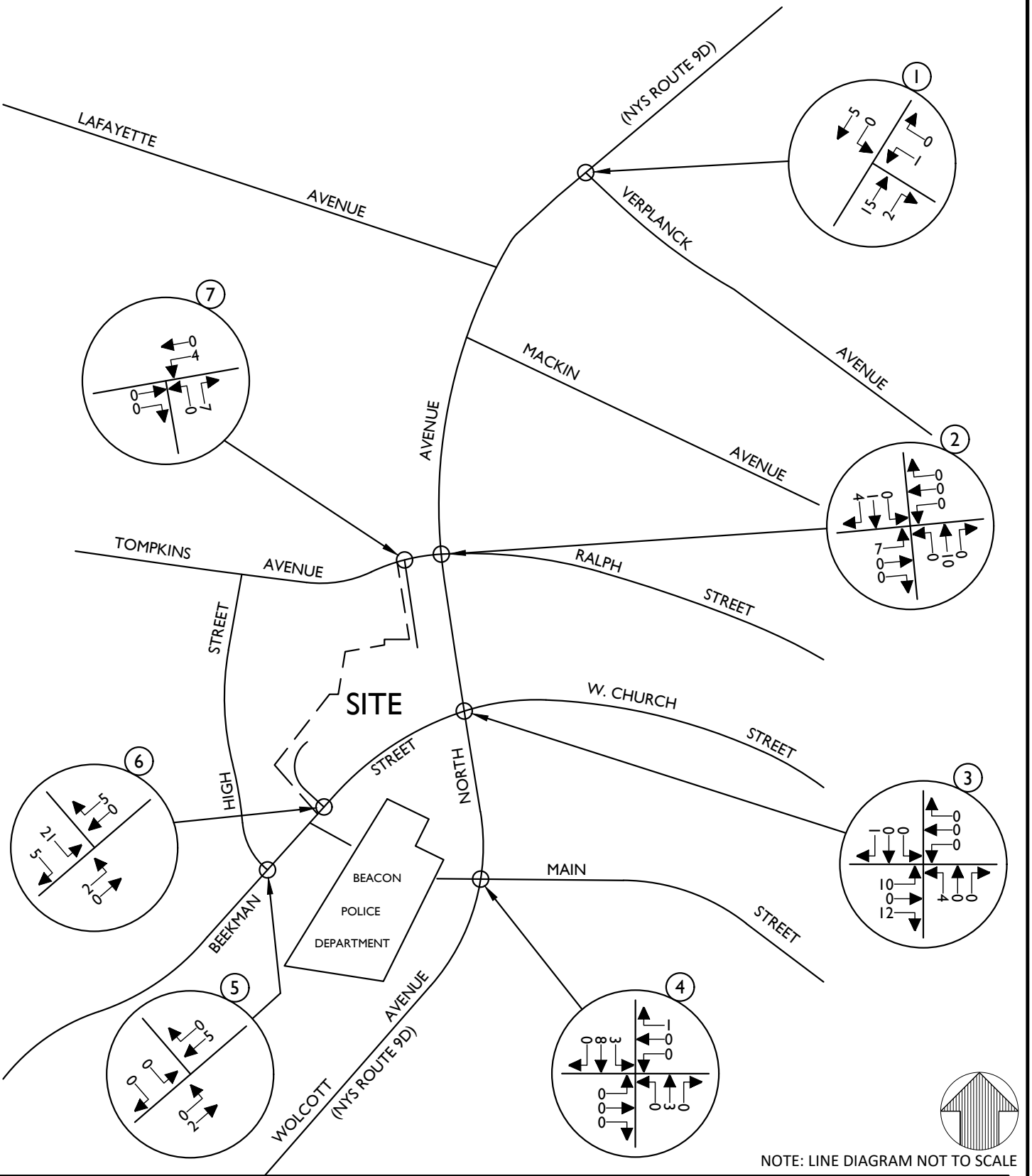
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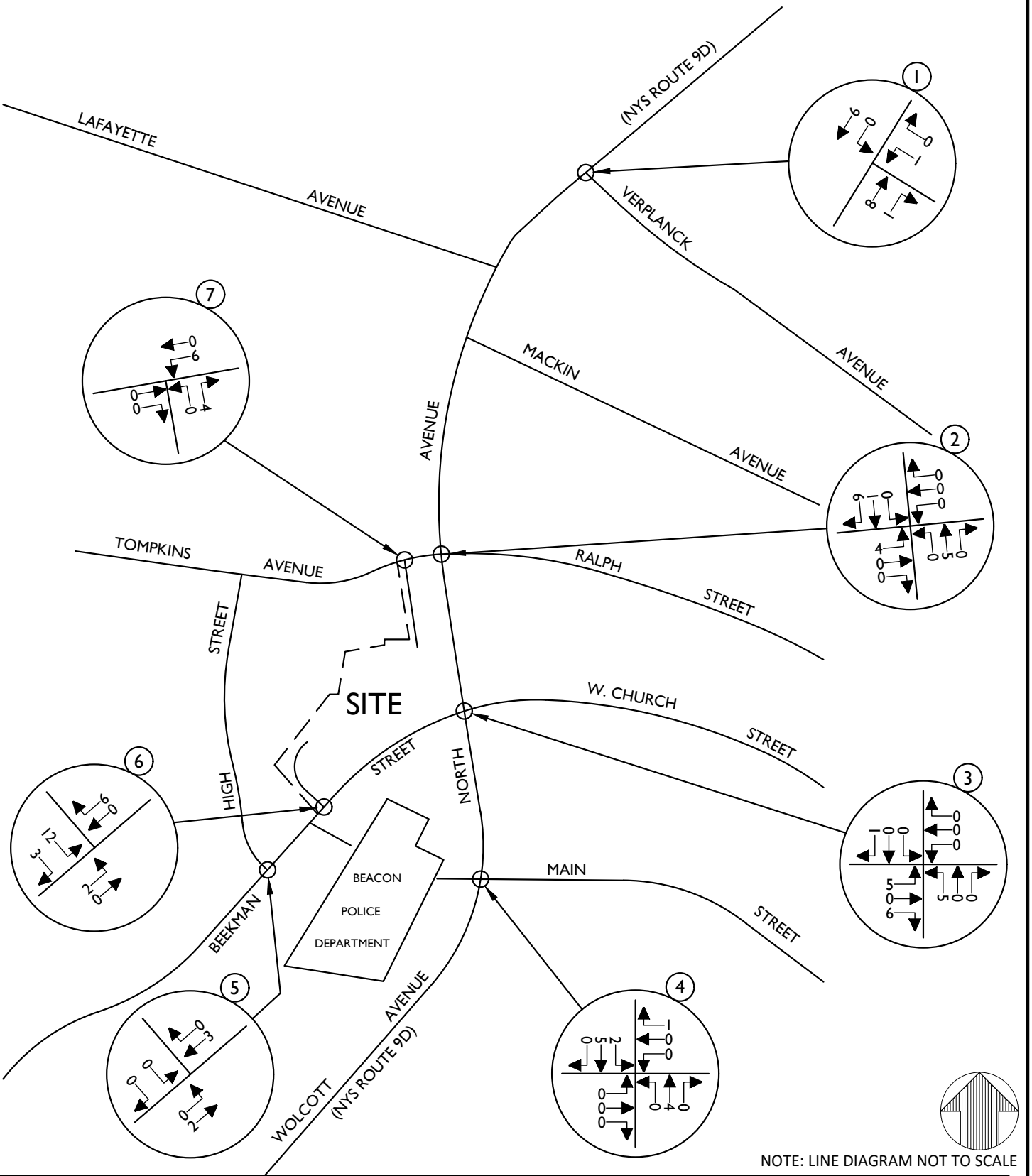
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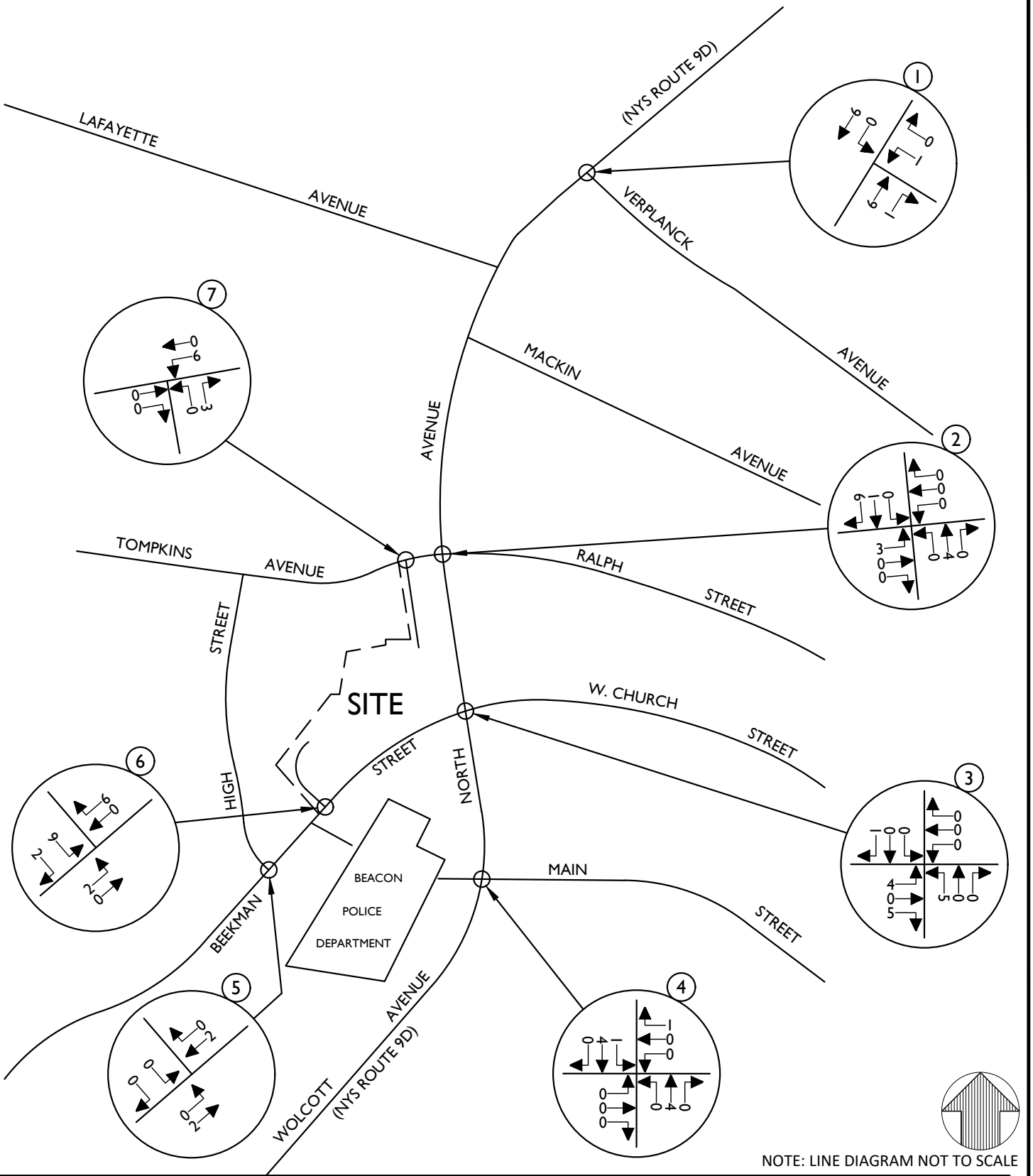
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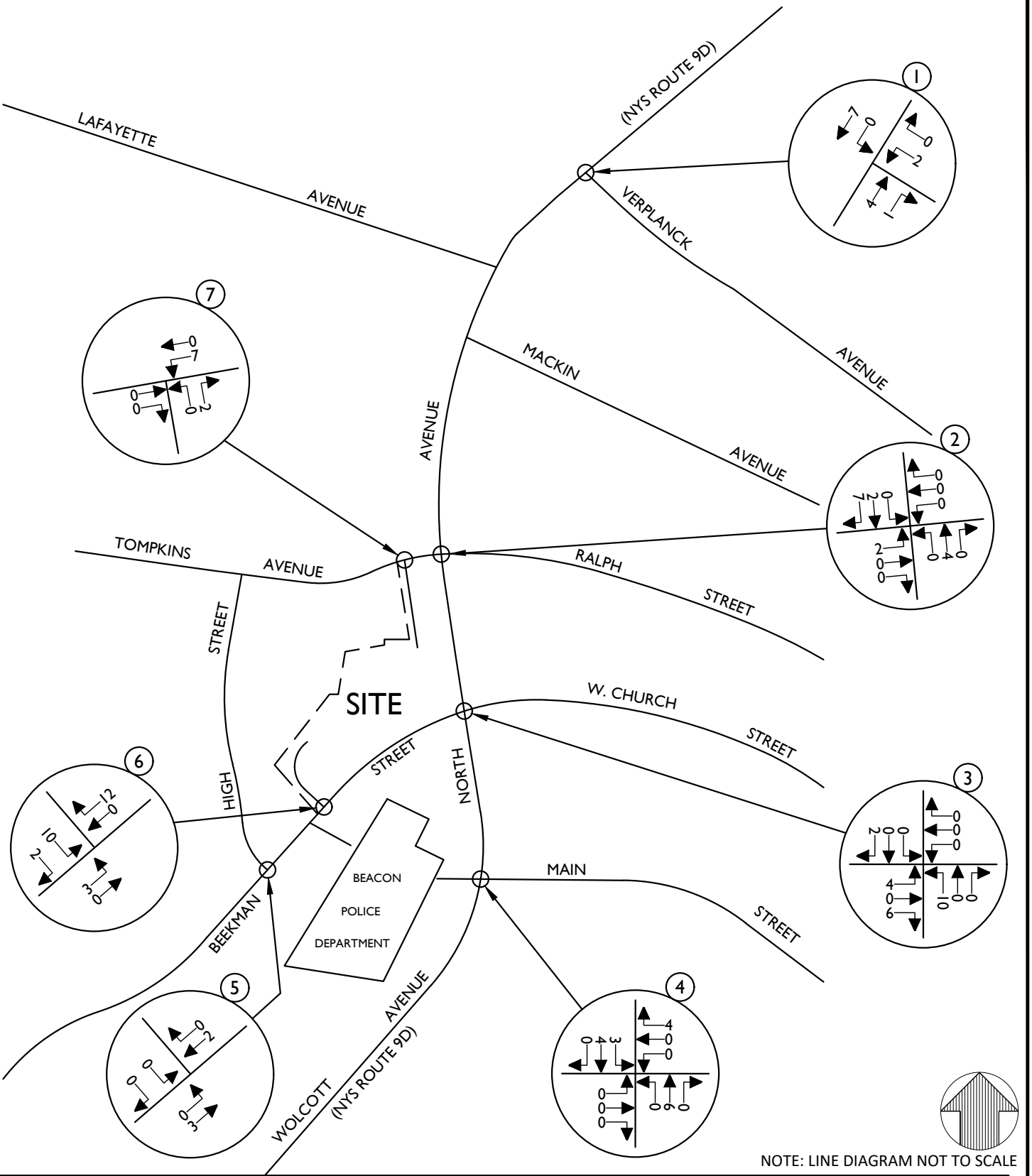
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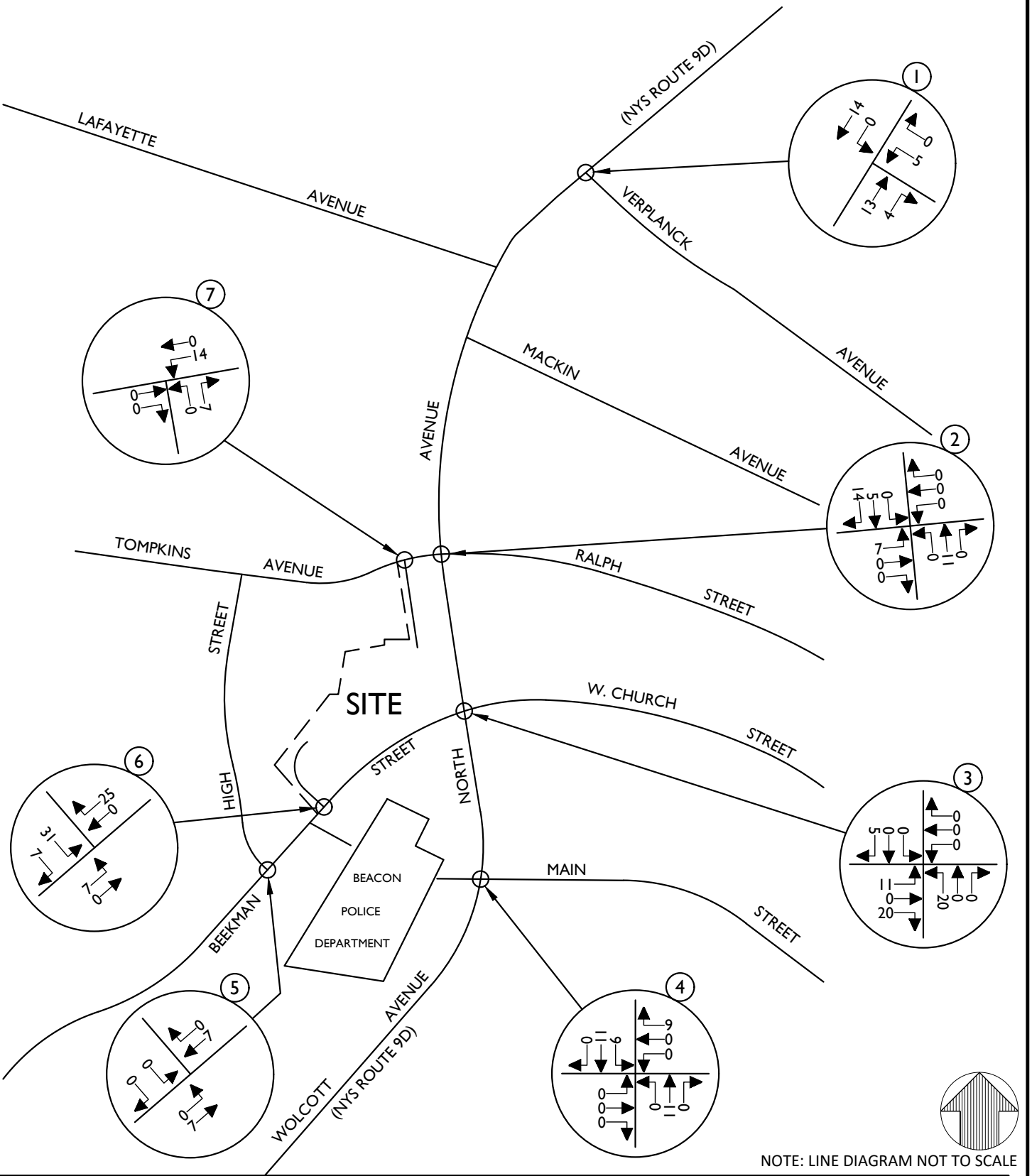
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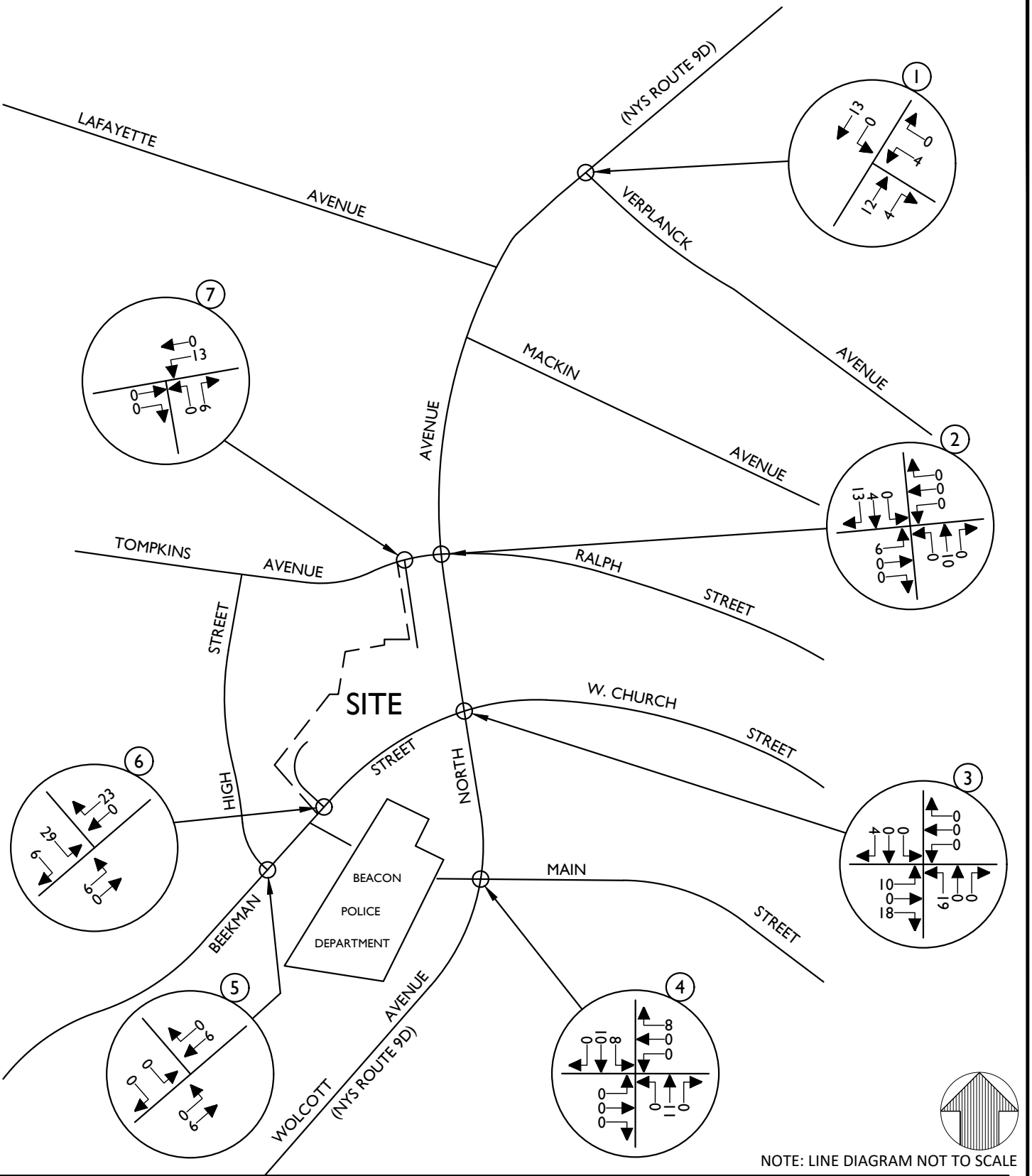
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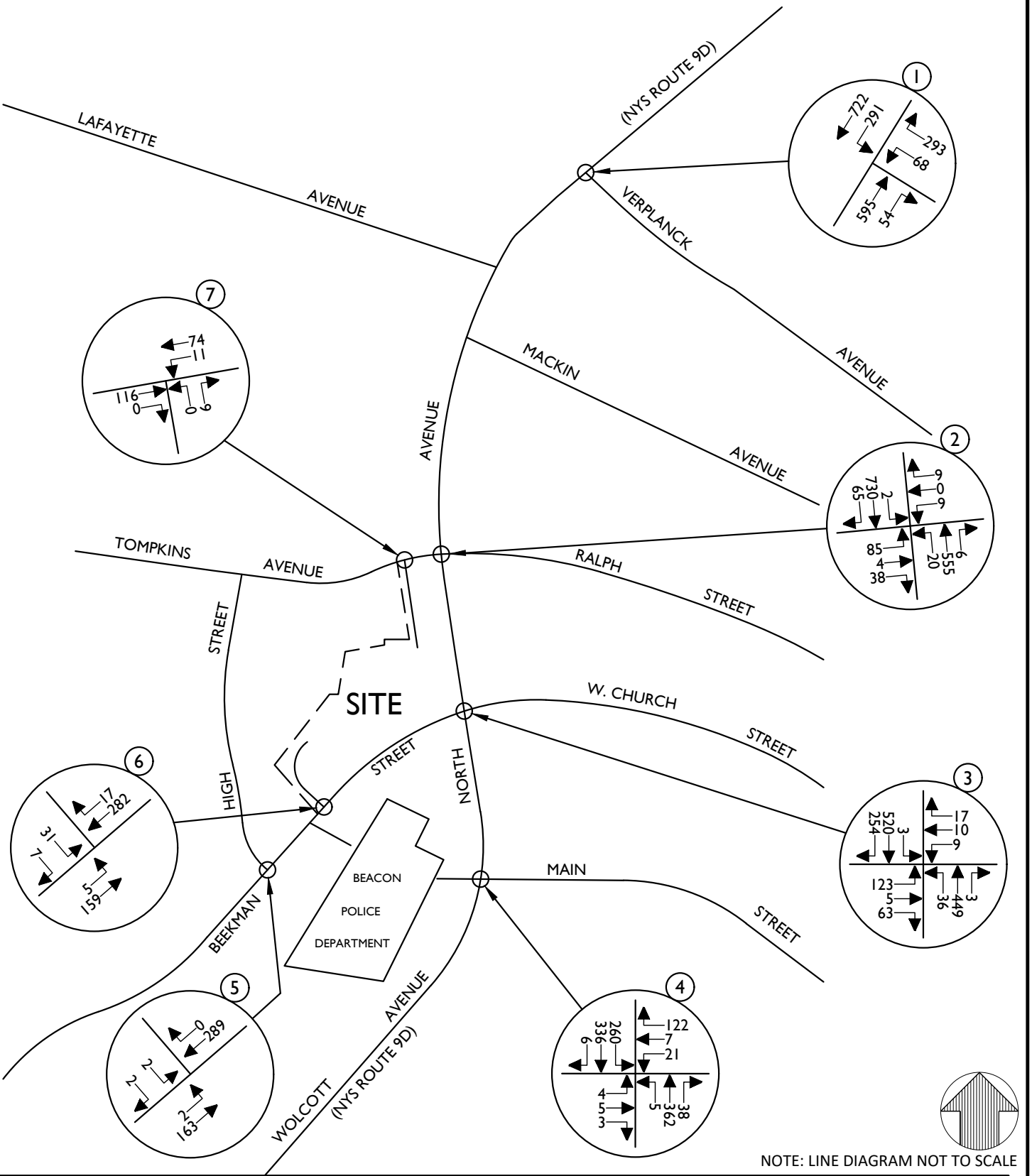
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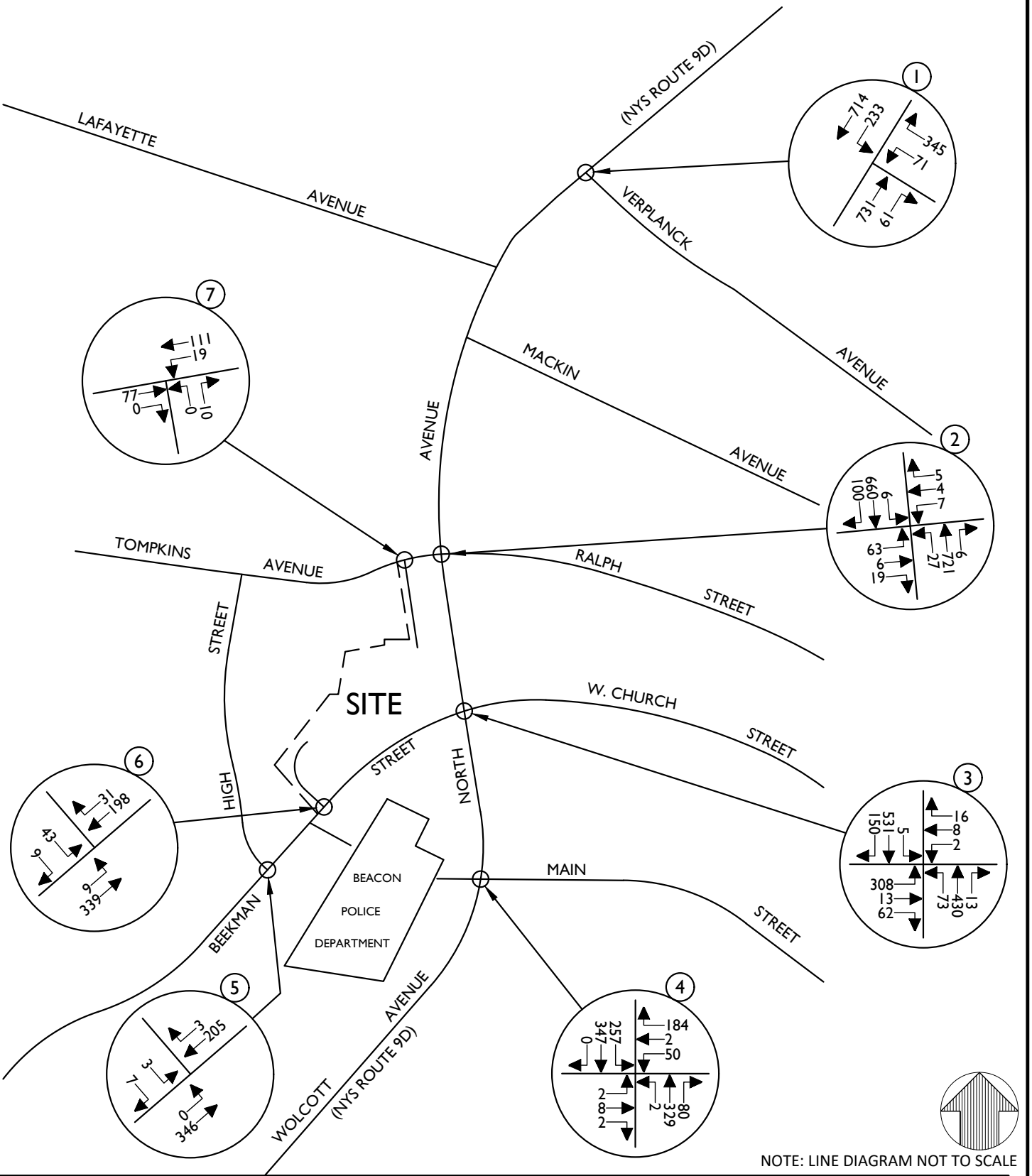
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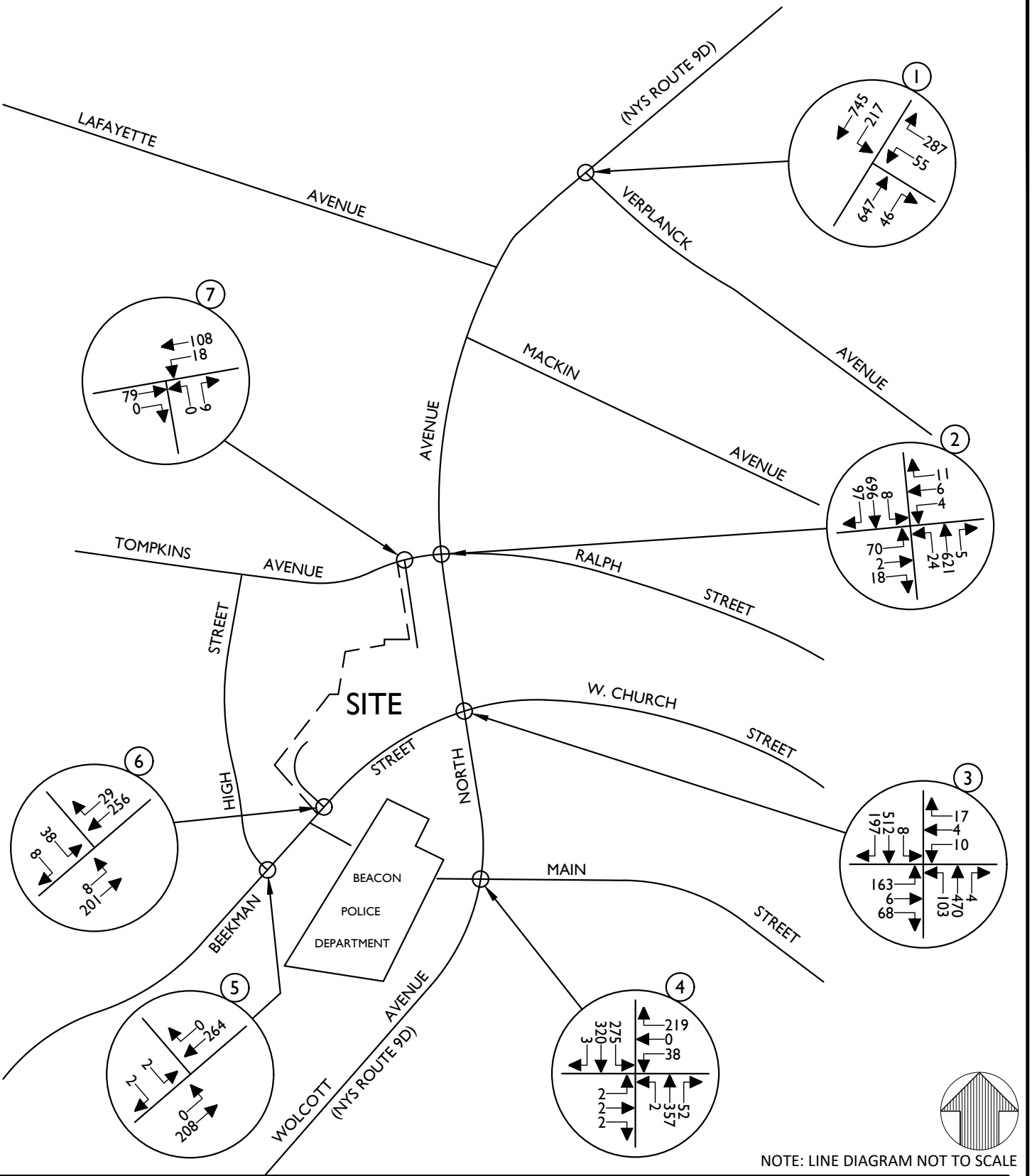
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Traffic & Parking Study

Appendix B | Tables

Table No. 1
Hourly Trip Generation Rates (HTGR) and
Anticipated Site Generated Traffic Volumes

45 Beekman Street & High Street City of Beacon, Dutchess County, New York	Entry			Exit		
	HTGR[1]	Volume	New Trips[2]	HTGR[1]	Volume	New Trips[2]
Residential (64 Units)						
Peak AM Hour	0.15	10	10	0.51	33	33
Peak PM Hour	0.48	31	31	0.28	18	18
Saturday Peak Hour	0.22	14	14	0.22	14	14
Commercial (14,088 Sq. Ft.)						
Peak AM Hour	1.56	22	22	0.99	14	14
Peak PM Hour	3.55	50	45	3.48	49	44
Saturday Peak Hour	3.34	47	42	3.27	46	41
Total						
Peak AM Hour	-	32	32	-	47	47
Peak PM Hour	-	81	76	-	67	62
Saturday Peak Hour	-	61	56	-	60	55

NOTES:

1) THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 11TH EDITION, 2021. ITE LAND USE CODE - 220 - MULTIFAMILY HOUSING (LOW-RISE) AND ITE LAND USE CODE - 822 - STRIP RETAIL PLAZA (<40K).

2) "NEW TRIPS" INCLUDES A 10% INTERNAL TRIP CREDIT APPLIED TO THE RETAIL LAND USE FOR THE PEAK PM AND SATURDAY PEAK HOURS TO ACCOUNT FOR TRIPS BETWEEN THE RESIDENTIAL AND COMMERCIAL PORTIONS OF THE SITE BASED ON NCHRP 684 INTERNAL TRIP CAPTURE ESTIMATION TOOL ANALYSIS AS SUMMARIZED ON TABLES 1-A, 1-B AND 1-C.

TABLE 1-A

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	45 Beekman Street & High Street	**Organization:**	CED
Project Location:	City of Beacon, New York	**Performed By:**	RGD
Scenario Description:	Weekday AM	**Date:**	9/28/2023
Analysis Year:	N/A	**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	822	14,088		36	22	14
Restaurant				0		
Cinema/Entertainment				0		
Residential	220		65	43	10	33
Hotel				0		
All Other Land Uses[2]				0		
				79	32	47

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	79	32	47
Internal Capture Percentage	0%	0%	0%
External Vehicle-Trips[5]	79	32	47
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	0%	0%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	0%	0%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

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TABLE 1-A

Project Name:	45 Beekman Street & High Street
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	22	22	1.00	14	14
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	10	10	1.00	33	33
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	4		2	0	2	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	7	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	2		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	4	0	0		0
Hotel	0	1	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	0	22	22	22	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	10	10	10	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	0	14	14	14	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	33	33	33	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

TABLE 1-B

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	45 Beekman Street & High Street	**Organization:**	CED
Project Location:	City of Beacon, New York	**Performed By:**	RGD
Scenario Description:	Weekday PM	**Date:**	9/28/2023
Analysis Year:	N/A	**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	822	14,088		99	50	49
Restaurant				0		
Cinema/Entertainment				0		
Residential	220		65	49	31	18
Hotel				0		
All Other Land Uses[2]				0		
				148	81	67

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	13	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	5	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	148	81	67
Internal Capture Percentage	24%	22%	27%
External Vehicle-Trips[5]	112	63	49
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	10%	27%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	42%	28%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

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TABLE 1-B

Project Name:	45 Beekman Street & High Street
Analysis Period:	**Weekday PM**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	50	50	1.00	49	49
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	31	31	1.00	18	18
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	1		14	2	13	2
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	8	4	0		1
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		4	0	0	1	0
Retail	0		0	0	14	0
Restaurant	0	25		0	5	0
Cinema/Entertainment	0	2	0		1	0
Residential	0	5	0	0		0
Hotel	0	1	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	5	45	50	45	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	13	18	31	18	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	13	36	49	36	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	5	13	18	13	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

TABLE 1-C

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	45 Beekman Street & High Street	**Organization:**	CED
Project Location:	City of Beacon, New York	**Performed By:**	RGD
Scenario Description:	Saturday Peak Hour	**Date:**	9/28/2023
Analysis Year:	N/A	**Checked By:**	
Analysis Period:	**Saturday Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	822	14,088		99	50	49
Restaurant				0		
Cinema/Entertainment				0		
Residential	220		65	49	31	18
Hotel				0		
All Other Land Uses[2]				0		
				148	81	67

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	13	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	5	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	148	81	67
Internal Capture Percentage	24%	22%	27%
External Vehicle-Trips[5]	112	63	49
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	10%	27%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	42%	28%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

TABLE 1-C

Project Name:	45 Beekman Street & High Street
Analysis Period:	**Saturday Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	50	50	1.00	49	49
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	31	31	1.00	18	18
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	1		14	2	13	2
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	8	4	0		1
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		4	0	0	1	0
Retail	0		0	0	14	0
Restaurant	0	25		0	5	0
Cinema/Entertainment	0	2	0		1	0
Residential	0	5	0	0		0
Hotel	0	1	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	5	45	50	45	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	13	18	31	18	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	13	36	49	36	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	5	13	18	13	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Table No. 2
Level of Service Summary Table
Weekday Peak AM Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
1	**NYS Route 9D & Verplanck Avenue**	**Signalized**											
	Verplanck Avenue	WB	L	0.27	B	17.7	0.30	C	21.7	0.32	C	22.7	1.0
			R	0.79	B	18.0	0.84	C	21.8	0.84	C	22.5	0.7
		WB Approach		**-**	***B***	***18.0***	**-**	***C***	***21.8***	**-**	***C***	***22.5***	***0.7***
	NYS Route 9D	NB	TR	0.82	B	15.2	0.87	B	17.7	0.88	B	18.0	0.3
		NB Approach		**-**	***B***	***15.2***	**-**	***B***	***17.7***	**-**	***B***	***18.0***	***0.3***
	NYS Route 9D	SB	L	0.78	B	19.9	0.82	C	24.0	0.82	C	24.7	0.7
			T	0.58	A	6.1	0.61	A	6.3	0.61	A	6.2	-0.1
		SB Approach		**-**	***B***	***10.8***	**-**	***B***	***11.4***	**-**	***B***	***11.5***	***0.1***
		Overall		**-**	**B**	**13.1**	**-**	**B**	**15.3**	**-**	**B**	**15.6**	**0.3**
2	**NYS Route 9D & Tompkins Avenue/ Ralph Street**	**Unsignalized**											
	Tompkins Avenue	EB	LTR	0.18	C	21.2	0.68	F	59.1	0.77	F	72.9	13.8
	Ralph Street	WB	LTR	0.09	D	25.4	0.13	D	34.0	0.14	D	34.9	0.9
	NYS Route 9D	NB	LTR	0.02	A	9.2	0.03	A	9.6	0.03	A	9.7	0.1
	NYS Route 9D	SB	LTR	0.00	A	8.5	0.00	A	8.7	0.00	A	8.8	0.1
	<u>With Signalization</u>												
	Tompkins Avenue	EB	LTR	-	-	-	0.49	D	38.6	0.46	D	36.8	-1.8
		EB Approach		-	-	-	**-**	***D***	***38.6***	**-**	***D***	***36.8***	**-1.8**
	Ralph Street	WB	LTR	-	-	-	0.07	D	35.7	0.06	C	33.9	-1.8
		WB Approach		-	-	-	**-**	***D***	***35.7***	**-**	***C***	***33.9***	**-1.8**
	NYS Route 9D	NB	L	-	-	-	0.05	A	5.3	0.05	A	6.2	0.9
			TR	-	-	-	0.43	A	6.1	0.45	A	1.0	-5.1
		NB Approach		-	-	-	**-**	***A***	***6.1***	**-**	***A***	***1.2***	**-4.9**
	NYS Route 9D	SB	L	-	-	-	0.00	A	4.5	0.00	A	4.5	0.0
			TR	-	-	-	0.56	A	8.0	0.59	A	9.3	1.3
		SB Approach		-	-	-	**-**	***A***	***8.0***	**-**	***A***	***9.3***	**1.3**
		Overall		**-**	**-**	**-**	**-**	**B**	**10.0**	**-**	**A**	**8.8**	**-1.2**

Table No. 2
Level of Service Summary Table
Weekday Peak AM Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
3	**NYS Route 9D &**	**Signalized**											
	Beekman Street/W. Church Street												
	Beekman Street	EB	LT	0.48	C	30.0	0.50	C	27.6	0.53	C	25.9	-1.7
			R	0.11	C	25.1	0.13	C	21.5	0.15	B	19.2	-2.3
		EB Approach		**-**	***C***	***29.0***	**-**	***C***	***25.9***	**-**	***C***	***23.7***	***-2.2***
	W. Church Street	WB	LTR	0.12	C	25.4	0.15	C	22.2	0.14	C	20.2	-2.0
		WB Approach		**-**	***C***	***25.4***	**-**	***C***	***22.2***	**-**	***C***	***20.2***	***-2.0***
	NYS Route 9D	NB	L	0.03	B	19.7	0.05	C	23.4	0.09	C	26.2	2.8
			TR	0.64	C	25.4	0.71	C	27.6	0.71	C	27.5	-0.1
		NB Approach		**-**	***C***	***25.2***	**-**	***C***	***27.4***	**-**	***C***	***27.5***	***0.1***
	NYS Route 9D	SB	L	0.00	B	12.2	0.01	B	16.6	0.01	B	19.0	2.4
			TR	1.34	F	191.4	1.51	F	263.1	1.51	F	265.9	2.8
		SB Approach		**-**	***F***	***190.9***	**-**	***F***	***262.3***	**-**	***F***	***265.0***	***2.7***
		Overall		**-**	**F**	**115.3**	**-**	**F**	**153.0**	**-**	**F**	**150.5**	**-2.5**
	<u>With Signal Timing & Phasing Modifications</u>												
	Beekman Street	EB	LT	-	-	-	-	-	-	0.79	D	41.4	13.8
			R	-	-	-	-	-	-	0.32	D	35.0	13.5
		EB Approach		**-**	**-**	**-**	**-**	**-**	**-**	**-**	***D***	***39.3***	***13.4***
	W. Church Street	WB	LTR	-	-	-	-	-	-	0.56	D	45.3	23.1
		WB Approach		**-**	**-**	**-**	**-**	**-**	**-**	**-**	***D***	***45.3***	***23.1***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.15	B	14.4	-9.0
			TR	-	-	-	-	-	-	0.38	A	9.4	-18.2
		NB Approach		**-**	**-**	**-**	**-**	**-**	**-**	**-**	***A***	***9.7***	***-17.7***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.01	A	7.5	-9.1
			TR	-	-	-	-	-	-	0.84	C	20.7	-242.4
		SB Approach		**-**	**-**	**-**	**-**	**-**	**-**	**-**	***C***	***20.7***	***-241.6***
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**C**	**20.1**	**-132.9**

Table No. 2
Level of Service Summary Table
Weekday Peak AM Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
4	**NYS Route 9D &**	**Signalized**											
	Main Street/City Hall												
	City Hall	EB	LTR	0.05	C	28.4	0.07	C	28.2	0.07	C	28.0	-0.2
		EB Approach		***-***	***C***	***28.4***	***-***	***C***	***28.2***	***-***	***C***	***28.0***	***-0.2***
	Main Street	WB	LT	0.05	C	28.4	0.09	C	28.3	0.09	C	28.1	-0.2
			R	0.31	C	25.1	0.31	C	24.2	0.32	C	24.1	-0.1
		WB Approach		***-***	***C***	***25.5***	***-***	***C***	***25.0***	***-***	***C***	***24.8***	***-0.2***
	NYS Route 9D	NB	L	0.01	A	6.3	0.01	A	6.8	0.01	A	6.9	0.1
			TR	0.37	A	9.1	0.45	B	10.6	0.46	B	10.9	0.3
		NB Approach		***-***	***A***	***9.0***	***-***	***B***	***10.5***	***-***	***B***	***10.8***	***0.3***
	NYS Route 9D	SB	L	0.37	A	5.2	0.46	B	6.2	0.48	A	6.4	0.2
			TR	0.25	A	5.5	0.31	A	6.0	0.33	A	6.2	0.2
		SB Approach		***-***	***A***	***5.4***	***-***	***A***	***6.1***	***-***	***A***	***6.3***	***0.2***
		Overall		**-**	**A**	**9.5**	**-**	**B**	**10.3**	**-**	**B**	**10.5**	**0.2**
	<u>With Signal Timing & Cooridnation Modifications</u>												
	City Hall	EB	LTR	-	-	-	-	-	-	0.08	C	34.2	6.0
		EB Approach		-	-	-	-	-	-	***-***	***C***	***34.2***	***6.0***
	Main Street	WB	LT	-	-	-	-	-	-	0.10	C	34.3	6.0
			R	-	-	-	-	-	-	0.35	C	30.3	6.1
		WB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***C***	***31.0***	***6.0***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.01	A	6.4	-0.4
			TR	-	-	-	-	-	-	0.42	A	9.9	-0.7
		NB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***A***	***9.9***	***-0.6***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.46	A	6.0	-0.2
			TR	-	-	-	-	-	-	0.31	A	5.6	-0.4
		SB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***A***	***5.8***	***-0.3***
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**B**	**10.7**	**0.4**
5	**Beekman Street &**	**Unsignalized**											
	High Street	EB	LT	0.00	A	8.0	0.00	A	8.1	0.00	A	8.1	0.0
		SB	LR	0.00	B	10.2	0.01	B	10.4	0.01	B	10.5	0.1
6	**Beekman Street &**	**Unsignalized**											
	Site Access	EB	LT	-	-	-	-	-	-	0.01	A	8.1	-
		SB	LR	-	-	-	-	-	-	0.10	B	12.9	-
7	**Tompkins Avenue &**	**Unsignalized**											
	Site Access	WB	LT	-	-	-	-	-	-	0.01	A	7.5	-
		NB	LR	-	-	-	-	-	-	0.01	A	9.1	-

<u>NOTES:</u>

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C"

Table No. 2
Level of Service Summary Table
Weekday Peak PM Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
1	**NYS Route 9D & Verplanck Avenue**	**Signalized**											
	Verplanck Avenue	WB	L	0.21	C	21.2	0.23	C	26.6	0.26	C	28.2	1.6
			R	0.85	C	23.6	0.89	C	29.6	0.90	C	31.8	2.2
		WB Approach		***-***	***C***	***23.2***	***-***	***C***	***29.1***	***-***	***C***	***31.2***	***2.1***
	NYS Route 9D	NB	TR	0.88	B	19.2	0.93	C	30.1	0.94	C	33.1	3.0
		NB Approach		***-***	***B***	***19.2***	***-***	***C***	***30.1***	***-***	***C***	***33.1***	***3.0***
	NYS Route 9D	SB	L	0.79	C	27.5	0.83	C	34.2	0.84	D	35.7	1.5
			T	0.51	A	6.6	0.59	A	7.6	0.59	A	7.6	0.0
		SB Approach		***-***	***B***	***12.4***	***-***	***B***	***14.3***	***-***	***B***	***14.5***	***0.2***
		Overall		**-**	**B**	**17.0**	**-**	**C**	**22.9**	**-**	**C**	**24.6**	**1.7**
2	**NYS Route 9D & Tompkins Avenue/ Ralph Street**	**Unsignalized**											
	Tompkins Avenue	EB	LTR	0.20	D	27.6	0.623	F	67.6	0.75	F	90.5	22.9
	Ralph Street	WB	LTR	0.09	D	31.5	0.166	E	46.0	0.18	E	49.0	3.0
	NYS Route 9D	NB	LTR	0.02	A	9.0	0.04	A	9.6	0.04	A	9.7	0.1
	NYS Route 9D	SB	LTR	0.01	A	9.0	0.01	A	9.3	0.008	A	9.4	0.1
	<u>With Signalization</u>												
	Tompkins Avenue	EB	LTR	-	-	-	0.42	D	40.5	0.45	D	40.2	-0.3
		EB Approach		***-***	***-***	***-***	***-***	***D***	***40.5***	***-***	***D***	***40.2***	***-0.3***
	Ralph Street	WB	LTR	-	-	-	0.08	D	38.4	0.08	D	37.9	-0.5
		WB Approach		***-***	***-***	***-***	***-***	***D***	***38.4***	***-***	***D***	***37.9***	***-0.5***
	NYS Route 9D	NB	L	-	-	-	0.06	A	4.0	0.06	A	4.5	0.5
			TR	-	-	-	0.53	A	1.3	0.55	A	6.5	5.2
		NB Approach		***-***	***-***	***-***	***-***	***A***	***1.4***	***-***	***A***	***6.4***	***5.0***
	NYS Route 9D	SB	L	-	-	-	0.01	A	3	0.01	A	4.5	1.5
			TR	-	-	-	0.52	A	6.4	0.54	A	6.9	0.5
		SB Approach		***-***	***-***	***-***	***-***	***A***	***6.3***	***-***	***A***	***6.9***	***0.6***
		Overall		**-**	**-**	**-**	**-**	**A**	**6.0**	**-**	**A**	**8.8**	**2.8**

Table No. 2
Level of Service Summary Table
Weekday Peak PM Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
3	**NYS Route 9D &**	**Signalized**											
	Beekman Street/W. Church Street												
	Beekman Street	EB	LT	1.75	F	394.9	18.2	F	424.3	1.92	F	468.3	44.0
			R	0.04	B	17.1	0.06	B	17.2	0.11	B	17.6	0.4
		EB Approach		***-***	***F***	***365.9***	***-***	***F***	***382.4***	***-***	***F***	***395.7***	***13.3***
	W. Church Street	WB	LTR	0.03	B	18.1	0.06	B	18.5	0.06	B	18.5	0.0
		WB Approach		***-***	***B***	***18.1***	***-***	***B***	***18.5***	***-***	***B***	***18.5***	***0.0***
	NYS Route 9D	NB	L	0.09	C	31.3	0.13	C	31.3	0.20	C	31.3	0.0
			TR	0.73	D	36.9	0.83	D	42.4	0.83	D	42.2	-0.2
		NB Approach		***-***	***D***	***36.5***	***-***	***D***	***41.3***	***-***	***D***	***40.6***	***-0.7***
	NYS Route 9D	SB	L	0.01	C	24.7	0.01	C	27.1	0.01	C	27.1	0.0
			TR	1.36	F	207.9	1.53	F	283.4	1.55	F	289.8	6.4
		SB Approach		***-***	***F***	***206.7***	***-***	***F***	***281.7***	***-***	***F***	***288.1***	***6.4***
		Overall		**-**	**F**	**188.4**	**-**	**F**	**222.9**	**-**	**F**	**230.1**	**7.2**
	<u>With Signal Timing & Phasing Modifications</u>												
	Beekman Street	EB	LT	-	-	-	-	-	-	0.90	D	51.8	-372.5
			R	-	-	-	-	-	-	0.17	C	26.0	8.8
		EB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***D***	***47.7***	***-334.7***
	W. Church Street	WB	LTR	-	-	-	-	-	-	0.51	D	45.8	27.3
		WB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***D***	***45.8***	***27.3***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.34	B	18.0	-13.3
			TR	-	-	-	-	-	-	0.44	B	14.3	-28.1
		NB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***B***	***14.8***	***-26.5***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.01	B	12.0	-15.1
			TR	-	-	-	-	-	-	0.87	C	29.9	-253.5
		SB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***C***	***29.8***	***-251.9***
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**C**	**29.5**	**-193.4**

Table No. 2
Level of Service Summary Table
Weekday Peak PM Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
4	**NYS Route 9D &**	**Signalized**											
	Main Street/City Hall												
	City Hall	EB	LTR	0.05	C	33	0.06	C	32.4	0.06	C	32.1	-0.3
		EB Approach		***-***	***C***	***33.0***	***-***	***C***	***32.4***	***-***	***C***	***32.1***	***-0.3***
	Main Street	WB	LT	0.12	C	33.4	0.17	C	33.1	0.17	C	32.8	-0.3
			R	0.43	C	30.6	0.45	C	29.6	0.46	C	29.2	-0.4
		WB Approach		***-***	***C***	***31.1***	***-***	***C***	***30.4***	***-***	***C***	***30.0***	***-0.4***
	NYS Route 9D	NB	L	0.00	A	6.7	0.00	A	7.3	0.00	A	7.6	0.3
			TR	0.36	A	9.4	0.44	B	11.3	0.46	B	11.9	0.6
		NB Approach		***-***	***A***	***9.4***	***-***	***B***	***11.2***	***-***	***B***	***11.9***	***0.7***
	NYS Route 9D	SB	L	0.36	A	5.6	0.46	A	6.8	0.49	A	7.3	0.5
			TR	0.25	A	5.7	0.31	A	6.4	0.32	A	6.6	0.2
		SB Approach		***-***	***A***	***5.7***	***-***	***A***	***6.6***	***-***	***A***	***6.9***	***0.3***
		Overall		**-**	**B**	**11.7**	**-**	**B**	**12.7**	**-**	**B**	**13.0**	**0.3**
	<u>With Signal Timing & Cooridnation Modifications</u>												
	City Hall	EB	LTR	-	-	-	-	-	-	0.06	C	32.1	-0.3
		EB Approach		-	-	-	-	-	-	***-***	***C***	***32.1***	***-0.3***
	Main Street	WB	LT	-	-	-	-	-	-	0.17	C	32.8	-0.3
			R	-	-	-	-	-	-	0.46	C	29.2	-0.4
		WB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***C***	***30.0***	***-0.4***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.00	A	7.6	0.3
			TR	-	-	-	-	-	-	0.46	B	11.8	0.5
		NB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***B***	***11.8***	***0.6***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.49	A	7.3	0.5
			TR	-	-	-	-	-	-	0.32	A	6.6	0.2
		SB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***A***	***6.9***	***0.3***
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**B**	**13.0**	**0.3**
5	**Beekman Street &**	**Unsignalized**											
	High Street	EB	LT	0.00	A	0.0	0.00	A	0.0	0.00	A	0.0	0.0
		SB	LR	0.02	A	9.9	0.02	B	10.3	0.021	B	10.4	0.1
6	**Beekman Street &**	**Unsignalized**											
	Site Access	EB	LT	-	-	-	-	-	-	0.01	A	7.9	-
		SB	LR	-	-	-	-	-	-	0.19	C	16.6	-
7	**Tompkins Avenue &**	**Unsignalized**											
	Site Access	WB	LT	-	-	-	-	-	-	0.02	A	7.5	-
		NB	LR	-	-	-	-	-	-	0.02	A	8.9	-

<u>NOTES:</u>

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C"

Table No. 2
Level of Service Summary Table
Saturday Peak Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
1	**NYS Route 9D & Verplanck Avenue**	**Signalized**											
	Verplanck Avenue	WB	L	0.17	B	18.0	0.19	C	21.8	0.22	C	22.9	1.1
			R	0.81	C	20.2	0.86	C	24.1	0.86	C	25.1	1.0
		WB Approach		***-***	***B***	***19.9***	***-***	***C***	***23.8***	***-***	***C***	***24.8***	***1.0***
	NYS Route 9D	NB	TR	0.85	B	16.0	0.89	B	19.9	0.90	C	21.4	1.5
		NB Approach		***-***	***B***	***16.0***	***-***	***B***	***19.9***	***-***	***C***	***21.4***	***1.5***
	NYS Route 9D	SB	L	0.75	C	23.4	0.79	C	27.9	0.80	C	28.9	1.0
			T	0.58	A	6.8	0.65	A	7.7	0.66	A	7.7	0.0
		SB Approach		***-***	***B***	***11.0***	***-***	***B***	***12.3***	***-***	***B***	***12.5***	***0.2***
		Overall		**-**	**B**	**14.3**	**-**	**B**	**16.9**	**-**	**B**	**17.7**	**0.8**
2	**NYS Route 9D & Tompkins Avenue/ Ralph Street**	**Unsignalized**											
	Tompkins Avenue	EB	LTR	0.21	D	27.5	0.60	F	61.7	0.70	F	78.1	16.4
	Ralph Street	WB	LTR	0.08	C	21.4	0.13	D	29.5	0.139	D	30.9	1.4
	NYS Route 9D	NB	LTR	0.01	A	9.0	0.03	A	9.6	0.03	A	9.7	0.1
	NYS Route 9D	SB	LTR	0.01	A	8.7	0.01	A	8.9	0.01	A	8.9	0.0
	<u>With Signalization</u>												
	Tompkins Avenue	EB	LTR	-	-	-	0.41	D	40	0.43	D	39.8	-0.2
		EB Approach		***-***	***-***	***-***	***-***	***D***	***40.0***	***-***	***D***	***39.8***	***-0.2***
	Ralph Street	WB	LTR	-	-	-	0.11	D	38.2	0.11	D	37.7	-0.5
		WB Approach		***-***	***-***	***-***	***-***	***D***	***38.2***	***-***	***D***	***37.7***	***-0.5***
	NYS Route 9D	NB	L	-	-	-	0.05	A	4.3	0.06	A	4.6	0.3
			TR	-	-	-	0.45	A	5.5	0.47	A	1.0	-4.5
		NB Approach		***-***	***-***	***-***	***-***	***A***	***5.4***	***-***	***A***	***1.1***	***-4.3***
	NYS Route 9D	SB	L	-	-	-	0.01	A	3.8	0.01	A	3.2	-0.6
			TR	-	-	-	0.53	A	6.6	0.55	A	7.1	0.5
		SB Approach		***-***	***-***	***-***	***-***	***A***	***6.6***	***-***	***A***	***7.0***	***0.4***
		Overall		**-**	**-**	**-**	**-**	**A**	**8.3**	**-**	**A**	**6.9**	**-1.4**

Table No. 2
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Saturday Peak Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
3	**NYS Route 9D &**	**Signalized**											
	Beekman Street/W. Church Street												
	Beekman Street	EB	LT	0.51	C	28.6	0.56	C	26.8	0.56	C	27.7	0.9
			R	0.12	C	24.3	0.12	C	20.6	0.21	C	22.8	2.2
		EB Approach		***-***	***C***	***27.9***	***-***	***C***	***25.4***	***-***	***C***	***26.3***	***0.9***
	W. Church Street	WB	LTR	0.09	C	24.5	0.14	C	21.5	0.11	C	22.9	1.4
		WB Approach		***-***	***C***	***24.5***	***-***	***C***	***21.5***	***-***	***C***	***22.9***	***1.4***
	NYS Route 9D	NB	L	0.11	C	20.6	0.18	C	24.4	0.21	C	22.6	-1.8
			TR	0.66	C	25.9	0.76	C	28.9	0.76	C	28.9	0.0
		NB Approach		***-***	***C***	***25.2***	***-***	***C***	***28.3***	***-***	***C***	***27.7***	***-0.6***
	NYS Route 9D	SB	L	0.01	B	13.4	0.02	B	18.5	0.02	B	16.9	-1.6
			TR	1.22	F	140.8	1.37	F	204.0	1.39	F	209.1	5.1
		SB Approach		***-***	***F***	***139.4***	***-***	***F***	***201.9***	***-***	***F***	***207.0***	***5.1***
		Overall		**-**	**F**	**81.0**	**-**	**F**	**110.5**	**-**	**F**	**110.2**	**-0.3**
	<u>With Signal Timing & Phasing Modifications</u>												
	Beekman Street	EB	LT	-	-	-	-	-	-	0.74	D	38.3	11.5
			R	-	-	-	-	-	-	0.27	C	31.3	10.7
		EB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***D***	***36.3***	***10.9***
	W. Church Street	WB	LTR	-	-	-	-	-	-	0.48	D	46.0	24.5
		WB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***D***	***46.0***	***24.5***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.37	B	15.1	-9.3
			TR	-	-	-	-	-	-	0.42	B	10.6	-18.3
		NB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***B***	***11.4***	***-16.9***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.02	A	8.8	-9.7
			TR	-	-	-	-	-	-	0.82	C	22.2	-181.8
		SB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***C***	***22.1***	***-179.8***
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**C**	**20.6**	**-89.9**

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Saturday Peak Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
4	**NYS Route 9D &**	**Signalized**											
	Main Street/City Hall												
	City Hall	EB	LTR	0.01	C	26.3	0.03	C	25.8	0.03	C	25.5	-0.3
		EB Approach		***-***	***C***	***26.3***	***-***	***C***	***25.8***	***-***	***C***	***25.5***	***-0.3***
	Main Street	WB	LT	0.07	C	26.7	0.11	C	26.3	0.11	C	26.1	-0.2
			R	0.46	C	24.3	0.47	C	23.3	0.48	C	22.9	-0.4
		WB Approach		***-***	***C***	***24.5***	***-***	***C***	***23.7***	***-***	***C***	***23.4***	***-0.3***
	NYS Route 9D	NB	L	0.00	A	7.5	0.00	A	8.2	0.00	A	8.5	0.3
			TR	0.34	B	10.1	0.44	B	12.1	0.46	B	12.8	0.7
		NB Approach		***-***	***B***	***10.1***	***-***	***B***	***12.1***	***-***	***B***	***12.7***	***0.6***
	NYS Route 9D	SB	L	0.37	A	5.9	0.47	A	7.1	0.49	A	7.5	0.4
			TR	0.24	A	6.2	0.29	A	6.8	0.31	A	7.0	0.2
		SB Approach		***-***	***A***	***6.0***	***-***	***A***	***6.9***	***-***	***A***	***7.2***	***0.3***
		Overall		**-**	**B**	**11.2**	**-**	**B**	**12.2**	**-**	**B**	**12.5**	**0.3**
	<u>With Signal Timing & Cooridnation Modifications</u>												
	City Hall	EB	LTR	-	-	-	-	-	-	0.03	C	31.2	5.4
		EB Approach		-	-	-	-	-	-	***-***	***C***	***31.2***	***5.4***
	Main Street	WB	LT	-	-	-	-	-	-	0.12	C	31.9	5.6
			R	-	-	-	-	-	-	0.52	C	29.0	5.7
		WB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***C***	***29.4***	***5.7***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.00	A	8.0	-0.2
			TR	-	-	-	-	-	-	0.42	B	11.8	-0.3
		NB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***B***	***11.8***	***-0.3***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.47	A	7.1	0.0
			TR	-	-	-	-	-	-	0.29	A	6.7	-0.1
		SB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***A***	***6.9***	***0.0***
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**B**	**13.3**	**1.1**
5	**Beekman Street &**	**Unsignalized**											
	High Street	EB	LT	0.00	A	0.0	0.00	A	0.0	0.00	A	0.0	0.0
		SB	LR	0.00	B	10.0	0.01	B	10.2	0.007	B	10.3	0.1
6	**Beekman Street &**	**Unsignalized**											
	Site Access	EB	LT	-	-	-	-	-	-	0.01	A	8.0	-
		SB	LR	-	-	-	-	-	-	0.11	B	12.9	-
7	**Tompkins Avenue &**	**Unsignalized**											
	Site Access	WB	LT	-	-	-	-	-	-	0.01	A	7.4	-
		NB	LR	-	-	-	-	-	-	0.01	A	8.8	-

<u>NOTES:</u>

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C"

TABLE TSW-1

SIGNAL WARRANTS ANALYSIS
WOLCOTT AVENUE (NYS ROUTE 9D) AT TOMPKINS AVENUE/RALPH STREET
WARRANT ANALYSIS SUMMARY

INTERSECTION DATA			
Major Street:	Wolcott Avenue (NYS Route 9D)	**Number of Lanes For Moving Traffic By Approach**	
Minor Street:	Tompkins Avenue/Ralph Street	Major Street (Excluding Auxiliary Lanes) =	1
		Minor Street (Including Auxiliary Lanes) =	1
Location:	City of Beacon, Dutchess County, New York		
		Major Street Speed	
Date:	10/12/2023	85TH Percentile Speed >= 40 mph (Y or N):	30
Volume Basis:	2026 No-Build Traffic Volumes	**Community Population**	
		Community < 10,000 (Y or N):	N
Condition:	Typical Weekday		

WARRANT ANALYSIS SUMMARY		
Warrant 1 - Eight-Hour Vehicular Volume		
Condition A - Minimum Vehicular Volume		Not Satisfied -- No Signal
Condition B - Minimum Vehicular Interruption of Continous Traffic		Not Satisfied -- No Signal
Condition A & B Combined Condition		Not Applicable
	Warrant 1 Satisfied:	**NO**
Warrant 2 - Four-Hour Vehicular Volume		
Four-Hour Vehicular Volume		Satisfied -- Criteria Met for Signalization
	Warrant 2 Satisfied:	**YES**
Warrant 3 - Peak Hour		
Peak Hour Volume		Not Satisfied -- No Signal
	Warrant 3 Satisfied:	**NO**
Warrant 4 - Pedestrian Volume Warrant		
Condition A - Pedestrian Four-Hour Volume		Not Applicable
Condition B - Pedestrian Peak Hour Volume		Not Applicable
	Warrant 4 Satisfied:	**Not Applicable**
Warrant 5 - School Crossing		
	Warrant 5 Satisfied:	**Not Applicable**
Warrant 6 - Coordinated Signal System		
	Warrant 6 Satisfied:	**Not Analyzed**
Warrant 7 - Crash Experience		
	Warrant 7 Satisfied:	**Not Analyzed**
Warrant 8 - Roadway Network		
	Warrant 7 Satisfied:	**Not Analyzed**
Warrant 9 - Intersection Near a Grade Crossing		
Condition A - Distance to Rail		Not Applicable
Condition B - Traffic Volume Warrant		Not Applicable
	Warrant 9 Satisfied:	**Not Applicable**

Colliers Engineering & Design

TABLE TSW-1

SIGNAL WARRANTS ANALYSIS
WOLCOTT AVENUE (NYS ROUTE 9D) AT TOMPKINS AVENUE/RALPH STREET
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

INTERSECTION DATA

Major Street: Wolcott Avenue (NYS Route 9D)
Minor Street: Tompkins Avenue/Ralph Street
Location: City of Beacon, Dutchess County, New York
Date: 10/12/2023
Volume Basis: 2026 No-Build Traffic Volumes
Condition: Typical Weekday

Number of Lanes For Moving Traffic By Approach
Major Street (Excluding Auxiliary Lanes) = 1
Minor Street (Including Auxiliary Lanes) = 1

Major Street Speed
85TH Percentile Speed >= 40 mph (Y or N): N

Community Population
Community < 10,000 (Y or N): N

WARRANT ANALYSIS

Time of Day	Volumes		Warrant 1 Condition A		Warrant 1 Condition B		Warrant 1 Condition A & B				Warrant Met?			
							Condition A		Condition B				Combined	
	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Warrant 1A	Warrant 1B	1A	1B
12:00 AM	153	9	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
1:00 AM	76	5	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
2:00 AM	55	5	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
3:00 AM	57	5	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
4:00 AM	286	22	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
5:00 AM	542	40	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
6:00 AM	1,107	95	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
7:00 AM	1,184	134	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
8:00 AM	1,347	116	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
9:00 AM	1,013	75	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
10:00 AM	800	67	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
11:00 AM	831	53	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
12:00 PM	955	53	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
1:00 PM	994	56	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
2:00 PM	1,110	62	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
3:00 PM	1,293	70	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
4:00 PM	1,475	76	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
5:00 PM	1,051	93	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
6:00 PM	1,415	81	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
7:00 PM	1,065	59	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
8:00 PM	842	49	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
9:00 PM	614	34	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
10:00 PM	444	27	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
11:00 PM	265	16	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
Total Hours Meeting Warrants											**0**	**7**	**0**	**0**
Total Hours Needed to Satisfy											**8**	**8**	**8***	**8***

WARRANT 1 SUMMARY

Warrant 1 Condition A - Minimum Vehicular Volume	**Not Satisfied -- No Signal**
Warrant 1 Condition B - Interruption of Continuous Traffic	**Not Satisfied -- No Signal**
Warrant 1A & 1B Combined Condition	**Not Applicable**

*Note: For Combined Warrant Both Conditions 1A & 1B Must Be Satisfied for a Minimum of 8 Hours.

TABLE TSW-1

SIGNAL WARRANTS ANALYSIS
WOLCOTT AVENUE (NYS ROUTE 9D) AT TOMPKINS AVENUE/RALPH STREET
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME & WARRANT 3 - PEAK HOUR

INTERSECTION DATA

Major Street:	Wolcott Avenue (NYS Route 9D)	**Number of Lanes For Moving Traffic By Approach**	
Minor Street:	Tompkins Avenue/Ralph Street	Major Street (Excluding Auxiliary Lanes) =	1
		Minor Street (Including Auxiliary Lanes) =	1
Location:	City of Beacon, Dutchess County, New York		
		Major Street Speed	
Date:	10/12/2023	85TH Percentile Speed >= 40 mph (Y or N):	N
Volume Basis:	2026 No-Build Traffic Volumes	**Community Population**	
		Community < 10,000 (Y or N):	N
Condition:	Typical Weekday		

WARRANT ANALYSIS

Time of Day	Volumes		Warrant 2[1]		Warrant 3[1]		Warrant Met?	
	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Warrant 2	Warrant 3
12:00 AM	153	9					NO	NO
1:00 AM	76	5					NO	NO
2:00 AM	55	5					NO	NO
3:00 AM	57	5					NO	NO
4:00 AM	286	22					NO	NO
5:00 AM	542	40					NO	NO
6:00 AM	1,107	95					YES	NO
7:00 AM	1,184	134					YES	NO
8:00 AM	1,347	116					YES	NO
9:00 AM	1,013	75					NO	NO
10:00 AM	800	67					NO	NO
11:00 AM	831	53					NO	NO
12:00 PM	955	53					NO	NO
1:00 PM	994	56					NO	NO
2:00 PM	1,110	62					NO	NO
3:00 PM	1,293	70					NO	NO
4:00 PM	1,475	76					NO	NO
5:00 PM	1,051	93					YES	NO
6:00 PM	1,415	81					YES	NO
7:00 PM	1,065	59					NO	NO
8:00 PM	842	49					NO	NO
9:00 PM	614	34					NO	NO
10:00 PM	444	27					NO	NO
11:00 PM	265	16					NO	NO
			See Figure 4C-1		**See Figure 4C-3**			
						Total Hours Meeting Warrants	5	0
						Total Hours Needed to Satisfy	4	1

WARRANTS 2 & 3 SUMMARY

Warrant 2 - Four Hour Vehicular Volume	**Satisfied -- Criteria Met for Signalization**
Warrant 3 - Peak Hour Volume	**Not Satisfied -- No Signal**

Notes:

1) Volumes for Warrants 2 & 3 are compared to attached MUTCD Figures 4C-1 and 4C-3, respectively.

Table TSW-1

Figure 4C-1

Wolcott Avenue (NYS Route 9D) at Tompkins Avenue/Ralph Street

Warrant 2 - Four Hour Vehicular Warrant

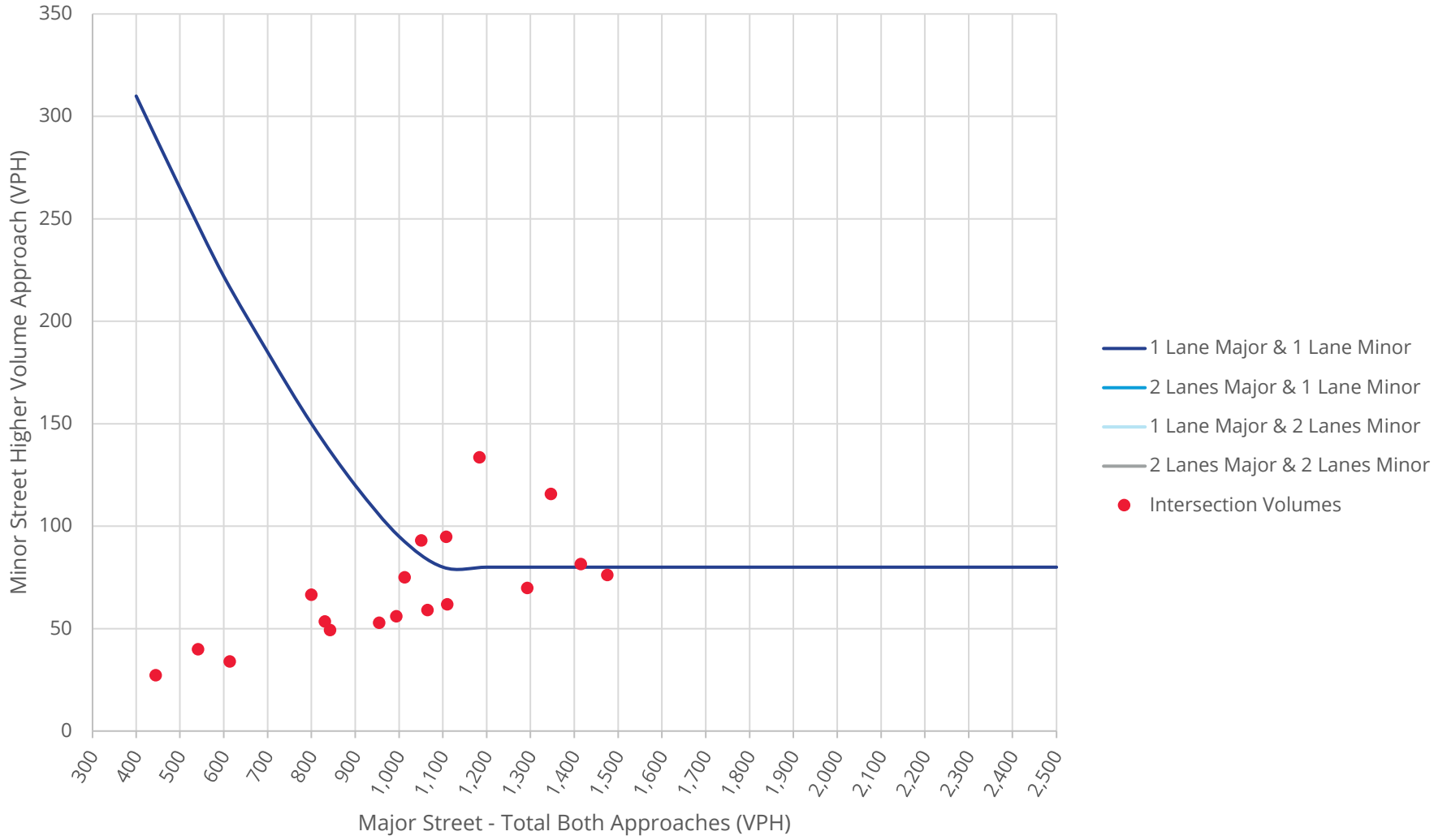


Table TSW-1

Figure 4C-3

Wolcott Avenue (NYS Route 9D) at Tompkins Avenue/Ralph Street

Warrant 3 - Peak Hour Warrant

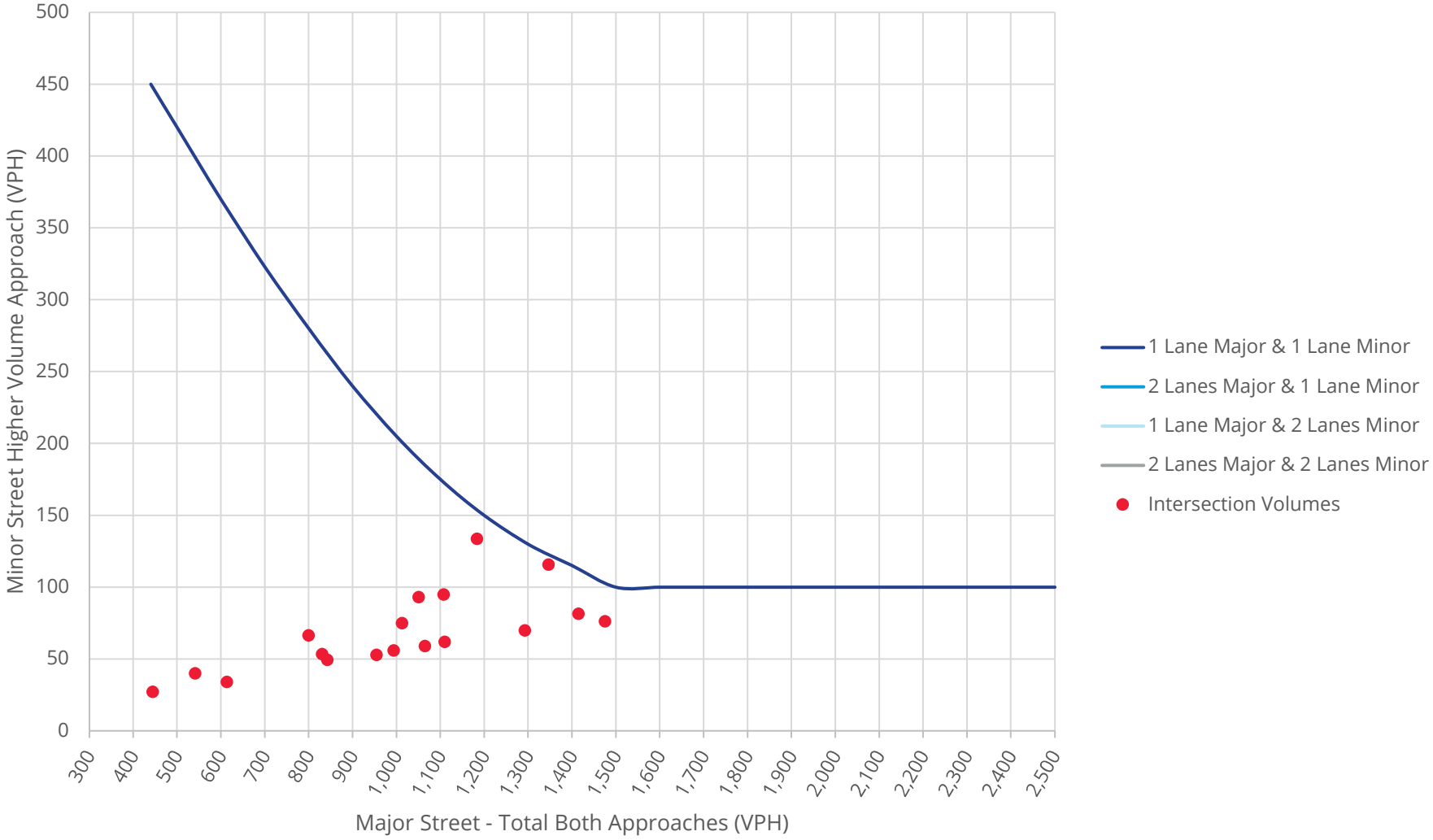


TABLE TSW-2

SIGNAL WARRANTS ANALYSIS
WOLCOTT AVENUE (NYS ROUTE 9D) AT TOMPKINS AVENUE/RALPH STREET
WARRANT ANALYSIS SUMMARY

INTERSECTION DATA			
Major Street:	Wolcott Avenue (NYS Route 9D)	**Number of Lanes For Moving Traffic By Approach**	
Minor Street:	Tompkins Avenue/Ralph Street	Major Street (Excluding Auxiliary Lanes) =	1
		Minor Street (Including Auxiliary Lanes) =	1
Location:	City of Beacon, Dutchess County, New York		
		Major Street Speed	
Date:	10/12/2023	85TH Percentile Speed >= 40 mph (Y or N):	30
Volume Basis:	2026 Build Traffic Volumes	**Community Population**	
		Community < 10,000 (Y or N):	N
Condition:	Typical Weekday		

WARRANT ANALYSIS SUMMARY		
Warrant 1 - Eight-Hour Vehicular Volume		
Condition A - Minimum Vehicular Volume		Not Satisfied -- No Signal
Condition B - Minimum Vehicular Interruption of Continous Traffic		Satisfied -- Criteria Met for Signalization
Condition A & B Combined Condition		Not Applicable
	Warrant 1 Satisfied:	**YES**
Warrant 2 - Four-Hour Vehicular Volume		
Four-Hour Vehicular Volume		Satisfied -- Criteria Met for Signalization
	Warrant 2 Satisfied:	**YES**
Warrant 3 - Peak Hour		
Peak Hour Volume		Satisfied -- Criteria Met for Signalization
	Warrant 3 Satisfied:	**YES**
Warrant 4 - Pedestrian Volume Warrant		
Condition A - Pedestrian Four-Hour Volume		Not Applicable
Condition B - Pedestrian Peak Hour Volume		Not Applicable
	Warrant 4 Satisfied:	**Not Applicable**
Warrant 5 - School Crossing		
	Warrant 5 Satisfied:	**Not Applicable**
Warrant 6 - Coordinated Signal System		
	Warrant 6 Satisfied:	**Not Analyzed**
Warrant 7 - Crash Experience		
	Warrant 7 Satisfied:	**Not Analyzed**
Warrant 8 - Roadway Network		
	Warrant 7 Satisfied:	**Not Analyzed**
Warrant 9 - Intersection Near a Grade Crossing		
Condition A - Distance to Rail		Not Applicable
Condition B - Traffic Volume Warrant		Not Applicable
	Warrant 9 Satisfied:	**Not Applicable**

TABLE TSW-2

SIGNAL WARRANTS ANALYSIS
WOLCOTT AVENUE (NYS ROUTE 9D) AT TOMPKINS AVENUE/RALPH STREET
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

INTERSECTION DATA

Major Street: Wolcott Avenue (NYS Route 9D)
Minor Street: Tompkins Avenue/Ralph Street
Location: City of Beacon, Dutchess County, New York
Date: 10/12/2023
Volume Basis: 2026 Build Traffic Volumes
Condition: Typical Weekday

Number of Lanes For Moving Traffic By Approach
Major Street (Excluding Auxiliary Lanes) = 1
Minor Street (Including Auxiliary Lanes) = 1

Major Street Speed
85TH Percentile Speed >= 40 mph (Y or N): N

Community Population
Community < 10,000 (Y or N): N

WARRANT ANALYSIS

Time of Day	Volumes		Warrant 1 Condition A		Warrant 1 Condition B		Warrant 1 Condition A & B				Warrant Met?			
							Condition A		Condition B				Combined	
	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Warrant 1A	Warrant 1B	1A	1B
12:00 AM	155	9	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
1:00 AM	78	6	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
2:00 AM	56	5	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
3:00 AM	58	5	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
4:00 AM	288	23	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
5:00 AM	548	43	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
6:00 AM	1,121	101	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
7:00 AM	1,208	143	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
8:00 AM	1,374	124	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
9:00 AM	1,044	82	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
10:00 AM	840	76	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
11:00 AM	881	65	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
12:00 PM	997	62	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
1:00 PM	1,034	66	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
2:00 PM	1,151	72	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
3:00 PM	1,336	80	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
4:00 PM	1,516	87	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
5:00 PM	1,105	105	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
6:00 PM	1,462	92	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
7:00 PM	1,104	67	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
8:00 PM	875	57	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
9:00 PM	635	39	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
10:00 PM	466	32	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
11:00 PM	276	19	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
Total Hours Meeting Warrants											**0**	**9**	**0**	**0**
Total Hours Needed to Satisfy											**8**	**8**	**8***	**8***

WARRANT 1 SUMMARY

Warrant 1 Condition A - Minimum Vehicular Volume	**Not Satisfied -- No Signal**
Warrant 1 Condition B - Interruption of Continuous Traffic	**Satisfied -- Criteria Met for Signalization**
Warrant 1A & 1B Combined Condition	**Not Applicable**

*Note: For Combined Warrant Both Conditions 1A & 1B Must Be Satisfied for a Minimum of 8 Hours.

TABLE TSW-2

SIGNAL WARRANTS ANALYSIS
WOLCOTT AVENUE (NYS ROUTE 9D) AT TOMPKINS AVENUE/RALPH STREET
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME & WARRANT 3 - PEAK HOUR

INTERSECTION DATA

Major Street:	Wolcott Avenue (NYS Route 9D)	**Number of Lanes For Moving Traffic By Approach**	
Minor Street:	Tompkins Avenue/Ralph Street	Major Street (Excluding Auxiliary Lanes) =	1
		Minor Street (Including Auxiliary Lanes) =	1
Location:	City of Beacon, Dutchess County, New York		
		Major Street Speed	
Date:	10/12/2023	85TH Percentile Speed >= 40 mph (Y or N):	N
Volume Basis:	2026 Build Traffic Volumes	**Community Population**	
		Community < 10,000 (Y or N):	N
Condition:	Typical Weekday		

WARRANT ANALYSIS

Time of Day	Volumes Major Street	Volumes Minor Street	Warrant 2[1] Major Street	Warrant 2[1] Minor Street	Warrant 3[1] Major Street	Warrant 3[1] Minor Street	Warrant Met? Warrant 2	Warrant Met? Warrant 3
12:00 AM	155	9					NO	NO
1:00 AM	78	6					NO	NO
2:00 AM	56	5					NO	NO
3:00 AM	58	5					NO	NO
4:00 AM	288	23					NO	NO
5:00 AM	548	43					NO	NO
6:00 AM	1,121	101					YES	NO
7:00 AM	1,208	143					YES	NO
8:00 AM	1,374	124					YES	YES
9:00 AM	1,044	82					NO	NO
10:00 AM	840	76					NO	NO
11:00 AM	881	65					NO	NO
12:00 PM	997	62					NO	NO
1:00 PM	1,034	66					NO	NO
2:00 PM	1,151	72					NO	NO
3:00 PM	1,336	80					YES	NO
4:00 PM	1,516	87					YES	NO
5:00 PM	1,105	105					YES	NO
6:00 PM	1,462	92					YES	NO
7:00 PM	1,104	67					NO	NO
8:00 PM	875	57					NO	NO
9:00 PM	635	39					NO	NO
10:00 PM	466	32					NO	NO
11:00 PM	276	19					NO	NO
			See Figure 4C-1		**See Figure 4C-3**			
						Total Hours Meeting Warrants	7	1
						Total Hours Needed to Satisfy	4	1

WARRANTS 2 & 3 SUMMARY

Warrant 2 - Four Hour Vehicular Volume	**Satisfied -- Criteria Met for Signalization**
Warrant 3 - Peak Hour Volume	**Satisfied -- Criteria Met for Signalization**

Notes:

1) Volumes for Warrants 2 & 3 are compared to attached MUTCD Figures 4C-1 and 4C-3, respectively.

Table TSW-2

Figure 4C-1

Wolcott Avenue (NYS Route 9D) at Tompkins Avenue/Ralph Street

Warrant 2 - Four Hour Vehicular Warrant

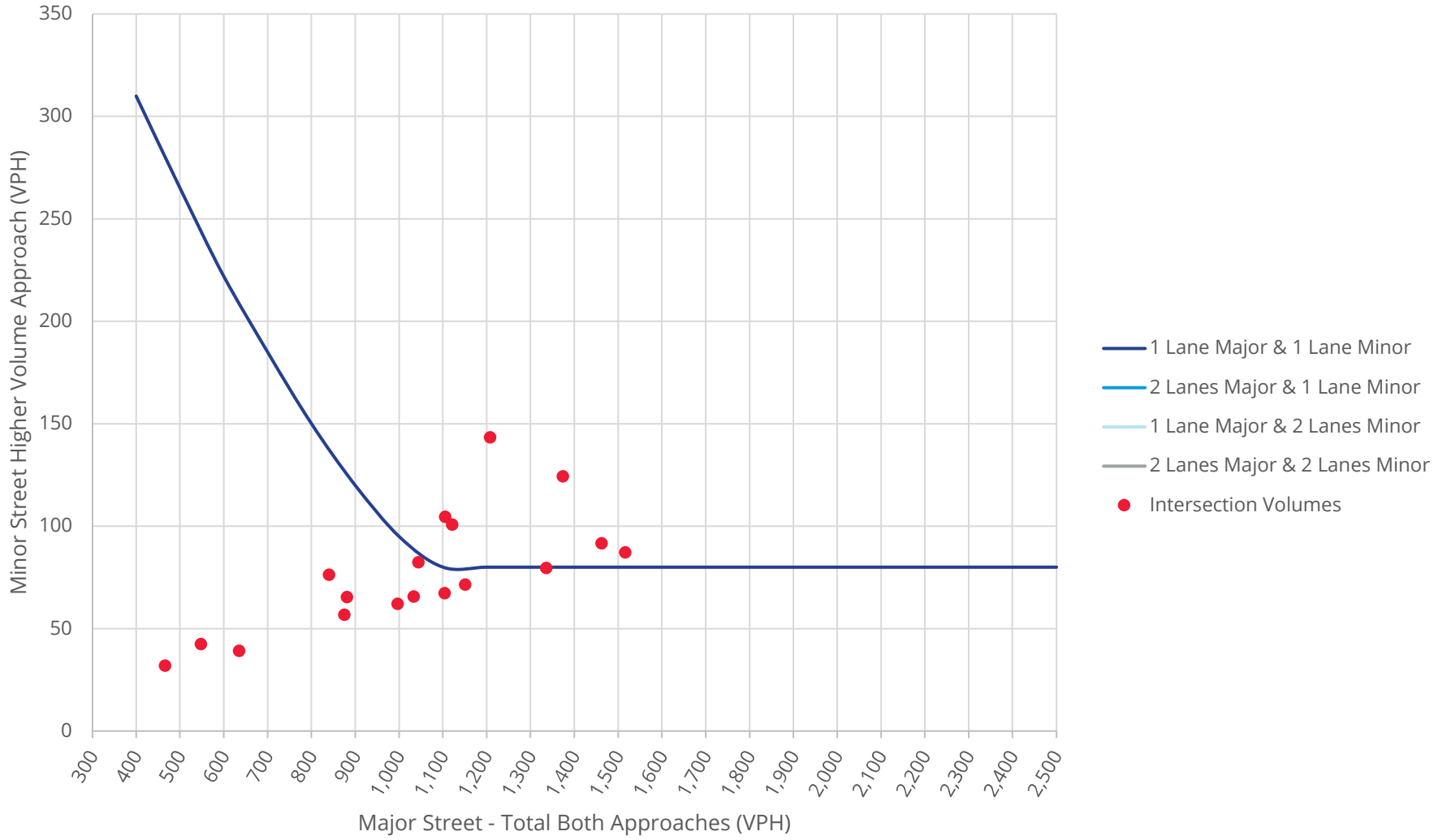


Table TSW-2

Figure 4C-3

Wolcott Avenue (NYS Route 9D) at Tompkins Avenue/Ralph Street

Warrant 3 - Peak Hour Warrant

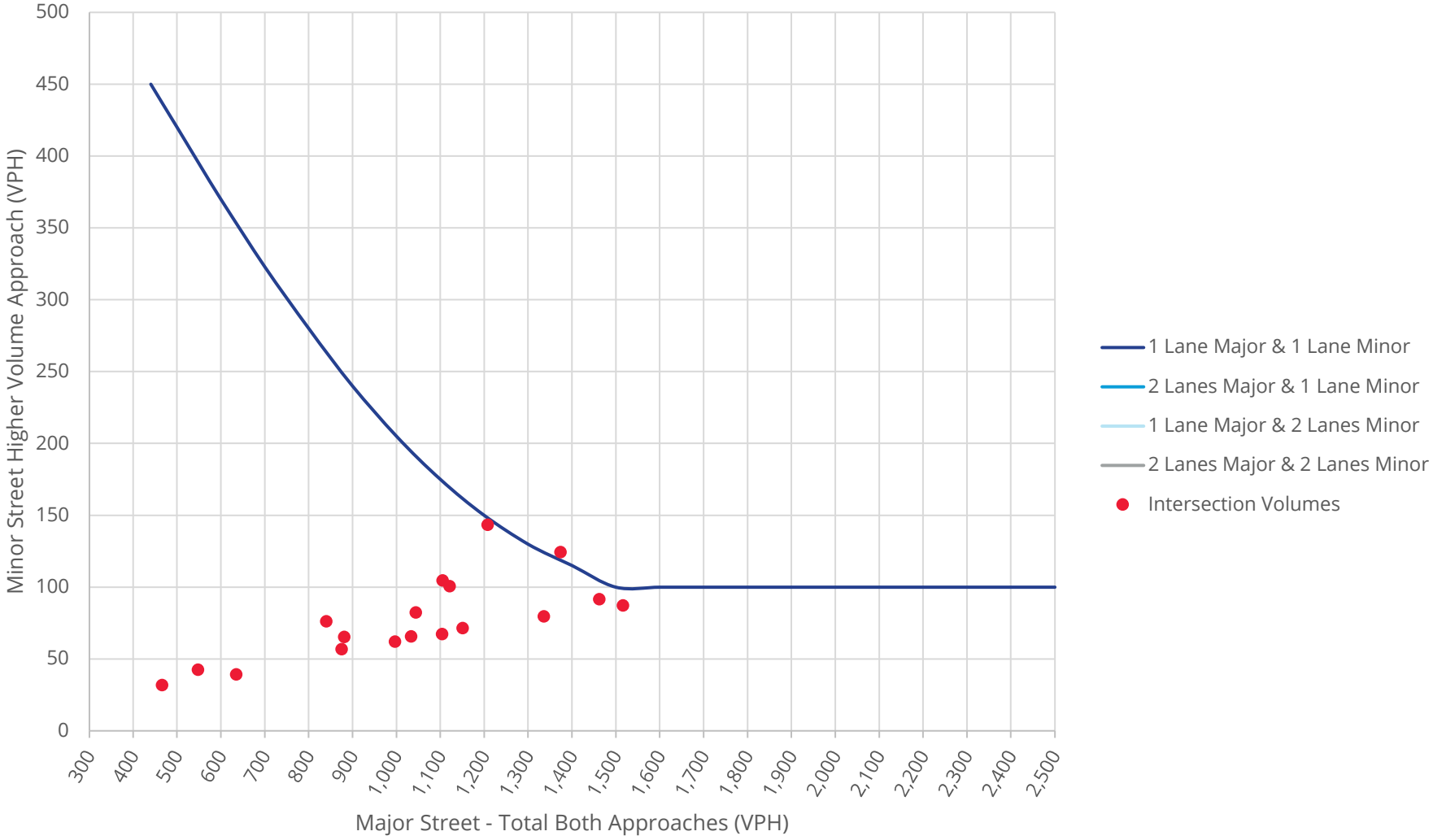


TABLE NO. P-1
SHARED PARKING ANALYSIS
WEEKDAY

		45 Beekman Street				High Street				
Use		**Residential**		**Retail**		**Residential**		**Retail**		
Size		36 Units		8,670 Sq. Ft.		28 Units		5,418 Sq. Ft.		**Total Peak**
Demand Factor		1 /Unit		3.0 /1,000 Sq. Ft.		1 /Unit		3.0 /1,000 Sq. Ft.		**Parking**
Peak Hour Demand		36 Spaces		27 Spaces		28 Spaces		17 Spaces		**Demand**
Time of Day		**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**Parking**
Start	**End**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Spaces**
12:00 AM	1:00 AM	97%	35	0%	-	97%	28	0%	-	63
1:00 AM	2:00 AM	97%	35	0%	-	97%	28	0%	-	63
2:00 AM	3:00 AM	97%	35	0%	-	97%	28	0%	-	63
3:00 AM	4:00 AM	97%	35	0%	-	97%	28	0%	-	63
4:00 AM	5:00 AM	97%	35	0%	-	97%	28	0%	-	63
5:00 AM	6:00 AM	100%	36	0%	-	100%	28	0%	-	64
6:00 AM	7:00 AM	96%	35	0%	-	96%	27	0%	-	62
7:00 AM	8:00 AM	85%	31	0%	-	85%	24	0%	-	55
8:00 AM	9:00 AM	67%	25	19%	6	67%	19	19%	4	54
9:00 AM	10:00 AM	54%	20	33%	9	54%	16	33%	6	51
10:00 AM	11:00 AM	48%	18	47%	13	48%	14	47%	8	53
11:00 AM	12:00 PM	45%	17	55%	15	45%	13	55%	10	55
12:00 PM	1:00 PM	45%	17	89%	25	45%	13	89%	16	71
1:00 PM	2:00 PM	42%	16	100%	27	42%	12	100%	17	72
2:00 PM	3:00 PM	42%	16	73%	20	42%	12	73%	13	61
3:00 PM	4:00 PM	47%	17	73%	20	47%	14	73%	13	64
4:00 PM	5:00 PM	49%	18	66%	18	49%	14	66%	12	62
5:00 PM	6:00 PM	56%	21	70%	19	56%	16	70%	12	68
6:00 PM	7:00 PM	64%	24	75%	21	64%	18	75%	13	76
7:00 PM	8:00 PM	72%	26	70%	19	72%	21	70%	12	78
8:00 PM	9:00 PM	77%	28	54%	15	77%	22	54%	10	75
9:00 PM	10:00 PM	85%	31	48%	13	85%	24	48%	9	77
10:00 PM	11:00 PM	92%	34	0%	-	92%	26	0%	-	60
11:00 PM	12:00 AM	95%	35	0%	-	95%	27	0%	-	62
								Peak Parking Demand		**78**

Notes:

1) "%of Peak Demand" based on Institute of Transportation Engineers (ITE) Parking Generation Manual, 5th Edition Land Use 220 - Multifamily Housing (Low-Rise) and Land Use 820 - Shopping Center Hourly Demand Distributions.

TABLE NO. P-2
SHARED PARKING ANALYSIS
WEEKEND

		45 Beekman Street				High Street				
Use		**Residential**		**Retail**		**Residential**		**Retail**		
Size		36 Units		8,670 Sq. Ft.		28 Units		5,418 Sq. Ft.		**Total Peak**
Demand Factor		1 /Unit		3.0 /1,000 Sq. Ft.		1 /Unit		3.0 /1,000 Sq. Ft.		**Parking**
Peak Hour Demand		36 Spaces		27 Spaces		28 Spaces		17 Spaces		**Demand**
Time of Day		**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**Parking**
Start	**End**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Spaces**
12:00 AM	1:00 AM	92%	34	0%	-	92%	26	0%	-	60
1:00 AM	2:00 AM	92%	34	0%	-	92%	26	0%	-	60
2:00 AM	3:00 AM	92%	34	0%	-	92%	26	0%	-	60
3:00 AM	4:00 AM	92%	34	0%	-	92%	26	0%	-	60
4:00 AM	5:00 AM	92%	34	0%	-	92%	26	0%	-	60
5:00 AM	6:00 AM	100%	36	0%	-	100%	28	0%	-	64
6:00 AM	7:00 AM	99%	36	0%	-	99%	28	0%	-	64
7:00 AM	8:00 AM	97%	35	0%	-	97%	28	0%	-	63
8:00 AM	9:00 AM	92%	34	0%	-	92%	26	0%	-	60
9:00 AM	10:00 AM	83%	30	38%	11	83%	24	38%	7	72
10:00 AM	11:00 AM	79%	29	55%	15	79%	23	55%	10	77
11:00 AM	12:00 PM	71%	26	66%	18	71%	20	66%	12	76
12:00 PM	1:00 PM	68%	25	85%	23	68%	20	85%	15	83
1:00 PM	2:00 PM	65%	24	100%	27	65%	19	100%	17	87
2:00 PM	3:00 PM	62%	23	96%	26	62%	18	96%	17	84
3:00 PM	4:00 PM	66%	24	79%	22	66%	19	79%	14	79
4:00 PM	5:00 PM	66%	24	66%	18	66%	19	66%	12	73
5:00 PM	6:00 PM	67%	25	64%	18	67%	19	64%	11	73
6:00 PM	7:00 PM	70%	26	67%	19	70%	20	67%	12	77
7:00 PM	8:00 PM	78%	29	70%	19	78%	22	70%	12	82
8:00 PM	9:00 PM	77%	28	70%	19	77%	22	70%	12	81
9:00 PM	10:00 PM	80%	29	51%	14	80%	23	51%	9	75
10:00 PM	11:00 PM	82%	30	0%	-	82%	23	0%	-	53
11:00 PM	12:00 AM	88%	32	0%	-	88%	25	0%	-	57
								Peak Parking Demand		**87**

Notes:

1) "%of Peak Demand" based on Institute of Transportation Engineers (ITE) Parking Generation Manual, 5th Edition Land Use 220 - Multifamily Housing (Low-Rise) and Land Use 820 - Shopping Center Hourly Demand Distributions.

TABLE NO. P-1A
SHARED PARKING ANALYSIS
WEEKDAY (WITH RAIL CREDIT)

		45 Beekman Street				High Street				
Use		**Residential**		**Retail**		**Residential**		**Retail**		
Size		36 Units		8,670 Sq. Ft.		28 Units		5,418 Sq. Ft.		**Total Peak Parking Demand**
Demand Factor		1 /Unit		3.0 /1,000 Sq. Ft.		1 /Unit		3.0 /1,000 Sq. Ft.		
Peak Hour Demand[2]		33 Spaces		27 Spaces		26 Spaces		17 Spaces		
Time of Day		**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**Parking**
Start	**End**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Spaces**
12:00 AM	1:00 AM	97%	33	0%	-	97%	26	0%	-	59
1:00 AM	2:00 AM	97%	33	0%	-	97%	26	0%	-	59
2:00 AM	3:00 AM	97%	33	0%	-	97%	26	0%	-	59
3:00 AM	4:00 AM	97%	33	0%	-	97%	26	0%	-	59
4:00 AM	5:00 AM	97%	33	0%	-	97%	26	0%	-	59
5:00 AM	6:00 AM	100%	33	0%	-	100%	26	0%	-	59
6:00 AM	7:00 AM	96%	32	0%	-	96%	25	0%	-	57
7:00 AM	8:00 AM	85%	29	0%	-	85%	23	0%	-	52
8:00 AM	9:00 AM	67%	23	19%	6	67%	18	19%	4	51
9:00 AM	10:00 AM	54%	18	33%	9	54%	15	33%	6	48
10:00 AM	11:00 AM	48%	16	47%	13	48%	13	47%	8	50
11:00 AM	12:00 PM	45%	15	55%	15	45%	12	55%	10	52
12:00 PM	1:00 PM	45%	15	89%	25	45%	12	89%	16	68
1:00 PM	2:00 PM	42%	14	100%	27	42%	11	100%	17	69
2:00 PM	3:00 PM	42%	14	73%	20	42%	11	73%	13	58
3:00 PM	4:00 PM	47%	16	73%	20	47%	13	73%	13	62
4:00 PM	5:00 PM	49%	17	66%	18	49%	13	66%	12	60
5:00 PM	6:00 PM	56%	19	70%	19	56%	15	70%	12	65
6:00 PM	7:00 PM	64%	22	75%	21	64%	17	75%	13	73
7:00 PM	8:00 PM	72%	24	70%	19	72%	19	70%	12	74
8:00 PM	9:00 PM	77%	26	54%	15	77%	21	54%	10	72
9:00 PM	10:00 PM	85%	29	48%	13	85%	23	48%	9	74
10:00 PM	11:00 PM	92%	31	0%	-	92%	24	0%	-	55
11:00 PM	12:00 AM	95%	32	0%	-	95%	25	0%	-	57
								Peak Parking Demand		**74**

Notes:

1) "%of Peak Demand" based on Institute of Transportation Engineers (ITE) Parking Generation Manual, 5th Edition Land Use 220 - Multifamily Housing (Low-Rise) and Land Use 820 - Shopping Center Hourly Demand Distributions.

2) "Peak Hour Demand" assumes a 10% credit for proximity to the Beacon Metro North Train Station based on ITE data.

TABLE NO. P-2A
SHARED PARKING ANALYSIS
WEEKEND (WITH RAIL CREDIT)

		45 Beekman Street				High Street				
Use		**Residential**		**Retail**		**Residential**		**Retail**		
Size		36 Units		8,670 Sq. Ft.		28 Units		5,418 Sq. Ft.		**Total Peak Parking Demand**
Demand Factor		1 /Unit		3.0 /1,000 Sq. Ft.		1 /Unit		3.0 /1,000 Sq. Ft.		
Peak Hour Demand[2]		33 Spaces		27 Spaces		26 Spaces		17 Spaces		
Time of Day		**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**Parking**
Start	**End**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Spaces**
12:00 AM	1:00 AM	92%	31	0%	-	92%	24	0%	-	55
1:00 AM	2:00 AM	92%	31	0%	-	92%	24	0%	-	55
2:00 AM	3:00 AM	92%	31	0%	-	92%	24	0%	-	55
3:00 AM	4:00 AM	92%	31	0%	-	92%	24	0%	-	55
4:00 AM	5:00 AM	92%	31	0%	-	92%	24	0%	-	55
5:00 AM	6:00 AM	100%	33	0%	-	100%	26	0%	-	59
6:00 AM	7:00 AM	99%	33	0%	-	99%	26	0%	-	59
7:00 AM	8:00 AM	97%	33	0%	-	97%	26	0%	-	59
8:00 AM	9:00 AM	92%	31	0%	-	92%	24	0%	-	55
9:00 AM	10:00 AM	83%	28	38%	11	83%	22	38%	7	68
10:00 AM	11:00 AM	79%	27	55%	15	79%	21	55%	10	73
11:00 AM	12:00 PM	71%	24	66%	18	71%	19	66%	12	73
12:00 PM	1:00 PM	68%	23	85%	23	68%	18	85%	15	79
1:00 PM	2:00 PM	65%	22	100%	27	65%	17	100%	17	83
2:00 PM	3:00 PM	62%	21	96%	26	62%	17	96%	17	81
3:00 PM	4:00 PM	66%	22	79%	22	66%	18	79%	14	76
4:00 PM	5:00 PM	66%	22	66%	18	66%	18	66%	12	70
5:00 PM	6:00 PM	67%	23	64%	18	67%	18	64%	11	70
6:00 PM	7:00 PM	70%	24	67%	19	70%	19	67%	12	74
7:00 PM	8:00 PM	78%	26	70%	19	78%	21	70%	12	78
8:00 PM	9:00 PM	77%	26	70%	19	77%	21	70%	12	78
9:00 PM	10:00 PM	80%	27	51%	14	80%	21	51%	9	71
10:00 PM	11:00 PM	82%	28	0%	-	82%	22	0%	-	50
11:00 PM	12:00 AM	88%	30	0%	-	88%	23	0%	-	53
								Peak Parking Demand		**83**

Notes:

1) "%of Peak Demand" based on Institute of Transportation Engineers (ITE) Parking Generation Manual, 5th Edition Land Use 220 - Multifamily Housing (Low-Rise) and Land Use 820 - Shopping Center Hourly Demand Distributions.

2) "Peak Hour Demand" assumes a 10% credit for proximity to the Beacon Metro North Train Station based on ITE data.

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Traffic & Parking Study

Appendix C | Level of Service Standards

Level of Service Standards

Level of Service for Signalized Intersections

Level of Service (LOS) can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for the entire intersection or an approach. Control delay and volume-to-capacity (v/c) ratio are used to characterize LOS for a lane group. Delay quantifies the increase in travel time due to traffic signal control. It is also a measure of driver discomfort and fuel consumption. The volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group.

- **LOS A** describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.
- **LOS B** describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.
- **LOS C** describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate.
- **LOS D** describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long.
- **LOS E** describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long.
- **LOS F** describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long.

A lane group can incur a delay less than 80 s/veh when the volume-to-capacity ratio exceeds 1.0. This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and volume-to-capacity ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicates that cycle capacity is fully utilized and represents failure from a capacity perspective (just as delay in excess of 80 s/veh represents failure from a delay perspective).

The Level of Service Criteria for signalized intersections are given in Exhibit 19-8 from the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 19-8 LOS by Volume-to-Capacity Ratio

Control Delay (s/veh)	v/c ≤ 1.0	v/c ≥ 1.0
≤10	A	F
>10-20	B	F
>20-35	C	F
>35-55	D	F
>55-80	E	F
>80	F	F

For approach-based and intersection wide assessments, LOS is defined solely by control delay.

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Level of Service Criteria For Two-Way Stop-Controlled (TWSC) Unsignalized Intersections

Level of Service (LOS) for a two-way stop-controlled (TWSC) intersection is determined by the computed or measured control delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns. LOS is not defined for the intersection as a whole or for major-street approaches.

The Level of Service Criteria for TWSC unsignalized intersections are given in Exhibit 20-2 from the Highway Capacity Manual, 6th Edition published by the Transportation Research Board.

Exhibit 20-2 LOS by Volume-to-Capacity Ratio

Control Delay (s/veh)	v/c ≤ 1.0	v/c ≥ 1.0
0-10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

The LOS criteria apply to each lane on a given approach and to each approach on the minor street.
LOS is not calculated for major-street approaches or for the intersection as a whole.

As Exhibit 20-2 notes, LOS F is assigned to the movement if the volume-to-capacity ratio for the movement exceeds 1.0, regardless of the control delay.

The Level of Service Criteria for unsignalized intersections are somewhat different from the criteria for signalized intersections.

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Traffic & Parking Study

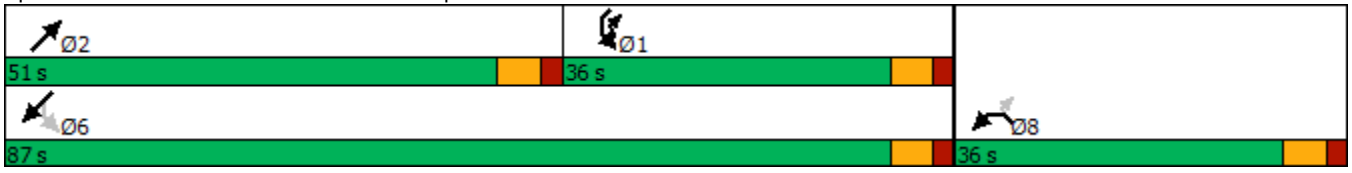
Appendix D | Capacity Analysis

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	58	248	475	45	274	629
Future Volume (vph)	58	248	475	45	274	629
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		1.00			
Frt		0.850	0.988			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1809	0	1778	1854
Flt Permitted	0.950				0.303	
Satd. Flow (perm)	1715	1544	1809	0	567	1854
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	2			1	1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%
Adj. Flow (vph)	61	261	500	47	288	662
Shared Lane Traffic (%)						
Lane Group Flow (vph)	61	261	547	0	288	662
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	1	1	1		1	1
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Call	Call	Call		Call	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.27	0.44	0.73		0.44	0.47
Control Delay	34.1	18.2	25.2		11.1	6.4
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	34.1	18.2	25.2		11.1	6.4
Queue Length 50th (ft)	22	69	171		32	95
Queue Length 95th (ft)	73	175	428		95	264
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	938	894	1294		1147	1768
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.07	0.29	0.42		0.25	0.37

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 66.5	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	

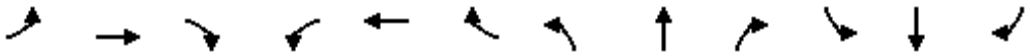
Splits and Phases: 1: NYS Route 9D & Verplanck Avenue



Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	58	248	475	45	274	629	
Future Volume (veh/h)	58	248	475	45	274	629	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1894	
Adj Flow Rate, veh/h	61	261	500	47	288	662	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	3	
Cap, veh/h	223	331	612	58	371	1132	
Arrive On Green	0.14	0.14	0.37	0.37	0.09	0.60	
Sat Flow, veh/h	1641	1460	1636	154	1818	1894	
Grp Volume(v), veh/h	61	261	0	547	288	662	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1789	1818	1894	
Q Serve(g_s), s	1.5	3.5	0.0	12.4	1.6	9.7	
Cycle Q Clear(g_c), s	1.5	3.5	0.0	12.4	1.6	9.7	
Prop In Lane	1.00	1.00		0.09	1.00		
Lane Grp Cap(c), veh/h	223	331	0	670	371	1132	
V/C Ratio(X)	0.27	0.79	0.00	0.82	0.78	0.58	
Avail Cap(c_a), veh/h	1092	1104	0	1787	1418	3405	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	17.5	16.4	0.0	12.7	18.6	5.6	
Incr Delay (d2), s/veh	0.2	1.6	0.0	2.5	1.3	0.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.5	2.3	0.0	4.4	2.6	2.3	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	17.7	18.0	0.0	15.2	19.9	6.1	
LnGrp LOS	B	B	A	B	B	A	
Approach Vol, veh/h	322		547			950	
Approach Delay, s/veh	18.0		15.2			10.3	
Approach LOS	B		B			B	

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.1	22.9			32.9	12.1
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0			81.0	30.0
Max Q Clear Time (g_c+I1), s	3.6	14.4			11.7	5.5
Green Ext Time (p_c), s	0.6	2.3			3.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	13.1
HCM 6th LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	3	24	8	0	8	16	484	5	1	653	37
Future Volume (vph)	18	3	24	8	0	8	16	484	5	1	653	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.928			0.932			0.999			0.993	
Flt Protected		0.980			0.976		0.950					
Satd. Flow (prot)	0	1767	0	0	1661	0	1770	1851	0	0	1915	0
Flt Permitted		0.980			0.976		0.950					
Satd. Flow (perm)	0	1767	0	0	1661	0	1770	1851	0	0	1915	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		8	14		12	8		14	12		6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	4%	13%	2%	2%	2%	6%	2%	2%	4%	11%
Adj. Flow (vph)	19	3	25	8	0	8	17	509	5	1	687	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	47	0	0	16	0	17	514	0	0	727	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

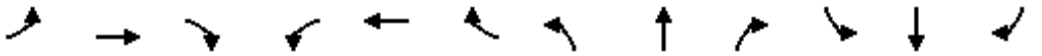
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	3	24	8	0	8	16	484	5	1	653	37
Future Vol, veh/h	18	3	24	8	0	8	16	484	5	1	653	37
Conflicting Peds, #/hr	6	0	8	14	0	12	8	0	14	12	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	4	13	2	2	2	6	2	2	4	11
Mvmt Flow	19	3	25	8	0	8	17	509	5	1	687	39

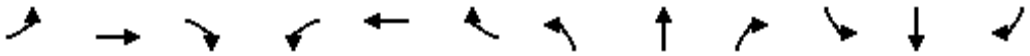
Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1279	1279	729	1297	1296	538	734	0	0	528	0	0
Stage 1	717	717	-	560	560	-	-	-	-	-	-	-
Stage 2	562	562	-	737	736	-	-	-	-	-	-	-
Critical Hdwy	6.32	5.72	5.84	7.23	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.32	4.72	-	6.23	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.32	4.72	-	6.23	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.336	3.617	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	190	221	455	132	162	543	871	-	-	1039	-	-
Stage 1	493	508	-	494	511	-	-	-	-	-	-	-
Stage 2	580	577	-	394	425	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	181	212	446	118	155	530	865	-	-	1026	-	-
Mov Cap-2 Maneuver	181	212	-	118	155	-	-	-	-	-	-	-
Stage 1	480	503	-	478	494	-	-	-	-	-	-	-
Stage 2	554	558	-	364	421	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.2	25.4	0.3	0
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	865	-	-	269	193	1026	-	-
HCM Lane V/C Ratio	0.019	-	-	0.176	0.087	0.001	-	-
HCM Control Delay (s)	9.2	-	-	21.2	25.4	8.5	0	-
HCM Lane LOS	A	-	-	C	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.3	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	4	29	8	9	7	16	402	2	2	447	236
Future Volume (vph)	103	4	29	8	9	7	16	402	2	2	447	236
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.98		0.99		1.00	1.00		0.99	0.99	
Frt			0.850		0.960			0.999			0.948	
Flt Protected		0.954			0.984		0.950			0.950		
Satd. Flow (prot)	0	1713	1494	0	1835	0	1754	1844	0	1743	1688	0
Flt Permitted		0.714			0.891		0.276			0.472		
Satd. Flow (perm)	0	1280	1460	0	1660	0	509	1844	0	860	1688	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		8						38	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	1		2	2		1	7		14	14		7
Confl. Bikes (#/hr)						1			1			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	25%	7%	2%	2%	2%	6%	6%	2%	2%	5%	2%
Adj. Flow (vph)	111	4	31	9	10	8	17	432	2	2	481	254
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	115	31	0	27	0	17	434	0	2	735	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	



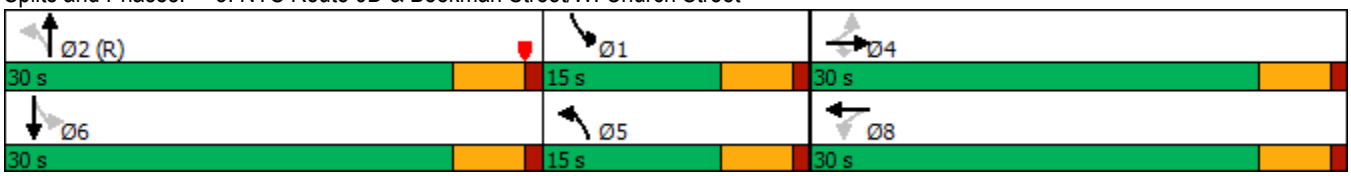
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0		10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				2	2							
v/c Ratio		0.54	0.09		0.10		0.04	0.33		0.00	0.60	
Control Delay		36.2	0.6		18.4		3.2	7.4		5.5	12.9	
Queue Delay		0.0	0.0		0.0		0.0	0.2		0.0	0.0	
Total Delay		36.2	0.6		18.4		3.2	7.6		5.5	12.9	
Queue Length 50th (ft)		51	0		8		1	71		0	128	
Queue Length 95th (ft)		82	0		23		m5	148		3	#542	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		426	554		558		579	1325		816	1224	
Starvation Cap Reductn		0	0		0		0	274		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.27	0.06		0.05		0.03	0.41		0.00	0.60	

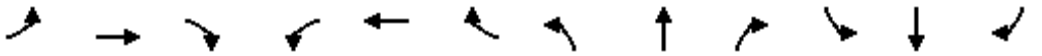
Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	4	29	8	9	7	16	402	2	2	447	236
Future Volume (veh/h)	103	4	29	8	9	7	16	402	2	2	447	236
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1817	1506	1773	2263	2263	2263	2046	2046	2106	1817	1773	1817
Adj Flow Rate, veh/h	111	4	31	9	10	8	17	432	2	2	481	254
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	25	7	2	2	2	6	6	2	2	5	2
Cap, veh/h	231	6	286	82	96	48	633	678	3	714	358	189
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.28	0.33	0.33	0.28	0.33	0.33
Sat Flow, veh/h	716	33	1494	95	501	251	1948	2034	9	1731	1074	567
Grp Volume(v), veh/h	115	0	31	27	0	0	17	0	434	2	0	735
Grp Sat Flow(s),veh/h/ln	749	0	1494	846	0	0	1948	0	2044	1731	0	1642
Q Serve(g_s), s	0.0	0.0	1.3	0.1	0.0	0.0	0.0	0.0	13.5	0.0	0.0	25.0
Cycle Q Clear(g_c), s	12.2	0.0	1.3	12.3	0.0	0.0	0.0	0.0	13.5	0.0	0.0	25.0
Prop In Lane	0.97		1.00	0.33		0.30	1.00		0.00	1.00		0.35
Lane Grp Cap(c), veh/h	237	0	286	226	0	0	633	0	681	714	0	547
V/C Ratio(X)	0.48	0.00	0.11	0.12	0.00	0.00	0.03	0.00	0.64	0.00	0.00	1.34
Avail Cap(c_a), veh/h	398	0	498	497	0	0	633	0	681	714	0	547
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.94	0.00	0.94	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.4	0.0	25.1	25.3	0.0	0.0	19.7	0.0	21.2	12.2	0.0	25.0
Incr Delay (d2), s/veh	0.6	0.0	0.1	0.1	0.0	0.0	0.0	0.0	4.2	0.0	0.0	166.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.4	0.4	0.0	0.0	0.2	0.0	6.9	0.0	0.0	34.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	0.0	25.1	25.4	0.0	0.0	19.7	0.0	25.4	12.2	0.0	191.4
LnGrp LOS	C	A	C	C	A	A	B	A	C	B	A	F
Approach Vol, veh/h		146			27			451			737	
Approach Delay, s/veh		29.0			25.4			25.2			190.9	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.7	30.0		19.3	25.7	30.0		19.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	2.0	15.5		14.2	2.0	27.0		14.3				
Green Ext Time (p_c), s	0.0	0.7		0.2	0.0	0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		115.3	
HCM 6th LOS		F	

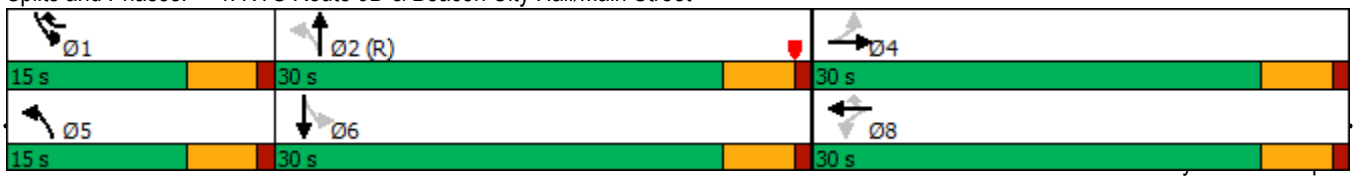
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	4	2	8	6	107	4	310	24	222	257	5
Future Volume (vph)	3	4	2	8	6	107	4	310	24	222	257	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.96		1.00			1.00	
Frt		0.973				0.850		0.989			0.997	
Flt Protected		0.984			0.973		0.950			0.950		
Satd. Flow (prot)	0	1797	0	0	1923	1647	1832	1859	0	1743	1846	0
Flt Permitted		0.883			0.817		0.578			0.425		
Satd. Flow (perm)	0	1613	0	0	1614	1574	1115	1859	0	780	1846	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		3									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			9			15			21			12
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	2%	5%	2%	1%	0%
Adj. Flow (vph)	5	7	3	9	7	118	5	392	30	252	292	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	16	118	5	422	0	252	298	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

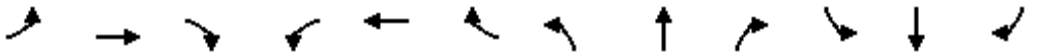
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0	15.0	15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	20.0%	20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0	10.0	10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	15	15		15	15			21				
v/c Ratio		0.08			0.08	0.39	0.01	0.35		0.33	0.19	
Control Delay		23.0			26.1	25.1	5.8	11.0		4.3	4.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		23.0			26.1	25.1	5.8	11.0		4.3	4.0	
Queue Length 50th (ft)		5			7	53	0	50		0	0	
Queue Length 95th (ft)		10			19	51	5	220		59	72	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		539			538	349	969	1211		780	1560	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.03			0.03	0.34	0.01	0.35		0.32	0.19	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	4	2	8	6	107	4	310	24	222	257	5
Future Volume (veh/h)	3	4	2	8	6	107	4	310	24	222	257	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.95		0.94	0.97		0.94	0.99		0.96	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2185	2018	1988	1943	1817	1832	1847
Adj Flow Rate, veh/h	5	7	3	9	7	118	5	392	30	252	292	6
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	2	0	2	5	2	1	0
Cap, veh/h	109	129	44	191	136	381	783	1066	82	675	1185	24
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.00	0.59	0.59	0.08	0.66	0.66
Sat Flow, veh/h	334	969	326	871	1016	1747	1922	1817	139	1731	1788	37
Grp Volume(v), veh/h	15	0	0	16	0	118	5	0	422	252	0	298
Grp Sat Flow(s),veh/h/ln	1629	0	0	1887	0	1747	1922	0	1956	1731	0	1825
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	4.3	0.1	0.0	8.5	3.9	0.0	4.9
Cycle Q Clear(g_c), s	0.5	0.0	0.0	0.5	0.0	4.3	0.1	0.0	8.5	3.9	0.0	4.9
Prop In Lane	0.33		0.20	0.56		1.00	1.00		0.07	1.00		0.02
Lane Grp Cap(c), veh/h	282	0	0	327	0	381	783	0	1148	675	0	1209
V/C Ratio(X)	0.05	0.00	0.00	0.05	0.00	0.31	0.01	0.00	0.37	0.37	0.00	0.25
Avail Cap(c_a), veh/h	589	0	0	692	0	730	1032	0	1148	768	0	1209
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.79	0.00	0.79
Uniform Delay (d), s/veh	28.4	0.0	0.0	28.4	0.0	24.9	6.3	0.0	8.2	5.1	0.0	5.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.9	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.2	0.0	1.7	0.0	0.0	3.4	1.0	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	0.0	0.0	28.4	0.0	25.1	6.3	0.0	9.1	5.2	0.0	5.5
LnGrp LOS	C	A	A	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		15			134			427			550	
Approach Delay, s/veh		28.4			25.5			9.0			5.4	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	49.0		15.0	5.3	54.7		15.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	5.9	10.5		2.5	2.1	6.9		6.3				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		9.5	
HCM 6th LOS		A	



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	1	1	1	135	261	0
Future Volume (vph)	1	1	1	135	261	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976					
Satd. Flow (prot)	1838	0	0	1939	1909	0
Flt Permitted	0.976					
Satd. Flow (perm)	1838	0	0	1939	1909	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	16	16			14
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%
Adj. Flow (vph)	1	1	1	171	330	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	0	172	330	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	135	261	0
Future Vol, veh/h	1	1	1	135	261	0
Conflicting Peds, #/hr	14	16	16	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	4	2	2
Mvmt Flow	1	1	1	171	330	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	533	362	346	0	-	0
Stage 1	346	-	-	-	-	-
Stage 2	187	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	682	755	1213	-	-	-
Stage 1	868	-	-	-	-	-
Stage 2	937	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	662	733	1195	-	-	-
Mov Cap-2 Maneuver	662	-	-	-	-	-
Stage 1	855	-	-	-	-	-
Stage 2	924	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.2	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1195	-	696	-	-
HCM Lane V/C Ratio	0.001	-	0.004	-	-
HCM Control Delay (s)	8	0	10.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

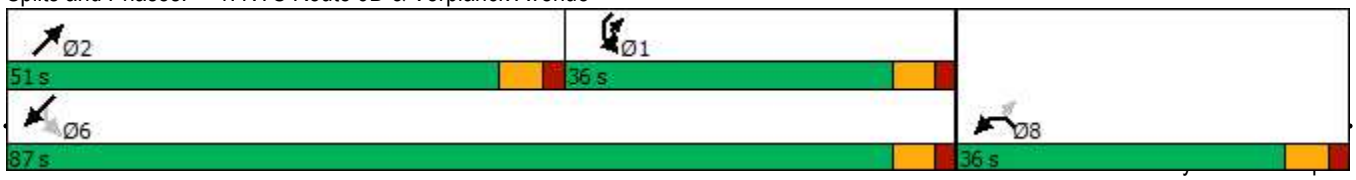


Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	59	297	625	50	219	574
Future Volume (vph)	59	297	625	50	219	574
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		1.00			
Frt		0.850	0.990			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1813	0	1778	1854
Flt Permitted	0.950				0.217	
Satd. Flow (perm)	1720	1544	1813	0	406	1854
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	1			3	3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%
Adj. Flow (vph)	62	313	658	53	231	604
Shared Lane Traffic (%)						
Lane Group Flow (vph)	62	313	711	0	231	604
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	1	1	1		1	1
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Call	Call	Call		Call	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	3		3			
v/c Ratio	0.36	0.58	0.77		0.38	0.40
Control Delay	45.1	26.9	27.9		10.7	4.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	45.1	26.9	27.9		10.7	4.9
Queue Length 50th (ft)	34	139	313		25	85
Queue Length 95th (ft)	77	213	#728		75	229
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	589	614	928		830	1650
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.11	0.51	0.77		0.28	0.37

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 89.7	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue

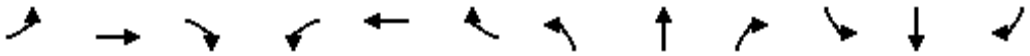




Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	59	297	625	50	219	574	
Future Volume (veh/h)	59	297	625	50	219	574	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1894	
Adj Flow Rate, veh/h	62	313	658	53	231	604	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	3	
Cap, veh/h	292	367	744	60	293	1178	
Arrive On Green	0.18	0.18	0.45	0.45	0.07	0.62	
Sat Flow, veh/h	1641	1460	1659	134	1818	1894	
Grp Volume(v), veh/h	62	313	0	711	231	604	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1793	1818	1894	
Q Serve(g_s), s	1.9	7.9	0.0	21.7	2.0	10.6	
Cycle Q Clear(g_c), s	1.9	7.9	0.0	21.7	2.0	10.6	
Prop In Lane	1.00	1.00		0.07	1.00		
Lane Grp Cap(c), veh/h	292	367	0	804	293	1178	
V/C Ratio(X)	0.21	0.85	0.00	0.88	0.79	0.51	
Avail Cap(c_a), veh/h	821	837	0	1345	1069	2557	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	21.1	21.4	0.0	15.1	25.7	6.3	
Incr Delay (d2), s/veh	0.1	2.2	0.0	4.1	1.8	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.7	4.0	0.0	8.3	3.1	3.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.2	23.6	0.0	19.2	27.5	6.6	
LnGrp LOS	C	C	A	B	C	A	
Approach Vol, veh/h	375		711			835	
Approach Delay, s/veh	23.2		19.2			12.4	
Approach LOS	C		B			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	10.4	32.9				43.3	16.7
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	4.0	23.7				12.6	9.9
Green Ext Time (p_c), s	0.4	3.1				2.7	0.8

Intersection Summary		
HCM 6th Ctrl Delay		17.0
HCM 6th LOS		B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	5	11	6	3	4	14	638	5	5	584	24
Future Volume (vph)	21	5	11	6	3	4	14	638	5	5	584	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.959			0.961			0.999			0.995	
Flt Protected		0.972			0.976		0.950					
Satd. Flow (prot)	0	1830	0	0	1696	0	1770	1923	0	0	1945	0
Flt Permitted		0.972			0.976		0.950					
Satd. Flow (perm)	0	1830	0	0	1696	0	1770	1923	0	0	1945	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	4		4	2		2	4		2	2		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	25%	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	23	5	12	7	3	4	15	693	5	5	635	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	14	0	15	698	0	0	666	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

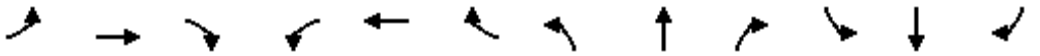
Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	5	11	6	3	4	14	638	5	5	584	24
Future Vol, veh/h	21	5	11	6	3	4	14	638	5	5	584	24
Conflicting Peds, #/hr	4	0	4	2	0	2	4	0	2	2	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	25	2	2	2	2	3	2
Mvmt Flow	23	5	12	7	3	4	15	693	5	5	635	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1395	1392	656	1399	1403	702	665	0	0	700	0	0
Stage 1	662	662	-	728	728	-	-	-	-	-	-	-
Stage 2	733	730	-	671	675	-	-	-	-	-	-	-
Critical Hdwy	6.32	5.72	5.82	7.12	6.52	6.45	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.32	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.32	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.525	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	162	193	501	118	140	401	924	-	-	897	-	-
Stage 1	522	532	-	415	429	-	-	-	-	-	-	-
Stage 2	485	503	-	446	453	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	153	187	497	110	136	399	921	-	-	895	-	-
Mov Cap-2 Maneuver	153	187	-	110	136	-	-	-	-	-	-	-
Stage 1	512	525	-	408	421	-	-	-	-	-	-	-
Stage 2	467	494	-	425	447	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27.6	31.5	0.2	0.1
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	921	-	-	199	150	895	-	-
HCM Lane V/C Ratio	0.017	-	-	0.202	0.094	0.006	-	-
HCM Control Delay (s)	9	-	-	27.6	31.5	9	0	-
HCM Lane LOS	A	-	-	D	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.3	0	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	275	12	24	1	7	6	31	376	12	4	462	135
Future Volume (vph)	275	12	24	1	7	6	31	376	12	4	462	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.99		1.00	1.00		1.00	0.99	
Frt			0.850		0.941			0.995			0.966	
Flt Protected		0.954			0.997		0.950			0.950		
Satd. Flow (prot)	0	1759	1567	0	1815	0	1690	1890	0	1743	1746	0
Flt Permitted		0.723			0.985		0.241			0.426		
Satd. Flow (perm)	0	1328	1567	0	1793	0	428	1890	0	781	1746	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85		7			2			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	2					2	6		2	2		6
Confl. Bikes (#/hr)						1			1			1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	10%	3%	2%	2%	3%	2%
Adj. Flow (vph)	299	13	26	1	8	7	34	409	13	4	502	147
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	312	26	0	16	0	34	422	0	4	649	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

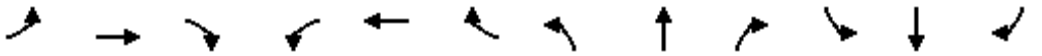
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0		20.0	30.0		20.0	30.0	
Total Split (%)	44.4%	44.4%	44.4%	44.4%	44.4%		22.2%	33.3%		22.2%	33.3%	
Maximum Green (s)	35.0	35.0	35.0	35.0	35.0		15.0	25.0		15.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				2	2							
v/c Ratio		0.82	0.05		0.03		0.11	0.38		0.01	0.68	
Control Delay		46.3	0.2		14.3		9.8	12.0		10.5	22.9	
Queue Delay		0.0	0.0		0.0		0.0	0.4		0.0	0.0	
Total Delay		46.3	0.2		14.3		9.8	12.3		10.5	22.9	
Queue Length 50th (ft)		164	0		4		7	172		1	272	
Queue Length 95th (ft)		230	0		16		16	142		6	#554	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		516	661		701		523	1099		714	954	
Starvation Cap Reductn		0	0		0		0	265		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.60	0.04		0.02		0.07	0.51		0.01	0.68	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	275	12	24	1	7	6	31	376	12	4	462	135
Future Volume (veh/h)	275	12	24	1	7	6	31	376	12	4	462	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2263	2263	2263	1986	2091	2106	1817	1803	1817
Adj Flow Rate, veh/h	299	13	26	1	8	7	34	409	13	4	502	147
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	10	3	2	2	3	2
Cap, veh/h	174	4	607	43	263	205	395	559	18	456	369	108
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.17	0.28	0.28	0.17	0.28	0.28
Sat Flow, veh/h	246	11	1561	0	677	526	1891	2013	64	1731	1328	389
Grp Volume(v), veh/h	312	0	26	16	0	0	34	0	422	4	0	649
Grp Sat Flow(s),veh/h/ln	257	0	1561	1203	0	0	1891	0	2077	1731	0	1717
Q Serve(g_s), s	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	16.6	0.0	0.0	25.0
Cycle Q Clear(g_c), s	35.0	0.0	0.9	35.0	0.0	0.0	0.0	0.0	16.6	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.06		0.44	1.00		0.03	1.00		0.23
Lane Grp Cap(c), veh/h	178	0	607	510	0	0	395	0	577	456	0	477
V/C Ratio(X)	1.75	0.00	0.04	0.03	0.00	0.00	0.09	0.00	0.73	0.01	0.00	1.36
Avail Cap(c_a), veh/h	178	0	607	510	0	0	395	0	577	456	0	477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.93	0.00	0.93	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.2	0.0	17.1	18.1	0.0	0.0	31.3	0.0	29.5	24.7	0.0	32.5
Incr Delay (d2), s/veh	359.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	175.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.7	0.0	0.3	0.2	0.0	0.0	0.6	0.0	9.2	0.1	0.0	33.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	394.9	0.0	17.1	18.1	0.0	0.0	31.3	0.0	36.9	24.7	0.0	207.9
LnGrp LOS	F	A	B	B	A	A	C	A	D	C	A	F
Approach Vol, veh/h		338			16			456			653	
Approach Delay, s/veh		365.9			18.1			36.5			206.7	
Approach LOS		F			B			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	30.0		40.0	20.0	30.0		40.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	25.0		35.0	15.0	25.0		35.0				
Max Q Clear Time (g_c+I1), s	2.0	18.6		37.0	2.0	27.0		37.0				
Green Ext Time (p_c), s	0.0	0.5		0.0	0.0	0.0		0.0				

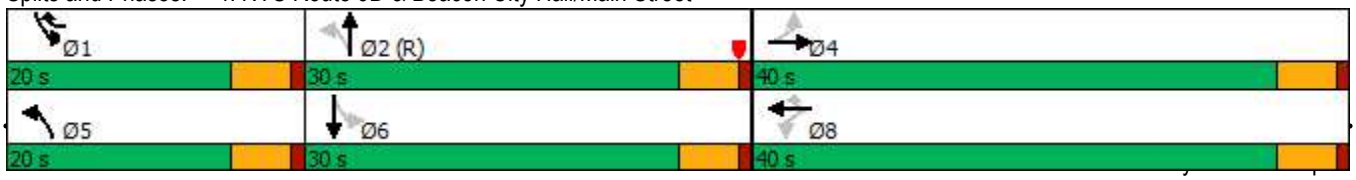
Intersection Summary												
HCM 6th Ctrl Delay			188.4									
HCM 6th LOS			F									

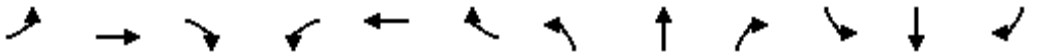
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	7	1	35	1	152	1	265	64	215	274	0
Future Volume (vph)	1	7	1	35	1	152	1	265	64	215	274	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00				0.95		0.99				
Frt		0.983				0.850		0.971				
Flt Protected		0.994			0.954		0.950			0.950		
Satd. Flow (prot)	0	1838	0	0	1885	1647	1832	1804	0	1743	1853	0
Flt Permitted		0.969			0.720		0.571			0.418		
Satd. Flow (perm)	0	1792	0	0	1423	1566	1101	1804	0	767	1853	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		2										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			9			15			21			12
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	2%	5%	2%	1%	0%
Adj. Flow (vph)	2	12	2	38	1	167	1	335	81	244	311	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	39	167	1	416	0	244	311	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	40.0	40.0		40.0	40.0	20.0	20.0	30.0		20.0	30.0	
Total Split (%)	44.4%	44.4%		44.4%	44.4%	22.2%	22.2%	33.3%		22.2%	33.3%	
Maximum Green (s)	35.0	35.0		35.0	35.0	15.0	15.0	25.0		15.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	9	9		15	15			21				
v/c Ratio		0.06			0.20	0.42	0.00	0.38		0.33	0.21	
Control Delay		25.9			32.2	26.2	7.0	14.7		5.8	4.5	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.2	
Total Delay		25.9			32.2	26.2	7.0	14.7		5.8	4.7	
Queue Length 50th (ft)		8			22	80	0	99		16	20	
Queue Length 95th (ft)		14			43	89	2	232		69	73	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		698			553	464	969	1100		775	1476	
Starvation Cap Reductn		0			0	0	0	0		0	560	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.02			0.07	0.36	0.00	0.38		0.31	0.34	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	7	1	35	1	152	1	265	64	215	274	0
Future Volume (veh/h)	1	7	1	35	1	152	1	265	64	215	274	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.95	0.97		0.95	0.99		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2185	2018	1988	1943	1817	1832	1847
Adj Flow Rate, veh/h	2	12	2	38	1	167	1	335	81	244	311	0
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	2	0	2	5	2	1	0
Cap, veh/h	57	219	33	314	7	392	786	942	228	679	1255	0
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.00	0.61	0.61	0.07	0.68	0.00
Sat Flow, veh/h	81	1485	224	1592	51	1757	1922	1533	371	1731	1832	0
Grp Volume(v), veh/h	16	0	0	39	0	167	1	0	416	244	311	0
Grp Sat Flow(s),veh/h/ln	1791	0	0	1643	0	1757	1922	0	1904	1731	1832	0
Q Serve(g_s), s	0.0	0.0	0.0	1.0	0.0	7.4	0.0	0.0	9.7	4.3	5.8	0.0
Cycle Q Clear(g_c), s	0.7	0.0	0.0	1.7	0.0	7.4	0.0	0.0	9.7	4.3	5.8	0.0
Prop In Lane	0.12		0.12	0.97		1.00	1.00		0.19	1.00		0.00
Lane Grp Cap(c), veh/h	309	0	0	322	0	392	786	0	1170	679	1255	0
V/C Ratio(X)	0.05	0.00	0.00	0.12	0.00	0.43	0.00	0.00	0.36	0.36	0.25	0.00
Avail Cap(c_a), veh/h	723	0	0	712	0	816	1104	0	1170	844	1255	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.71	0.71	0.00
Uniform Delay (d), s/veh	33.0	0.0	0.0	33.4	0.0	30.3	6.7	0.0	8.6	5.5	5.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0	0.8	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.7	0.0	3.1	0.0	0.0	3.9	1.3	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	0.0	0.0	33.4	0.0	30.6	6.7	0.0	9.4	5.6	5.7	0.0
LnGrp LOS	C	A	A	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		16			206			417			555	
Approach Delay, s/veh		33.0			31.1			9.4			5.7	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.4	60.3		18.3	5.1	66.6		18.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	25.0		35.0	15.0	25.0		35.0				
Max Q Clear Time (g_c+I1), s	6.3	11.7		2.7	2.0	7.8		9.4				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.5				

Intersection Summary	
HCM 6th Ctrl Delay	11.7
HCM 6th LOS	B



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	6	0	309	171	2
Future Volume (vph)	2	6	0	309	171	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.902				0.998	
Flt Protected	0.987					
Satd. Flow (prot)	1799	0	0	1977	1869	0
Flt Permitted	0.987					
Satd. Flow (perm)	1799	0	0	1977	1869	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	8	8			14
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	3	8	0	435	241	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	11	0	0	435	244	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.2

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	6	0	309	171	2
Future Vol, veh/h	2	6	0	309	171	2
Conflicting Peds, #/hr	14	8	8	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	4	2
Mvmt Flow	3	8	0	435	241	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	706	265	258	0	-	0
Stage 1	257	-	-	-	-	-
Stage 2	449	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	595	833	1307	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	580	816	1290	-	-	-
Mov Cap-2 Maneuver	580	-	-	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	814	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	9.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1290	-	741	-	-
HCM Lane V/C Ratio	-	-	0.015	-	-
HCM Control Delay (s)	0	-	9.9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	311	173	0
Future Volume (vph)	0	0	0	311	173	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	16	11	12
Grade (%)	0%			2%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	2049	0	0	2090	1766	0
Flt Permitted						
Satd. Flow (perm)	2049	0	0	2090	1766	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			216	408	
Travel Time (s)	4.5			4.9	9.3	
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	0	0	0	438	244	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	438	244	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.86	1.04	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

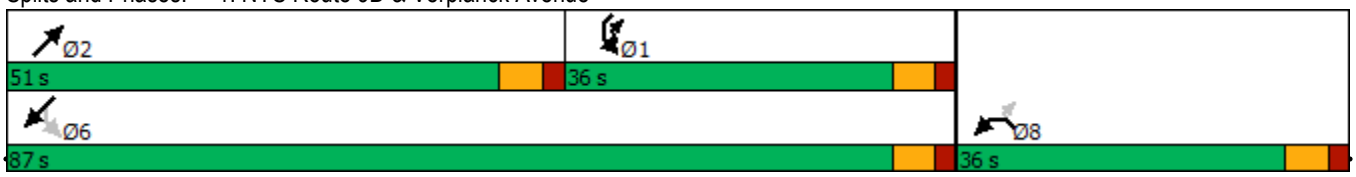
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	43	247	547	35	204	605
Future Volume (vph)	43	247	547	35	204	605
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98		1.00			
Frt		0.850	0.992			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1818	0	1778	1872
Flt Permitted	0.950				0.264	
Satd. Flow (perm)	1688	1544	1818	0	494	1872
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	7			1	1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	47	268	595	38	222	658
Shared Lane Traffic (%)						
Lane Group Flow (vph)	47	268	633	0	222	658
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	1	1	1		1	1
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Call	Call	Call		Call	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.23	0.52	0.72		0.33	0.42
Control Delay	37.3	23.2	23.6		8.3	4.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	37.3	23.2	23.6		8.3	4.9
Queue Length 50th (ft)	21	93	223		22	90
Queue Length 95th (ft)	60	181	#571		73	260
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	790	769	1232		1045	1769
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.06	0.35	0.51		0.21	0.37

Intersection Summary

Area Type: Other
Cycle Length: 123
Actuated Cycle Length: 72.4
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

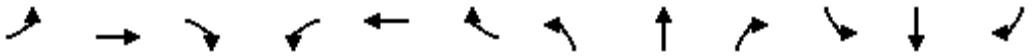
Splits and Phases: 1: NYS Route 9D & Verplanck Avenue



Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	43	247	547	35	204	605	
Future Volume (veh/h)	43	247	547	35	204	605	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1909	
Adj Flow Rate, veh/h	47	268	595	38	222	658	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	276	330	701	45	295	1131	
Arrive On Green	0.17	0.17	0.41	0.41	0.06	0.59	
Sat Flow, veh/h	1641	1460	1690	108	1818	1909	
Grp Volume(v), veh/h	47	268	0	633	222	658	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1798	1818	1909	
Q Serve(g_s), s	1.2	5.8	0.0	15.9	0.6	10.7	
Cycle Q Clear(g_c), s	1.2	5.8	0.0	15.9	0.6	10.7	
Prop In Lane	1.00	1.00		0.06	1.00		
Lane Grp Cap(c), veh/h	276	330	0	746	295	1131	
V/C Ratio(X)	0.17	0.81	0.00	0.85	0.75	0.58	
Avail Cap(c_a), veh/h	983	959	0	1614	1279	3086	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	17.8	18.4	0.0	13.2	22.0	6.4	
Incr Delay (d2), s/veh	0.1	1.9	0.0	2.8	1.5	0.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.4	2.7	0.0	5.7	2.4	3.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	18.0	20.2	0.0	16.0	23.4	6.8	
LnGrp LOS	B	C	A	B	C	A	
Approach Vol, veh/h	315		633			880	
Approach Delay, s/veh	19.9		16.0			11.0	
Approach LOS	B		B			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.9	26.8				35.7	14.4
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	2.6	17.9				12.7	7.8
Green Ext Time (p_c), s	0.4	2.8				3.0	0.7

Intersection Summary		
HCM 6th Ctrl Delay	14.3	
HCM 6th LOS	B	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	1	10	3	5	10	11	543	4	7	619	22
Future Volume (vph)	29	1	10	3	5	10	11	543	4	7	619	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.965			0.922			0.999			0.995	
Flt Protected		0.965			0.992		0.950				0.999	
Satd. Flow (prot)	0	1815	0	0	1761	0	1770	1923	0	0	1961	0
Flt Permitted		0.965			0.992		0.950				0.999	
Satd. Flow (perm)	0	1815	0	0	1761	0	1770	1923	0	0	1961	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		6	2		2	6		2	2		6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	31	1	11	3	5	11	12	578	4	7	659	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	19	0	12	582	0	0	689	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

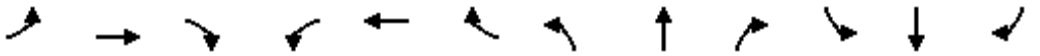
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	1	10	3	5	10	11	543	4	7	619	22
Future Vol, veh/h	29	1	10	3	5	10	11	543	4	7	619	22
Conflicting Peds, #/hr	6	0	6	2	0	2	6	0	2	2	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	1	11	3	5	11	12	578	4	7	659	23

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1309	1299	683	1303	1308	588	688	0	0	584	0	0
Stage 1	691	691	-	606	606	-	-	-	-	-	-	-
Stage 2	618	608	-	697	702	-	-	-	-	-	-	-
Critical Hdwy	6.33	5.72	5.82	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.33	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.33	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	181	215	485	138	159	509	906	-	-	991	-	-
Stage 1	505	520	-	484	487	-	-	-	-	-	-	-
Stage 2	545	556	-	431	440	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	168	208	480	131	154	505	901	-	-	989	-	-
Mov Cap-2 Maneuver	168	208	-	131	154	-	-	-	-	-	-	-
Stage 1	495	512	-	477	480	-	-	-	-	-	-	-
Stage 2	518	548	-	414	433	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27.5	21.4	0.2	0.1
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	901	-	-	202	239	989	-	-
HCM Lane V/C Ratio	0.013	-	-	0.211	0.08	0.008	-	-
HCM Control Delay (s)	9	-	-	27.5	21.4	8.7	0	-
HCM Lane LOS	A	-	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.8	0.3	0	-	-

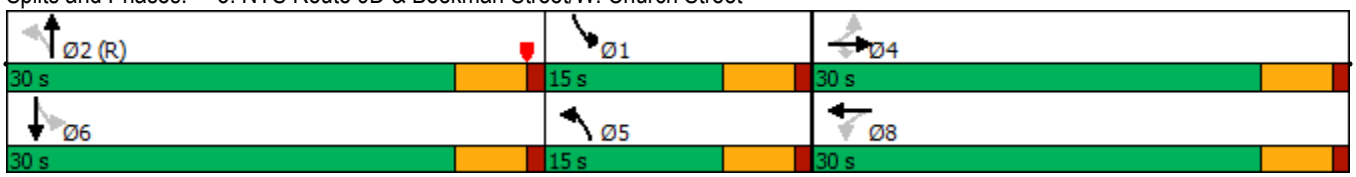


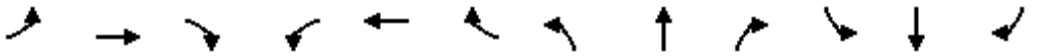
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	5	32	9	3	7	60	411	3	7	445	180
Future Volume (vph)	140	5	32	9	3	7	60	411	3	7	445	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98	0.97		0.98		1.00	1.00		1.00	0.99	
Frt			0.850		0.949			0.999			0.957	
Flt Protected		0.954			0.977		0.950			0.950		
Satd. Flow (prot)	0	1759	1567	0	1787	0	1823	1916	0	1743	1741	0
Flt Permitted		0.719			0.856		0.237			0.425		
Satd. Flow (perm)	0	1304	1524	0	1563	0	454	1916	0	777	1741	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		8						29	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	11		3	3		11	6		9	9		6
Confl. Bikes (#/hr)			3									
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	157	6	36	10	3	8	67	462	3	8	500	202
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	163	36	0	21	0	67	465	0	8	702	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0		10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				11	11							
v/c Ratio		0.65	0.10		0.07		0.18	0.38		0.01	0.69	
Control Delay		38.8	0.5		16.6		8.4	10.7		6.4	18.9	
Queue Delay		0.0	0.0		0.0		0.0	0.3		0.0	0.0	
Total Delay		38.8	0.5		16.6		8.4	11.0		6.4	18.9	
Queue Length 50th (ft)		71	0		5		14	152		1	208	
Queue Length 95th (ft)		111	0		19		m21	176		7	#504	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		434	576		526		522	1238		679	1015	
Starvation Cap Reductn		0	0		0		0	300		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.38	0.06		0.04		0.13	0.50		0.01	0.69	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street

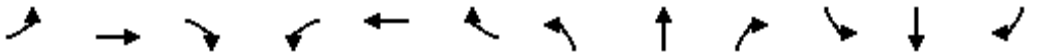




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	5	32	9	3	7	60	411	3	7	445	180
Future Volume (veh/h)	140	5	32	9	3	7	60	411	3	7	445	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.95	0.98		0.97	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2263	2263	2263	2106	2106	2106	1817	1817	1817
Adj Flow Rate, veh/h	157	6	36	10	3	8	67	462	3	8	500	202
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	312	8	307	116	51	59	618	697	5	675	408	165
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.26	0.33	0.33	0.26	0.33	0.33
Sat Flow, veh/h	1056	40	1485	217	248	286	2006	2090	14	1731	1225	495
Grp Volume(v), veh/h	163	0	36	21	0	0	67	0	465	8	0	702
Grp Sat Flow(s),veh/h/ln	1097	0	1485	752	0	0	2006	0	2103	1731	0	1720
Q Serve(g_s), s	0.0	0.0	1.5	0.1	0.0	0.0	0.0	0.0	14.2	0.0	0.0	25.0
Cycle Q Clear(g_c), s	11.5	0.0	1.5	11.6	0.0	0.0	0.0	0.0	14.2	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.48		0.38	1.00		0.01	1.00		0.29
Lane Grp Cap(c), veh/h	321	0	307	226	0	0	618	0	701	675	0	573
V/C Ratio(X)	0.51	0.00	0.12	0.09	0.00	0.00	0.11	0.00	0.66	0.01	0.00	1.22
Avail Cap(c_a), veh/h	495	0	495	452	0	0	618	0	701	675	0	573
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.91	0.00	0.91	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.2	0.0	24.2	24.4	0.0	0.0	20.5	0.0	21.4	13.4	0.0	25.0
Incr Delay (d2), s/veh	0.5	0.0	0.1	0.1	0.0	0.0	0.0	0.0	4.5	0.0	0.0	115.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.5	0.3	0.0	0.0	0.8	0.0	7.4	0.1	0.0	27.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	0.0	24.3	24.5	0.0	0.0	20.6	0.0	25.9	13.4	0.0	140.8
LnGrp LOS	C	A	C	C	A	A	C	A	C	B	A	F
Approach Vol, veh/h		199			21			532			710	
Approach Delay, s/veh		27.9			24.5			25.2			139.4	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.5	30.0		20.5	24.5	30.0		20.5				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	2.0	16.2		13.5	2.0	27.0		13.6				
Green Ext Time (p_c), s	0.0	0.7		0.3	0.0	0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		81.0	
HCM 6th LOS		F	

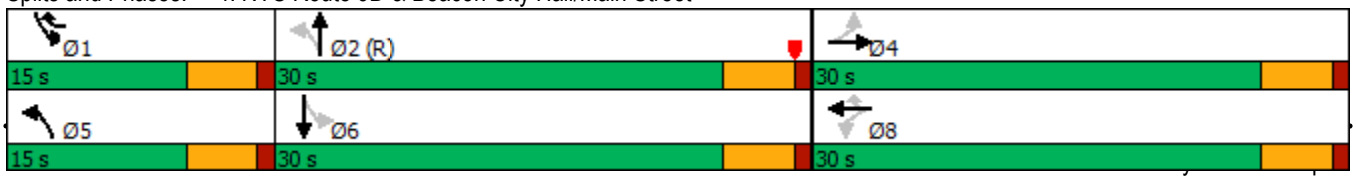


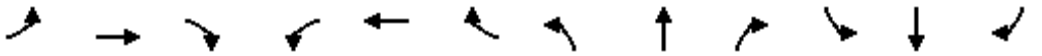
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	1	1	23	0	185	1	288	37	233	250	2
Future Volume (vph)	1	1	1	23	0	185	1	288	37	233	250	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.97		0.99			1.00	
Frt		0.955				0.850		0.983			0.999	
Flt Protected		0.984			0.950		0.950			0.950		
Satd. Flow (prot)	0	1751	0	0	1877	1663	1832	1832	0	1760	1851	0
Flt Permitted		0.890			0.756		0.591			0.451		
Satd. Flow (perm)	0	1584	0	0	1494	1614	1140	1832	0	836	1851	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		1									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			14			6			48			11
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	2%	5%	1%	1%	0%
Adj. Flow (vph)	1	1	1	26	0	208	1	327	42	253	272	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	0	26	208	1	369	0	253	274	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0	15.0	15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	20.0%	20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0	10.0	10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	14	14		6	6			48				
v/c Ratio		0.02			0.14	0.58	0.00	0.32		0.31	0.18	
Control Delay		21.0			27.5	29.2	6.0	11.3		4.2	4.1	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		21.0			27.5	29.2	6.0	11.3		4.2	4.1	
Queue Length 50th (ft)		1			12	92	0	55		0	0	
Queue Length 95th (ft)		5			25	83	2	220		m57	m65	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		528			498	377	952	1138		829	1561	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.01			0.05	0.55	0.00	0.32		0.31	0.18	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	1	1	23	0	185	1	288	37	233	250	2
Future Volume (veh/h)	1	1	1	23	0	185	1	288	37	233	250	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.96		0.98	0.99		0.96	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2200	2018	1988	1943	1832	1832	1847
Adj Flow Rate, veh/h	1	1	1	26	0	208	1	327	42	253	272	2
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	1	0	2	5	1	1	0
Cap, veh/h	120	113	85	357	0	455	754	949	122	681	1156	9
Arrive On Green	0.16	0.16	0.16	0.16	0.00	0.16	0.00	0.55	0.55	0.08	0.64	0.64
Sat Flow, veh/h	344	696	520	1607	0	1830	1922	1716	220	1745	1816	13
Grp Volume(v), veh/h	3	0	0	26	0	208	1	0	369	253	0	274
Grp Sat Flow(s),veh/h/ln	1561	0	0	1608	0	1830	1922	0	1936	1745	0	1830
Q Serve(g_s), s	0.0	0.0	0.0	0.9	0.0	7.2	0.0	0.0	7.9	4.3	0.0	4.8
Cycle Q Clear(g_c), s	0.1	0.0	0.0	1.0	0.0	7.2	0.0	0.0	7.9	4.3	0.0	4.8
Prop In Lane	0.33		0.33	1.00		1.00	1.00		0.11	1.00		0.01
Lane Grp Cap(c), veh/h	318	0	0	357	0	455	754	0	1071	681	0	1165
V/C Ratio(X)	0.01	0.00	0.00	0.07	0.00	0.46	0.00	0.00	0.34	0.37	0.00	0.24
Avail Cap(c_a), veh/h	570	0	0	631	0	767	1007	0	1071	767	0	1165
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.70	0.00	0.70
Uniform Delay (d), s/veh	26.3	0.0	0.0	26.7	0.0	24.0	7.5	0.0	9.3	5.8	0.0	5.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.9	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.4	0.0	3.0	0.0	0.0	3.2	1.2	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	0.0	0.0	26.7	0.0	24.3	7.5	0.0	10.1	5.9	0.0	6.2
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		3			234			370			527	
Approach Delay, s/veh		26.3			24.5			10.1			6.0	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.3	46.5		17.2	5.1	52.7		17.2				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	6.3	9.9		2.1	2.0	6.8		9.2				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		11.2	
HCM 6th LOS		B	



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	1	1	0	176	228	0
Future Volume (vph)	1	1	0	176	228	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976					
Satd. Flow (prot)	1838	0	0	1977	1909	0
Flt Permitted	0.976					
Satd. Flow (perm)	1838	0	0	1977	1909	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	17	17			14
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	1	1	0	205	265	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	0	205	265	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	1	1	0	176	228	0
Future Vol, veh/h	1	1	0	176	228	0
Conflicting Peds, #/hr	14	17	17	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	0	205	265	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	501	299	282	0	-	0
Stage 1	282	-	-	-	-	-
Stage 2	219	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	700	805	1280	-	-	-
Stage 1	896	-	-	-	-	-
Stage 2	923	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	679	780	1260	-	-	-
Mov Cap-2 Maneuver	679	-	-	-	-	-
Stage 1	883	-	-	-	-	-
Stage 2	909	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1260	-	726	-	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s)	0	-	10	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

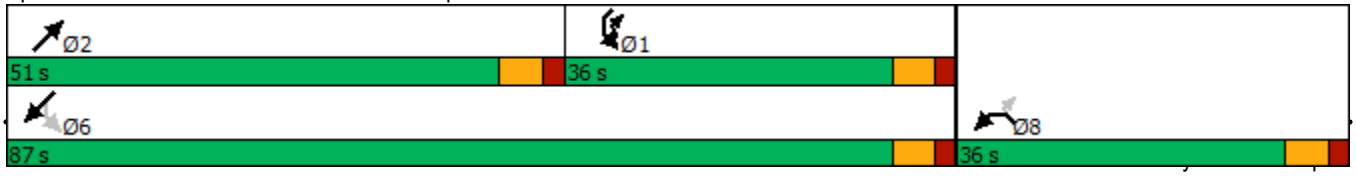


Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	65	293	576	51	291	711
Future Volume (vph)	65	293	576	51	291	711
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		1.00			
Frt		0.850	0.989			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1811	0	1778	1854
Flt Permitted	0.950				0.238	
Satd. Flow (perm)	1715	1544	1811	0	446	1854
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	2			1	1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%
Adj. Flow (vph)	68	308	606	54	306	748
Shared Lane Traffic (%)						
Lane Group Flow (vph)	68	308	660	0	306	748
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.36	0.55	0.75		0.48	0.50
Control Delay	44.1	24.6	27.6		13.6	6.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	44.1	24.6	27.6		13.6	6.1
Queue Length 50th (ft)	36	131	278		36	123
Queue Length 95th (ft)	83	208	#657		100	320
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	637	659	1004		888	1674
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.11	0.47	0.66		0.34	0.45

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 85.5	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue

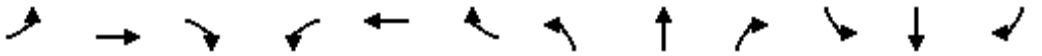




Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	65	293	576	51	291	711	
Future Volume (veh/h)	65	293	576	51	291	711	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1894	
Adj Flow Rate, veh/h	68	308	606	54	306	748	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	3	
Cap, veh/h	228	367	699	62	375	1222	
Arrive On Green	0.14	0.14	0.42	0.42	0.11	0.64	
Sat Flow, veh/h	1641	1460	1644	147	1818	1894	
Grp Volume(v), veh/h	68	308	0	660	306	748	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1791	1818	1894	
Q Serve(g_s), s	2.1	4.9	0.0	18.7	3.7	12.9	
Cycle Q Clear(g_c), s	2.1	4.9	0.0	18.7	3.7	12.9	
Prop In Lane	1.00	1.00		0.08	1.00		
Lane Grp Cap(c), veh/h	228	367	0	761	375	1222	
V/C Ratio(X)	0.30	0.84	0.00	0.87	0.82	0.61	
Avail Cap(c_a), veh/h	886	952	0	1450	1153	2761	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	21.5	19.7	0.0	14.6	22.3	5.8	
Incr Delay (d2), s/veh	0.3	2.0	0.0	3.2	1.7	0.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.8	3.6	0.0	6.9	3.6	3.4	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.7	21.8	0.0	17.7	24.0	6.3	
LnGrp LOS	C	C	A	B	C	A	
Approach Vol, veh/h	376		660			1054	
Approach Delay, s/veh	21.8		17.7			11.4	
Approach LOS	C		B			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.2	29.6				41.8	13.7
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	5.7	20.7				14.9	6.9
Green Ext Time (p_c), s	0.6	2.9				3.6	0.9

Intersection Summary		
HCM 6th Ctrl Delay	15.3	
HCM 6th LOS	B	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	4	38	9	0	9	20	542	6	2	727	54
Future Volume (vph)	76	4	38	9	0	9	20	542	6	2	727	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.956			0.932			0.998			0.991	
Flt Protected		0.969			0.976		0.950					
Satd. Flow (prot)	0	1807	0	0	1661	0	1770	1849	0	0	1909	0
Flt Permitted		0.969			0.976		0.950					
Satd. Flow (perm)	0	1807	0	0	1661	0	1770	1849	0	0	1909	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		8	14		12	8		14	12		6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	4%	13%	2%	2%	2%	6%	2%	2%	4%	11%
Adj. Flow (vph)	80	4	40	9	0	9	21	571	6	2	765	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	124	0	0	18	0	21	577	0	0	824	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.2

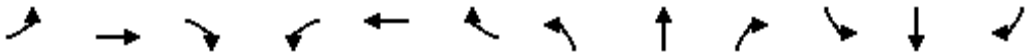
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	76	4	38	9	0	9	20	542	6	2	727	54
Future Vol, veh/h	76	4	38	9	0	9	20	542	6	2	727	54
Conflicting Peds, #/hr	6	0	8	14	0	12	8	0	14	12	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	4	13	2	2	2	6	2	2	4	11
Mvmt Flow	80	4	40	9	0	9	21	571	6	2	765	57

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1439	1439	816	1464	1464	600	830	0	0	591	0	0
Stage 1	806	806	-	630	630	-	-	-	-	-	-	-
Stage 2	633	633	-	834	834	-	-	-	-	-	-	-
Critical Hdwy	6.32	5.72	5.84	7.23	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.32	4.72	-	6.23	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.32	4.72	-	6.23	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.336	3.617	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	152	183	409	100	128	501	802	-	-	985	-	-
Stage 1	449	472	-	452	475	-	-	-	-	-	-	-
Stage 2	538	545	-	347	383	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	143	174	401	84	122	489	796	-	-	973	-	-
Mov Cap-2 Maneuver	143	174	-	84	122	-	-	-	-	-	-	-
Stage 1	434	467	-	434	456	-	-	-	-	-	-	-
Stage 2	508	524	-	304	379	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	59.1	34	0.3	0
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	796	-	-	182	143	973	-	-
HCM Lane V/C Ratio	0.026	-	-	0.682	0.132	0.002	-	-
HCM Control Delay (s)	9.6	-	-	59.1	34	8.7	0	-
HCM Lane LOS	A	-	-	F	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	4.1	0.4	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	5	45	9	10	17	22	449	3	3	520	251
Future Volume (vph)	110	5	45	9	10	17	22	449	3	3	520	251
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.98		0.99		1.00	1.00		0.99	0.99	
Frt			0.850		0.938			0.999			0.951	
Flt Protected		0.954			0.987		0.950			0.950		
Satd. Flow (prot)	0	1711	1494	0	1792	0	1754	1844	0	1743	1693	0
Flt Permitted		0.706			0.911		0.205			0.431		
Satd. Flow (perm)	0	1265	1460	0	1653	0	378	1844	0	786	1693	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		18						35	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	1		2	2		1	7		14	14		7
Confl. Bikes (#/hr)						1			1			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	25%	7%	2%	2%	2%	6%	6%	2%	2%	5%	2%
Adj. Flow (vph)	118	5	48	10	11	18	24	483	3	3	559	270
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	48	0	39	0	24	486	0	3	829	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

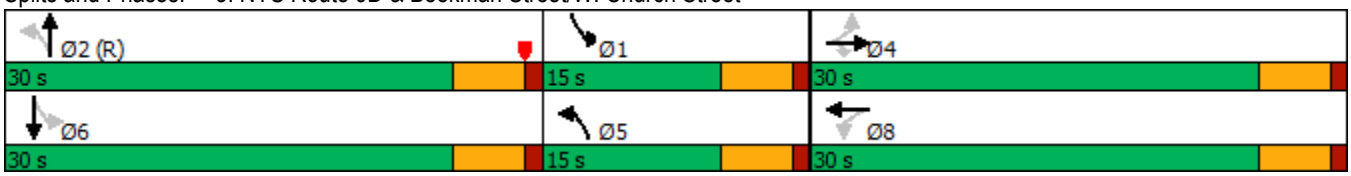


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0		10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				2	2							
v/c Ratio		0.57	0.14		0.13		0.07	0.37		0.00	0.70	
Control Delay		36.9	1.5		15.7		3.9	7.7		6.0	17.2	
Queue Delay		0.0	0.0		0.0		0.0	0.1		0.0	0.0	
Total Delay		36.9	1.5		15.7		3.9	7.8		6.0	17.2	
Queue Length 50th (ft)		54	0		8		1	70		0	168	
Queue Length 95th (ft)		87	4		27		m5	169		4	#646	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		421	554		563		484	1316		743	1179	
Starvation Cap Reductn		0	0		0		0	161		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.29	0.09		0.07		0.05	0.42		0.00	0.70	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	5	45	9	10	17	22	449	3	3	520	251
Future Volume (veh/h)	110	5	45	9	10	17	22	449	3	3	520	251
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1817	1506	1773	2263	2263	2263	2046	2046	2106	1817	1773	1817
Adj Flow Rate, veh/h	118	5	48	10	11	18	24	483	3	3	559	270
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	25	7	2	2	2	6	6	2	2	5	2
Cap, veh/h	237	8	383	75	97	95	507	677	4	571	371	179
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.21	0.33	0.33	0.21	0.33	0.33
Sat Flow, veh/h	559	30	1496	56	379	373	1948	2030	13	1731	1112	537
Grp Volume(v), veh/h	123	0	48	39	0	0	24	0	486	3	0	829
Grp Sat Flow(s),veh/h/ln	589	0	1496	808	0	0	1948	0	2043	1731	0	1649
Q Serve(g_s), s	0.0	0.0	1.9	0.2	0.0	0.0	0.0	0.0	15.6	0.0	0.0	25.0
Cycle Q Clear(g_c), s	16.9	0.0	1.9	17.2	0.0	0.0	0.0	0.0	15.6	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.26		0.46	1.00		0.01	1.00		0.33
Lane Grp Cap(c), veh/h	245	0	383	267	0	0	507	0	681	571	0	550
V/C Ratio(X)	0.50	0.00	0.13	0.15	0.00	0.00	0.05	0.00	0.71	0.01	0.00	1.51
Avail Cap(c_a), veh/h	332	0	499	414	0	0	507	0	681	571	0	550
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.91	0.00	0.91	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.0	0.0	21.5	22.1	0.0	0.0	23.3	0.0	21.9	16.6	0.0	25.0
Incr Delay (d2), s/veh	0.6	0.0	0.1	0.1	0.0	0.0	0.0	0.0	5.7	0.0	0.0	238.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.6	0.5	0.0	0.0	0.3	0.0	8.1	0.0	0.0	45.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	0.0	21.5	22.2	0.0	0.0	23.4	0.0	27.6	16.6	0.0	263.1
LnGrp LOS	C	A	C	C	A	A	C	A	C	B	A	F
Approach Vol, veh/h		171			39			510			832	
Approach Delay, s/veh		25.9			22.2			27.4			262.3	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.9	30.0		24.1	20.9	30.0		24.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	2.0	17.6		18.9	2.0	27.0		19.2				
Green Ext Time (p_c), s	0.0	0.7		0.2	0.0	0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		153.0	
HCM 6th LOS		F	

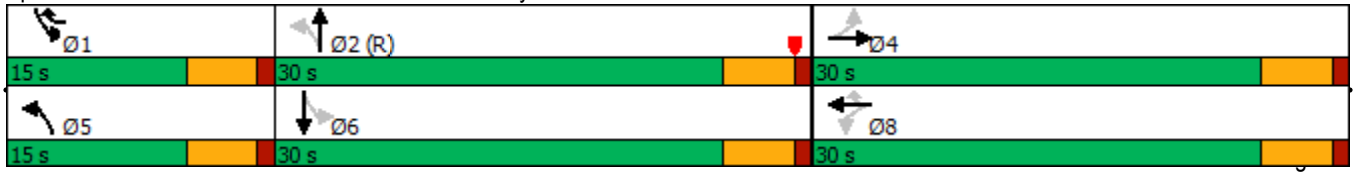
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	5	3	21	7	117	5	354	38	254	324	6
Future Volume (vph)	4	5	3	21	7	117	5	354	38	254	324	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.96		0.99			1.00	
Frt		0.966				0.850		0.985			0.997	
Flt Protected		0.983			0.964		0.950			0.950		
Satd. Flow (prot)	0	1779	0	0	1905	1647	1832	1847	0	1743	1846	0
Flt Permitted		0.882			0.769		0.539			0.358		
Satd. Flow (perm)	0	1596	0	0	1520	1574	1039	1847	0	657	1846	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		5									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			9			15			21			12
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	2%	5%	2%	1%	0%
Adj. Flow (vph)	7	8	5	23	8	129	6	448	48	289	368	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	31	129	6	496	0	289	375	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0	15.0	15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	20.0%	20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0	10.0	10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	15	15		15	15			21				
v/c Ratio		0.10			0.17	0.35	0.01	0.45		0.43	0.25	
Control Delay		21.7			28.0	20.7	6.2	14.9		7.9	4.7	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.2	
Total Delay		21.7			28.0	20.7	6.2	14.9		7.9	4.8	
Queue Length 50th (ft)		7			14	45	1	123		19	24	
Queue Length 95th (ft)		12			29	54	5	267		m96	91	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		535			506	399	863	1101		688	1476	
Starvation Cap Reductn		0			0	0	0	0		0	410	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.04			0.06	0.32	0.01	0.45		0.42	0.35	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 65
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	5	3	21	7	117	5	354	38	254	324	6
Future Volume (veh/h)	4	5	3	21	7	117	5	354	38	254	324	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.95	0.97		0.95	0.99		0.96	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2185	2018	1988	1943	1817	1832	1847
Adj Flow Rate, veh/h	7	8	5	23	8	129	6	448	48	289	368	7
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	2	0	2	5	2	1	0
Cap, veh/h	115	116	55	250	78	410	718	1003	107	622	1176	22
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.00	0.57	0.57	0.09	0.66	0.66
Sat Flow, veh/h	359	837	399	1199	565	1751	1922	1757	188	1731	1792	34
Grp Volume(v), veh/h	20	0	0	31	0	129	6	0	496	289	0	375
Grp Sat Flow(s),veh/h/ln	1594	0	0	1764	0	1751	1922	0	1945	1731	0	1826
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	4.6	0.1	0.0	11.0	4.7	0.0	6.7
Cycle Q Clear(g_c), s	0.7	0.0	0.0	1.0	0.0	4.6	0.1	0.0	11.0	4.7	0.0	6.7
Prop In Lane	0.35		0.25	0.74		1.00	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	286	0	0	328	0	410	718	0	1111	622	0	1199
V/C Ratio(X)	0.07	0.00	0.00	0.09	0.00	0.31	0.01	0.00	0.45	0.46	0.00	0.31
Avail Cap(c_a), veh/h	579	0	0	665	0	751	966	0	1111	697	0	1199
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.69	0.00	0.69
Uniform Delay (d), s/veh	28.1	0.0	0.0	28.2	0.0	24.1	6.8	0.0	9.3	6.1	0.0	5.6
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	1.3	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.5	0.0	1.8	0.0	0.0	4.4	1.3	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.2	0.0	0.0	28.3	0.0	24.2	6.8	0.0	10.6	6.2	0.0	6.0
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		20			160			502			664	
Approach Delay, s/veh		28.2			25.0			10.5			6.1	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	47.8		15.4	5.4	54.2		15.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	6.7	13.0		2.7	2.1	8.7		6.6				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		10.3	
HCM 6th LOS		B	



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	2	2	158	282	0
Future Volume (vph)	2	2	2	158	282	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976			0.999		
Satd. Flow (prot)	1838	0	0	1938	1909	0
Flt Permitted	0.976			0.999		
Satd. Flow (perm)	1838	0	0	1938	1909	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	16	16			14
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%
Adj. Flow (vph)	3	3	3	200	357	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	203	357	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	2	2	158	282	0
Future Vol, veh/h	2	2	2	158	282	0
Conflicting Peds, #/hr	14	16	16	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	4	2	2
Mvmt Flow	3	3	3	200	357	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	593	389	373	0	-	0
Stage 1	373	-	-	-	-	-
Stage 2	220	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	651	735	1185	-	-	-
Stage 1	857	-	-	-	-	-
Stage 2	923	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	631	713	1168	-	-	-
Mov Cap-2 Maneuver	631	-	-	-	-	-
Stage 1	842	-	-	-	-	-
Stage 2	910	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.4	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1168	-	669	-	-
HCM Lane V/C Ratio	0.002	-	0.008	-	-
HCM Control Delay (s)	8.1	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

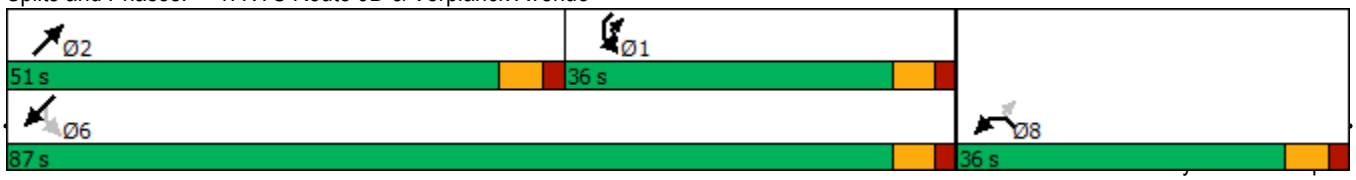


Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	66	345	709	56	233	694
Future Volume (vph)	66	345	709	56	233	694
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		1.00			
Frt		0.850	0.990			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1813	0	1778	1854
Flt Permitted	0.950				0.131	
Satd. Flow (perm)	1720	1544	1813	0	245	1854
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	1			3	3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%
Adj. Flow (vph)	69	363	746	59	245	731
Shared Lane Traffic (%)						
Lane Group Flow (vph)	69	363	805	0	245	731
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	3		3			
v/c Ratio	0.39	0.63	0.90		0.44	0.49
Control Delay	47.4	27.7	39.8		18.5	5.7
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	47.4	27.7	39.8		18.5	5.7
Queue Length 50th (ft)	40	168	428		35	120
Queue Length 95th (ft)	86	251	#909		126	305
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	567	637	894		715	1601
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.12	0.57	0.90		0.34	0.46

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 93.2	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue

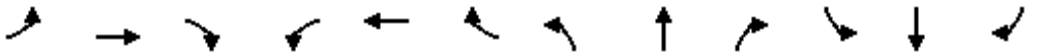




Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	66	345	709	56	233	694	
Future Volume (veh/h)	66	345	709	56	233	694	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1894	
Adj Flow Rate, veh/h	69	363	746	59	245	731	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	3	
Cap, veh/h	300	406	806	64	295	1249	
Arrive On Green	0.18	0.18	0.48	0.48	0.10	0.66	
Sat Flow, veh/h	1641	1460	1662	131	1818	1894	
Grp Volume(v), veh/h	69	363	0	805	245	731	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1793	1818	1894	
Q Serve(g_s), s	2.7	10.9	0.0	31.8	4.8	16.2	
Cycle Q Clear(g_c), s	2.7	10.9	0.0	31.8	4.8	16.2	
Prop In Lane	1.00	1.00		0.07	1.00		
Lane Grp Cap(c), veh/h	300	406	0	870	295	1249	
V/C Ratio(X)	0.23	0.89	0.00	0.93	0.83	0.59	
Avail Cap(c_a), veh/h	649	717	0	1063	841	2022	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	26.5	26.3	0.0	18.3	31.9	7.2	
Incr Delay (d2), s/veh	0.1	3.2	0.0	11.8	2.3	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.0	3.4	0.0	14.5	4.4	5.3	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	26.6	29.6	0.0	30.1	34.2	7.6	
LnGrp LOS	C	C	A	C	C	A	
Approach Vol, veh/h	432		805			976	
Approach Delay, s/veh	29.1		30.1			14.3	
Approach LOS	C		C			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	13.2	42.8				56.0	19.9
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	6.8	33.8				18.2	12.9
Green Ext Time (p_c), s	0.5	3.0				3.5	1.0

Intersection Summary			
HCM 6th Ctrl Delay		22.9	
HCM 6th LOS		C	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	6	19	7	4	5	27	705	6	6	654	81
Future Volume (vph)	53	6	19	7	4	5	27	705	6	6	654	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.967			0.960			0.999			0.985	
Flt Protected		0.967			0.977		0.950					
Satd. Flow (prot)	0	1836	0	0	1693	0	1770	1923	0	0	1927	0
Flt Permitted		0.967			0.977		0.950					
Satd. Flow (perm)	0	1836	0	0	1693	0	1770	1923	0	0	1927	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	4		4	2		2	4		2	2		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	25%	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	58	7	21	8	4	5	29	766	7	7	711	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	17	0	29	773	0	0	806	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4

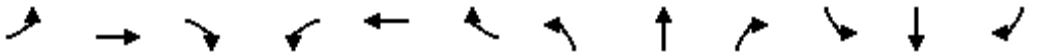
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	53	6	19	7	4	5	27	705	6	6	654	81
Future Vol, veh/h	53	6	19	7	4	5	27	705	6	6	654	81
Conflicting Peds, #/hr	4	0	4	2	0	2	4	0	2	2	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	25	2	2	2	2	3	2
Mvmt Flow	58	7	21	8	4	5	29	766	7	7	711	88

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1609	1606	763	1617	1647	776	803	0	0	775	0	0
Stage 1	773	773	-	830	830	-	-	-	-	-	-	-
Stage 2	836	833	-	787	817	-	-	-	-	-	-	-
Critical Hdwy	6.32	5.72	5.82	7.12	6.52	6.45	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.32	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.32	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.525	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	120	150	440	83	99	363	821	-	-	841	-	-
Stage 1	465	485	-	364	385	-	-	-	-	-	-	-
Stage 2	435	462	-	385	390	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	109	142	437	73	94	361	818	-	-	839	-	-
Mov Cap-2 Maneuver	109	142	-	73	94	-	-	-	-	-	-	-
Stage 1	447	476	-	351	371	-	-	-	-	-	-	-
Stage 2	407	445	-	355	383	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	67.6	46	0.3	0.1
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	818	-	-	136	105	839	-	-
HCM Lane V/C Ratio	0.036	-	-	0.623	0.166	0.008	-	-
HCM Control Delay (s)	9.6	-	-	67.6	46	9.3	0	-
HCM Lane LOS	A	-	-	F	E	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	3.3	0.6	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	292	13	35	2	8	16	47	430	13	5	531	144
Future Volume (vph)	292	13	35	2	8	16	47	430	13	5	531	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.98		1.00	1.00		1.00	0.99	
Frt			0.850		0.918			0.996			0.968	
Flt Protected		0.954			0.996		0.950			0.950		
Satd. Flow (prot)	0	1759	1567	0	1761	0	1690	1892	0	1743	1750	0
Flt Permitted		0.715			0.981		0.161			0.367		
Satd. Flow (perm)	0	1314	1567	0	1735	0	286	1892	0	673	1750	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85		17			2			15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	2					2	6		2	2		6
Confl. Bikes (#/hr)						1			1			1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	10%	3%	2%	2%	3%	2%
Adj. Flow (vph)	317	14	38	2	9	17	51	467	14	5	577	157
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	331	38	0	28	0	51	481	0	5	734	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

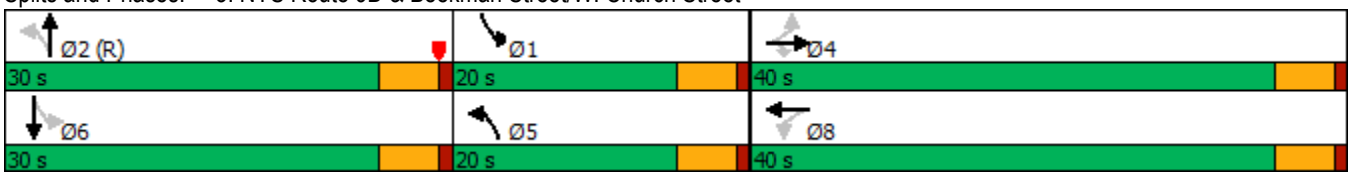


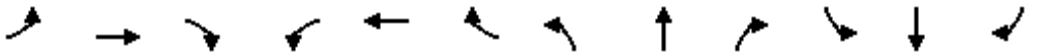
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0		20.0	30.0		20.0	30.0	
Total Split (%)	44.4%	44.4%	44.4%	44.4%	44.4%		22.2%	33.3%		22.2%	33.3%	
Maximum Green (s)	35.0	35.0	35.0	35.0	35.0		15.0	25.0		15.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				2	2							
v/c Ratio		0.83	0.07		0.05		0.22	0.45		0.01	0.79	
Control Delay		46.4	0.5		11.2		11.6	14.2		11.2	29.2	
Queue Delay		0.0	0.0		0.0		0.0	0.4		0.0	0.0	
Total Delay		46.4	0.5		11.2		11.6	14.6		11.2	29.2	
Queue Length 50th (ft)		173	0		4		10	139		1	348	
Queue Length 95th (ft)		242	2		20		m19	203		7	#696	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		514	665		689		437	1066		643	924	
Starvation Cap Reductn		0	0		0		0	200		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.64	0.06		0.04		0.12	0.56		0.01	0.79	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street

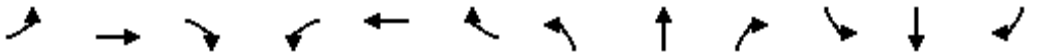




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	292	13	35	2	8	16	47	430	13	5	531	144
Future Volume (veh/h)	292	13	35	2	8	16	47	430	13	5	531	144
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2263	2263	2263	1986	2091	2106	1817	1803	1817
Adj Flow Rate, veh/h	317	14	38	2	9	17	51	467	14	5	577	157
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	10	3	2	2	3	2
Cap, veh/h	178	4	607	43	166	256	395	560	17	422	376	102
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.17	0.28	0.28	0.17	0.28	0.28
Sat Flow, veh/h	255	11	1561	0	426	658	1891	2017	60	1731	1354	368
Grp Volume(v), veh/h	331	0	38	28	0	0	51	0	481	5	0	734
Grp Sat Flow(s),veh/h/ln	267	0	1561	1084	0	0	1891	0	2078	1731	0	1722
Q Serve(g_s), s	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	19.6	0.0	0.0	25.0
Cycle Q Clear(g_c), s	35.0	0.0	1.4	35.0	0.0	0.0	0.0	0.0	19.6	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.07		0.61	1.00		0.03	1.00		0.21
Lane Grp Cap(c), veh/h	182	0	607	465	0	0	395	0	577	422	0	478
V/C Ratio(X)	1.82	0.00	0.06	0.06	0.00	0.00	0.13	0.00	0.83	0.01	0.00	1.53
Avail Cap(c_a), veh/h	182	0	607	465	0	0	395	0	577	422	0	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.88	0.00	0.88	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	0.0	17.2	18.5	0.0	0.0	31.3	0.0	30.5	27.1	0.0	32.5
Incr Delay (d2), s/veh	389.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9	0.0	0.0	250.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.7	0.0	0.5	0.4	0.0	0.0	0.9	0.0	11.4	0.1	0.0	43.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	424.3	0.0	17.2	18.5	0.0	0.0	31.3	0.0	42.4	27.1	0.0	283.4
LnGrp LOS	F	A	B	B	A	A	C	A	D	C	A	F
Approach Vol, veh/h		369			28			532			739	
Approach Delay, s/veh		382.4			18.5			41.3			281.7	
Approach LOS		F			B			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	30.0		40.0	20.0	30.0		40.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	25.0		35.0	15.0	25.0		35.0				
Max Q Clear Time (g_c+I1), s	2.0	21.6		37.0	2.0	27.0		37.0				
Green Ext Time (p_c), s	0.0	0.4		0.0	0.0	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			222.9									
HCM 6th LOS			F									



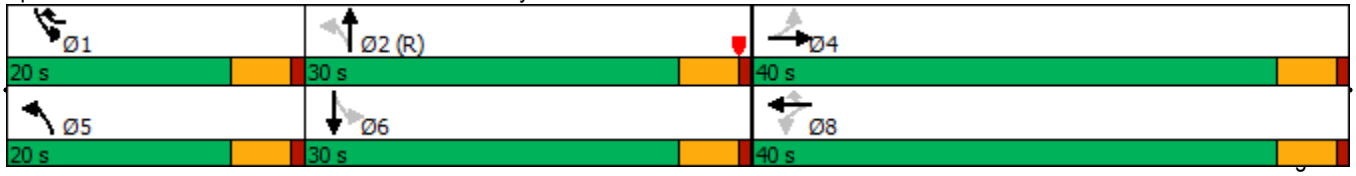
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	8	2	50	2	174	2	315	80	246	332	0
Future Volume (vph)	2	8	2	50	2	174	2	315	80	246	332	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.95		0.99				
Frt		0.979				0.850		0.970				
Flt Protected		0.992			0.954		0.950			0.950		
Satd. Flow (prot)	0	1825	0	0	1885	1647	1832	1800	0	1743	1853	0
Flt Permitted		0.961			0.720		0.538			0.338		
Satd. Flow (perm)	0	1768	0	0	1423	1566	1038	1800	0	620	1853	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		3										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			9			15			21			12
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	2%	5%	2%	1%	0%
Adj. Flow (vph)	3	13	3	55	2	191	3	399	101	280	377	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	0	57	191	3	500	0	280	377	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

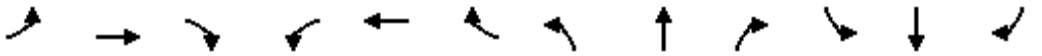
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	40.0	40.0		40.0	40.0	20.0	20.0	30.0		20.0	30.0	
Total Split (%)	44.4%	44.4%		44.4%	44.4%	22.2%	22.2%	33.3%		22.2%	33.3%	
Maximum Green (s)	35.0	35.0		35.0	35.0	15.0	15.0	25.0		15.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	9	9		15	15			21				
v/c Ratio		0.07			0.28	0.41	0.00	0.50		0.43	0.27	
Control Delay		25.3			34.0	22.4	8.0	19.7		11.4	5.6	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.3	
Total Delay		25.3			34.0	22.4	8.0	19.7		11.4	5.9	
Queue Length 50th (ft)		9			31	85	0	150		18	25	
Queue Length 95th (ft)		15			57	92	3	309		m107	m88	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		689			553	510	874	995		679	1402	
Starvation Cap Reductn		0			0	0	0	0		0	534	
Spillback Cap Reductn		0			0	0	0	12		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.03			0.10	0.37	0.00	0.51		0.41	0.43	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 65
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	8	2	50	2	174	2	315	80	246	332	0
Future Volume (veh/h)	2	8	2	50	2	174	2	315	80	246	332	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.95	0.97		0.95	0.99		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2185	2018	1988	1943	1817	1832	1847
Adj Flow Rate, veh/h	3	13	3	55	2	191	3	399	101	280	377	0
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	2	0	2	5	2	1	0
Cap, veh/h	66	211	43	326	11	427	721	903	228	614	1236	0
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.00	0.60	0.60	0.08	0.67	0.00
Sat Flow, veh/h	123	1350	276	1581	69	1763	1922	1517	384	1731	1832	0
Grp Volume(v), veh/h	19	0	0	57	0	191	3	0	500	280	377	0
Grp Sat Flow(s),veh/h/ln	1750	0	0	1650	0	1763	1922	0	1901	1731	1832	0
Q Serve(g_s), s	0.0	0.0	0.0	1.7	0.0	8.3	0.1	0.0	13.0	5.2	7.6	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	2.5	0.0	8.3	0.1	0.0	13.0	5.2	7.6	0.0
Prop In Lane	0.16		0.16	0.96		1.00	1.00		0.20	1.00		0.00
Lane Grp Cap(c), veh/h	320	0	0	337	0	427	721	0	1131	614	1236	0
V/C Ratio(X)	0.06	0.00	0.00	0.17	0.00	0.45	0.00	0.00	0.44	0.46	0.31	0.00
Avail Cap(c_a), veh/h	707	0	0	714	0	837	1037	0	1131	760	1236	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.57	0.57	0.00
Uniform Delay (d), s/veh	32.4	0.0	0.0	33.0	0.0	29.3	7.3	0.0	10.0	6.7	6.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0	1.3	0.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	1.1	0.0	3.5	0.0	0.0	5.3	1.6	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.4	0.0	0.0	33.1	0.0	29.6	7.3	0.0	11.3	6.8	6.4	0.0
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		19			248			503			657	
Approach Delay, s/veh		32.4			30.4			11.2			6.6	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.4	58.6		19.1	5.2	65.7		19.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	25.0		35.0	15.0	25.0		35.0				
Max Q Clear Time (g_c+I1), s	7.2	15.0		2.8	2.1	9.6		10.3				
Green Ext Time (p_c), s	0.2	0.3		0.0	0.0	0.2		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		12.7	
HCM 6th LOS		B	

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	3	7	0	337	196	3
Future Volume (vph)	3	7	0	337	196	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.904				0.998	
Flt Protected	0.986					
Satd. Flow (prot)	1801	0	0	1977	1869	0
Flt Permitted	0.986					
Satd. Flow (perm)	1801	0	0	1977	1869	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	8	8			14
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	4	10	0	475	276	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	0	0	475	280	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.2

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	3	7	0	337	196	3
Future Vol, veh/h	3	7	0	337	196	3
Conflicting Peds, #/hr	14	8	8	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	4	2
Mvmt Flow	4	10	0	475	276	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	781	300	294	0	-	0
Stage 1	292	-	-	-	-	-
Stage 2	489	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	561	804	1268	-	-	-
Stage 1	891	-	-	-	-	-
Stage 2	809	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	546	788	1252	-	-	-
Mov Cap-2 Maneuver	546	-	-	-	-	-
Stage 1	879	-	-	-	-	-
Stage 2	798	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.3	0	0
HCM LOS	B		

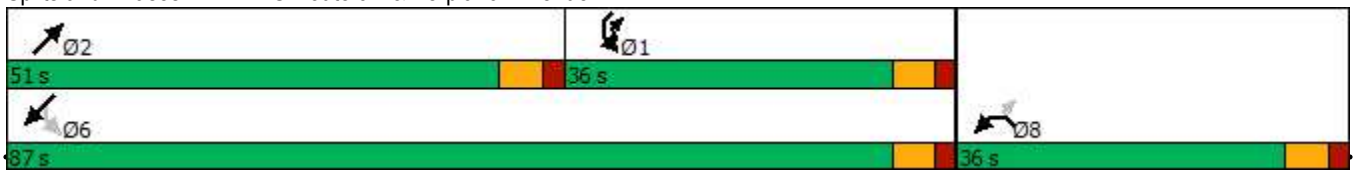
Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1252	-	696	-	-
HCM Lane V/C Ratio	-	-	0.02	-	-
HCM Control Delay (s)	0	-	10.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	50	287	628	41	217	726
Future Volume (vph)	50	287	628	41	217	726
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98		1.00			
Frt		0.850	0.992			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1818	0	1778	1872
Flt Permitted	0.950				0.205	
Satd. Flow (perm)	1688	1544	1818	0	384	1872
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	7			1	1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	312	683	45	236	789
Shared Lane Traffic (%)						
Lane Group Flow (vph)	54	312	728	0	236	789
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.32	0.58	0.78		0.39	0.52
Control Delay	44.1	26.9	28.7		11.6	6.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	44.1	26.9	28.7		11.6	6.1
Queue Length 50th (ft)	29	139	325		25	127
Queue Length 95th (ft)	69	211	#754		77	347
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	589	614	931		818	1667
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.09	0.51	0.78		0.29	0.47

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 89.7	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

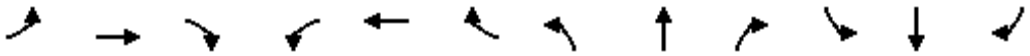
Splits and Phases: 1: NYS Route 9D & Verplanck Avenue



Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	50	287	628	41	217	726	
Future Volume (veh/h)	50	287	628	41	217	726	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1909	
Adj Flow Rate, veh/h	54	312	683	45	236	789	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	283	365	768	51	297	1205	
Arrive On Green	0.17	0.17	0.46	0.46	0.08	0.63	
Sat Flow, veh/h	1641	1460	1686	111	1818	1909	
Grp Volume(v), veh/h	54	312	0	728	236	789	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1797	1818	1909	
Q Serve(g_s), s	1.7	7.7	0.0	22.6	2.4	15.9	
Cycle Q Clear(g_c), s	1.7	7.7	0.0	22.6	2.4	15.9	
Prop In Lane	1.00	1.00		0.06	1.00		
Lane Grp Cap(c), veh/h	283	365	0	819	297	1205	
V/C Ratio(X)	0.19	0.86	0.00	0.89	0.79	0.65	
Avail Cap(c_a), veh/h	806	830	0	1324	1050	2531	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	21.6	21.9	0.0	15.2	26.0	7.1	
Incr Delay (d2), s/veh	0.1	2.3	0.0	4.7	1.8	0.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.6	4.1	0.0	8.8	3.2	4.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.8	24.1	0.0	19.9	27.9	7.7	
LnGrp LOS	C	C	A	B	C	A	
Approach Vol, veh/h	366		728			1025	
Approach Delay, s/veh	23.8		19.9			12.3	
Approach LOS	C		B			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	10.7	33.8				44.6	16.5
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	4.4	24.6				17.9	9.7
Green Ext Time (p_c), s	0.5	3.2				3.9	0.8

Intersection Summary		
HCM 6th Ctrl Delay		16.9
HCM 6th LOS		B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	2	18	4	6	11	24	607	5	8	690	79
Future Volume (vph)	61	2	18	4	6	11	24	607	5	8	690	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.970			0.926			0.999			0.986	
Flt Protected		0.964			0.991		0.950				0.999	
Satd. Flow (prot)	0	1822	0	0	1766	0	1770	1923	0	0	1943	0
Flt Permitted		0.964			0.991		0.950				0.999	
Satd. Flow (perm)	0	1822	0	0	1766	0	1770	1923	0	0	1943	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		6	2		2	6		2	2		6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	65	2	19	4	6	12	26	646	5	9	734	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	22	0	26	651	0	0	827	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

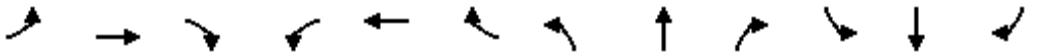
Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	61	2	18	4	6	11	24	607	5	8	690	79
Future Vol, veh/h	61	2	18	4	6	11	24	607	5	8	690	79
Conflicting Peds, #/hr	6	0	6	2	0	2	6	0	2	2	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	65	2	19	4	6	12	26	646	5	9	734	84

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1516	1505	788	1514	1545	657	824	0	0	653	0	0
Stage 1	800	800	-	703	703	-	-	-	-	-	-	-
Stage 2	716	705	-	811	842	-	-	-	-	-	-	-
Critical Hdwy	6.33	5.72	5.82	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.33	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.33	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	136	169	427	98	115	465	806	-	-	934	-	-
Stage 1	450	475	-	428	440	-	-	-	-	-	-	-
Stage 2	492	514	-	373	380	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	120	160	422	88	109	462	802	-	-	932	-	-
Mov Cap-2 Maneuver	120	160	-	88	109	-	-	-	-	-	-	-
Stage 1	433	464	-	413	425	-	-	-	-	-	-	-
Stage 2	455	497	-	346	371	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	61.7	29.5	0.4	0.1
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	802	-	-	144	169	932	-	-
HCM Lane V/C Ratio	0.032	-	-	0.598	0.132	0.009	-	-
HCM Control Delay (s)	9.6	-	-	61.7	29.5	8.9	0	-
HCM Lane LOS	A	-	-	F	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	3.1	0.4	0	-	-

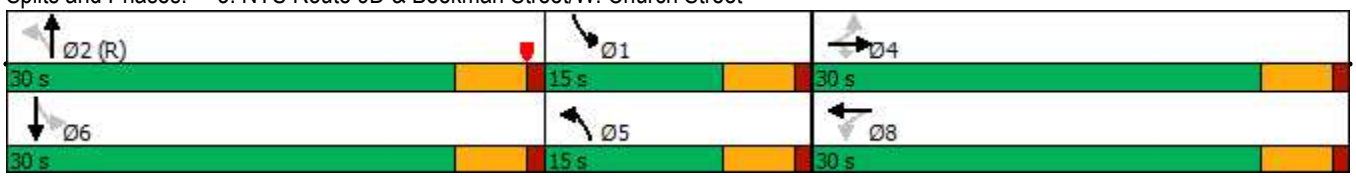


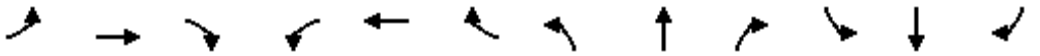
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	6	44	10	4	17	79	470	4	8	512	191
Future Volume (vph)	149	6	44	10	4	17	79	470	4	8	512	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98	0.97		0.98		1.00	1.00		1.00	0.99	
Frt			0.850		0.925			0.999			0.959	
Flt Protected		0.954			0.984		0.950			0.950		
Satd. Flow (prot)	0	1759	1567	0	1743	0	1823	1916	0	1743	1746	0
Flt Permitted		0.710			0.892		0.166			0.367		
Satd. Flow (perm)	0	1288	1524	0	1578	0	318	1916	0	671	1746	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		19			1			27	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	11		3	3		11	6		9	9		6
Confl. Bikes (#/hr)			3									
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	167	7	49	11	4	19	89	528	4	9	575	215
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	174	49	0	34	0	89	532	0	9	790	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0		10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				11	11							
v/c Ratio		0.68	0.13		0.10		0.30	0.44		0.02	0.79	
Control Delay		39.9	1.3		13.6		10.9	11.4		6.8	23.9	
Queue Delay		0.0	0.0		0.0		0.0	0.3		0.0	0.0	
Total Delay		39.9	1.3		13.6		10.9	11.6		6.8	23.9	
Queue Length 50th (ft)		76	0		6		16	105		1	266	
Queue Length 95th (ft)		119	4		23		m26	219		7	#616	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		429	576		538		435	1218		610	995	
Starvation Cap Reductn		0	0		0		0	217		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.41	0.09		0.06		0.20	0.53		0.01	0.79	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street

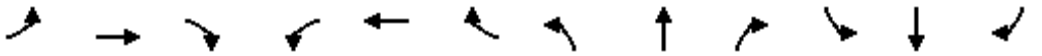




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	6	44	10	4	17	79	470	4	8	512	191
Future Volume (veh/h)	149	6	44	10	4	17	79	470	4	8	512	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2263	2263	2263	2106	2106	2106	1817	1817	1817
Adj Flow Rate, veh/h	167	7	49	11	4	19	89	528	4	9	575	215
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	301	11	407	86	57	101	486	696	5	524	419	157
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.19	0.33	0.33	0.19	0.33	0.33
Sat Flow, veh/h	759	39	1497	82	210	371	2006	2087	16	1731	1256	470
Grp Volume(v), veh/h	174	0	49	34	0	0	89	0	532	9	0	790
Grp Sat Flow(s),veh/h/ln	799	0	1497	663	0	0	2006	0	2103	1731	0	1725
Q Serve(g_s), s	0.0	0.0	1.8	0.3	0.0	0.0	0.0	0.0	16.9	0.0	0.0	25.0
Cycle Q Clear(g_c), s	17.5	0.0	1.8	17.8	0.0	0.0	0.0	0.0	16.9	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.32		0.56	1.00		0.01	1.00		0.27
Lane Grp Cap(c), veh/h	311	0	407	244	0	0	486	0	701	524	0	575
V/C Ratio(X)	0.56	0.00	0.12	0.14	0.00	0.00	0.18	0.00	0.76	0.02	0.00	1.37
Avail Cap(c_a), veh/h	395	0	499	355	0	0	486	0	701	524	0	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.87	0.00	0.87	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.2	0.0	20.5	21.4	0.0	0.0	24.3	0.0	22.3	18.5	0.0	25.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.1	0.0	0.0	0.1	0.0	6.6	0.0	0.0	179.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.6	0.4	0.0	0.0	1.2	0.0	9.1	0.1	0.0	38.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	0.0	20.6	21.5	0.0	0.0	24.4	0.0	28.9	18.5	0.0	204.0
LnGrp LOS	C	A	C	C	A	A	C	A	C	B	A	F
Approach Vol, veh/h		223			34			621			799	
Approach Delay, s/veh		25.4			21.5			28.3			201.9	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.6	30.0		25.4	19.6	30.0		25.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	2.0	18.9		19.5	2.0	27.0		19.8				
Green Ext Time (p_c), s	0.0	0.7		0.2	0.0	0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		110.5	
HCM 6th LOS		F	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	2	2	38	0	209	2	343	52	265	306	3
Future Volume (vph)	2	2	2	38	0	209	2	343	52	265	306	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.97		0.99			1.00	
Frt		0.955				0.850		0.980			0.999	
Flt Protected		0.984			0.950		0.950			0.950		
Satd. Flow (prot)	0	1751	0	0	1877	1663	1832	1822	0	1760	1851	0
Flt Permitted		0.898			0.752		0.558			0.385		
Satd. Flow (perm)	0	1598	0	0	1486	1614	1076	1822	0	713	1851	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		3									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			14			6			48			11
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	2%	5%	1%	1%	0%
Adj. Flow (vph)	3	3	3	43	0	235	2	390	59	288	333	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	9	0	0	43	235	2	449	0	288	336	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0	15.0	15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	20.0%	20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0	10.0	10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	14	14		6	6			48				
v/c Ratio		0.04			0.23	0.59	0.00	0.42		0.41	0.23	
Control Delay		20.5			28.9	27.3	6.5	14.0		8.0	5.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		20.5			28.9	27.3	6.5	14.0		8.0	5.0	
Queue Length 50th (ft)		3			19	91	0	103		18	21	
Queue Length 95th (ft)		9			36	94	3	278		m78	m74	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		534			495	408	874	1067		719	1472	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	6		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.02			0.09	0.58	0.00	0.42		0.40	0.23	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	2	38	0	209	2	343	52	265	306	3
Future Volume (veh/h)	2	2	2	38	0	209	2	343	52	265	306	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.96		0.98	0.99		0.95	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2200	2018	1988	1943	1832	1832	1847
Adj Flow Rate, veh/h	3	3	3	43	0	235	2	390	59	288	333	3
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	1	0	2	5	1	1	0
Cap, veh/h	124	118	89	375	0	496	694	889	135	618	1134	10
Arrive On Green	0.17	0.17	0.17	0.17	0.00	0.17	0.00	0.53	0.53	0.10	0.63	0.63
Sat Flow, veh/h	348	684	516	1614	0	1832	1922	1675	253	1745	1813	16
Grp Volume(v), veh/h	9	0	0	43	0	235	2	0	449	288	0	336
Grp Sat Flow(s),veh/h/ln	1548	0	0	1614	0	1832	1922	0	1928	1745	0	1829
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	8.1	0.0	0.0	10.7	5.1	0.0	6.3
Cycle Q Clear(g_c), s	0.3	0.0	0.0	1.6	0.0	8.1	0.0	0.0	10.7	5.1	0.0	6.3
Prop In Lane	0.33		0.33	1.00		1.00	1.00		0.13	1.00		0.01
Lane Grp Cap(c), veh/h	332	0	0	375	0	496	694	0	1024	618	0	1144
V/C Ratio(X)	0.03	0.00	0.00	0.11	0.00	0.47	0.00	0.00	0.44	0.47	0.00	0.29
Avail Cap(c_a), veh/h	567	0	0	632	0	790	947	0	1024	683	0	1144
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.57	0.00	0.57
Uniform Delay (d), s/veh	25.8	0.0	0.0	26.3	0.0	23.0	8.2	0.0	10.8	7.0	0.0	6.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	1.4	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.6	0.0	3.4	0.0	0.0	4.4	1.5	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.8	0.0	0.0	26.3	0.0	23.3	8.2	0.0	12.1	7.1	0.0	6.8
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		9			278			451			624	
Approach Delay, s/veh		25.8			23.7			12.1			6.9	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	44.8		18.0	5.1	51.9		18.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	7.1	12.7		2.3	2.0	8.3		10.1				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		12.2	
HCM 6th LOS		B	



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	2	0	200	256	0
Future Volume (vph)	2	2	0	200	256	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976					
Satd. Flow (prot)	1838	0	0	1977	1909	0
Flt Permitted	0.976					
Satd. Flow (perm)	1838	0	0	1977	1909	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	17	17			14
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	2	2	0	233	298	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	233	298	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	2	0	200	256	0
Future Vol, veh/h	2	2	0	200	256	0
Conflicting Peds, #/hr	14	17	17	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	2	0	233	298	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	562	332	315	0	-	0
Stage 1	315	-	-	-	-	-
Stage 2	247	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	667	778	1245	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	647	753	1226	-	-	-
Mov Cap-2 Maneuver	647	-	-	-	-	-
Stage 1	868	-	-	-	-	-
Stage 2	897	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1226	-	696	-	-
HCM Lane V/C Ratio	-	-	0.007	-	-
HCM Control Delay (s)	0	-	10.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



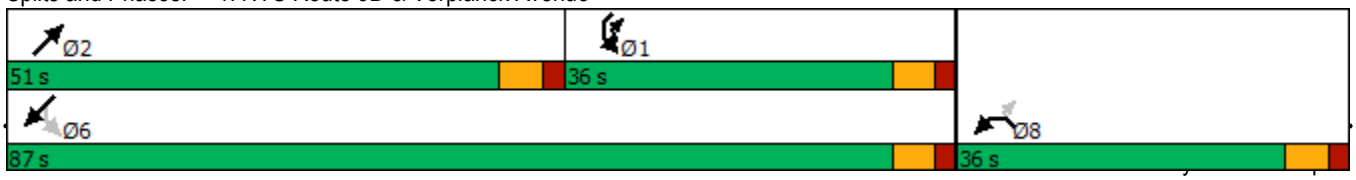
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	68	293	595	54	291	722
Future Volume (vph)	68	293	595	54	291	722
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		1.00			
Frt		0.850	0.989			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1811	0	1778	1854
Flt Permitted	0.950				0.232	
Satd. Flow (perm)	1715	1544	1811	0	434	1854
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	2			1	1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%
Adj. Flow (vph)	72	308	626	57	306	760
Shared Lane Traffic (%)						
Lane Group Flow (vph)	72	308	683	0	306	760
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.39	0.56	0.75		0.49	0.51
Control Delay	45.7	26.0	27.5		14.1	6.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	45.7	26.0	27.5		14.1	6.1
Queue Length 50th (ft)	40	136	299		37	129
Queue Length 95th (ft)	88	208	#692		100	328
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	595	624	937		847	1640
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.12	0.49	0.73		0.36	0.46

Intersection Summary

Area Type: Other
Cycle Length: 123
Actuated Cycle Length: 89.5
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue

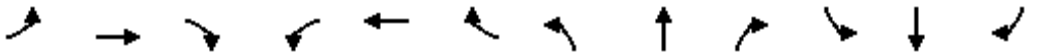




Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	68	293	595	54	291	722	
Future Volume (veh/h)	68	293	595	54	291	722	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1894	
Adj Flow Rate, veh/h	72	308	626	57	306	760	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	3	
Cap, veh/h	224	365	715	65	373	1239	
Arrive On Green	0.14	0.14	0.44	0.44	0.11	0.65	
Sat Flow, veh/h	1641	1460	1641	149	1818	1894	
Grp Volume(v), veh/h	72	308	0	683	306	760	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1790	1818	1894	
Q Serve(g_s), s	2.3	5.0	0.0	20.0	4.0	13.3	
Cycle Q Clear(g_c), s	2.3	5.0	0.0	20.0	4.0	13.3	
Prop In Lane	1.00	1.00		0.08	1.00		
Lane Grp Cap(c), veh/h	224	365	0	781	373	1239	
V/C Ratio(X)	0.32	0.84	0.00	0.88	0.82	0.61	
Avail Cap(c_a), veh/h	859	930	0	1405	1118	2676	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	22.4	20.4	0.0	14.7	23.0	5.7	
Incr Delay (d2), s/veh	0.3	2.1	0.0	3.3	1.7	0.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.8	3.7	0.0	7.4	3.8	3.5	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.7	22.5	0.0	18.0	24.7	6.2	
LnGrp LOS	C	C	A	B	C	A	
Approach Vol, veh/h	380		683			1066	
Approach Delay, s/veh	22.5		18.0			11.5	
Approach LOS	C		B			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.5	31.0				43.5	13.8
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	6.0	22.0				15.3	7.0
Green Ext Time (p_c), s	0.6	3.0				3.7	0.9

Intersection Summary			
HCM 6th Ctrl Delay		15.6	
HCM 6th LOS		B	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	4	38	9	0	9	20	555	6	2	730	65
Future Volume (vph)	85	4	38	9	0	9	20	555	6	2	730	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.959			0.932			0.998			0.989	
Flt Protected		0.968			0.976		0.950					
Satd. Flow (prot)	0	1812	0	0	1661	0	1770	1849	0	0	1903	0
Flt Permitted		0.968			0.976		0.950					
Satd. Flow (perm)	0	1812	0	0	1661	0	1770	1849	0	0	1903	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		8	14		12	8		14	12		6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	4%	13%	2%	2%	2%	6%	2%	2%	4%	11%
Adj. Flow (vph)	89	4	40	9	0	9	21	584	6	2	768	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	18	0	21	590	0	0	838	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	6.6

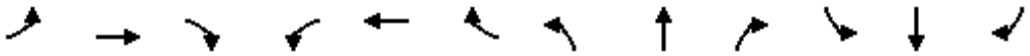
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	85	4	38	9	0	9	20	555	6	2	730	65
Future Vol, veh/h	85	4	38	9	0	9	20	555	6	2	730	65
Conflicting Peds, #/hr	6	0	8	14	0	12	8	0	14	12	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	4	13	2	2	2	6	2	2	4	11
Mvmt Flow	89	4	40	9	0	9	21	584	6	2	768	68

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1460	1460	824	1485	1491	613	844	0	0	604	0	0
Stage 1	814	814	-	643	643	-	-	-	-	-	-	-
Stage 2	646	646	-	842	848	-	-	-	-	-	-	-
Critical Hdwy	6.32	5.72	5.84	7.23	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.32	4.72	-	6.23	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.32	4.72	-	6.23	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.336	3.617	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	148	179	405	97	124	492	792	-	-	974	-	-
Stage 1	446	469	-	444	468	-	-	-	-	-	-	-
Stage 2	531	539	-	344	378	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	139	170	397	81	118	481	786	-	-	962	-	-
Mov Cap-2 Maneuver	139	170	-	81	118	-	-	-	-	-	-	-
Stage 1	431	464	-	427	449	-	-	-	-	-	-	-
Stage 2	501	517	-	301	374	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	72.9	34.9	0.3	0
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	786	-	-	174	139	962	-	-
HCM Lane V/C Ratio	0.027	-	-	0.768	0.136	0.002	-	-
HCM Control Delay (s)	9.7	-	-	72.9	34.9	8.8	0	-
HCM Lane LOS	A	-	-	F	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	5	0.5	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	5	63	9	10	17	36	449	3	3	520	254
Future Volume (vph)	123	5	63	9	10	17	36	449	3	3	520	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.98		0.99		1.00	1.00		0.99	0.99	
Frt			0.850		0.938			0.999			0.951	
Flt Protected		0.954			0.987		0.950			0.950		
Satd. Flow (prot)	0	1713	1494	0	1792	0	1754	1844	0	1743	1693	0
Flt Permitted		0.705			0.910		0.187			0.427		
Satd. Flow (perm)	0	1264	1460	0	1651	0	345	1844	0	779	1693	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		18						35	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	1		2	2		1	7		14	14		7
Confl. Bikes (#/hr)						1			1			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	25%	7%	2%	2%	2%	6%	6%	2%	2%	5%	2%
Adj. Flow (vph)	132	5	68	10	11	18	39	483	3	3	559	273
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	137	68	0	39	0	39	486	0	3	832	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

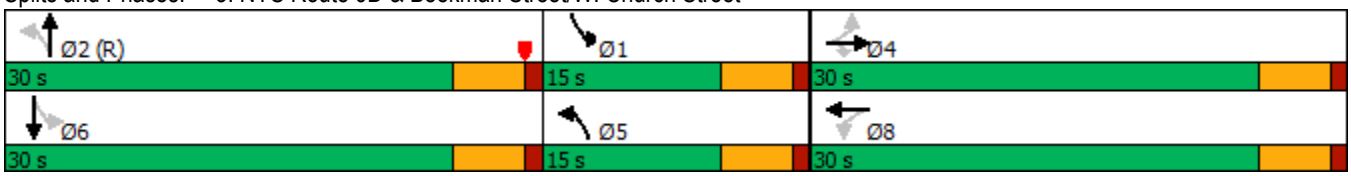


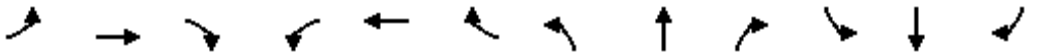
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0		10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				2	2							
v/c Ratio		0.60	0.20		0.13		0.12	0.37		0.01	0.74	
Control Delay		37.8	3.3		15.4		4.7	7.8		6.3	19.5	
Queue Delay		0.0	0.0		0.0		0.0	0.1		0.0	0.0	
Total Delay		37.8	3.3		15.4		4.7	7.9		6.3	19.5	
Queue Length 50th (ft)		60	0		8		4	54		0	275	
Queue Length 95th (ft)		96	15		27		m8	169		4	#650	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		421	554		562		456	1302		715	1128	
Starvation Cap Reductn		0	0		0		0	151		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.33	0.12		0.07		0.09	0.42		0.00	0.74	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	5	63	9	10	17	36	449	3	3	520	254
Future Volume (veh/h)	123	5	63	9	10	17	36	449	3	3	520	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1817	1506	1773	2263	2263	2263	2046	2046	2106	1817	1773	1817
Adj Flow Rate, veh/h	132	5	68	10	11	18	39	483	3	3	559	273
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	25	7	2	2	2	6	6	2	2	5	2
Cap, veh/h	250	7	453	75	99	97	415	677	4	490	369	180
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.16	0.33	0.33	0.16	0.33	0.33
Sat Flow, veh/h	516	25	1497	48	326	321	1948	2030	13	1731	1107	541
Grp Volume(v), veh/h	137	0	68	39	0	0	39	0	486	3	0	832
Grp Sat Flow(s),veh/h/ln	540	0	1497	695	0	0	1948	0	2043	1731	0	1648
Q Serve(g_s), s	0.0	0.0	2.5	0.3	0.0	0.0	0.0	0.0	15.6	0.0	0.0	25.0
Cycle Q Clear(g_c), s	20.5	0.0	2.5	20.8	0.0	0.0	0.0	0.0	15.6	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.26		0.46	1.00		0.01	1.00		0.33
Lane Grp Cap(c), veh/h	258	0	453	271	0	0	415	0	681	490	0	549
V/C Ratio(X)	0.53	0.00	0.15	0.14	0.00	0.00	0.09	0.00	0.71	0.01	0.00	1.51
Avail Cap(c_a), veh/h	292	0	499	328	0	0	415	0	681	490	0	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.90	0.00	0.90	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.3	0.0	19.1	20.1	0.0	0.0	26.2	0.0	21.9	19.0	0.0	25.0
Incr Delay (d2), s/veh	0.6	0.0	0.1	0.1	0.0	0.0	0.0	0.0	5.7	0.0	0.0	240.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.8	0.5	0.0	0.0	0.6	0.0	8.1	0.0	0.0	45.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.9	0.0	19.2	20.2	0.0	0.0	26.2	0.0	27.5	19.0	0.0	265.9
LnGrp LOS	C	A	B	C	A	A	C	A	C	B	A	F
Approach Vol, veh/h		205			39			525			835	
Approach Delay, s/veh		23.7			20.2			27.5			265.0	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.3	30.0		27.7	17.3	30.0		27.7				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	2.0	17.6		22.5	2.0	27.0		22.8				
Green Ext Time (p_c), s	0.0	0.7		0.1	0.0	0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		150.5	
HCM 6th LOS		F	

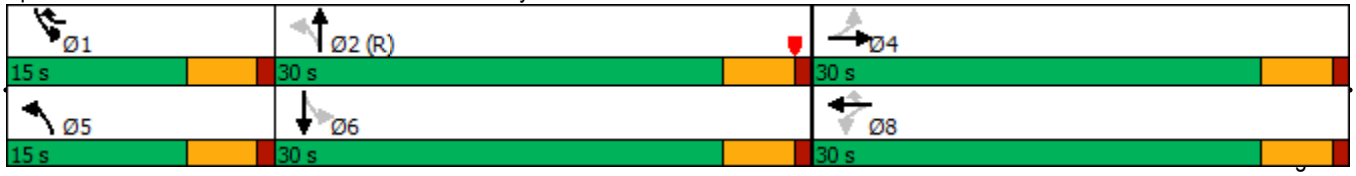
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	5	3	21	7	122	5	362	38	260	336	6
Future Volume (vph)	4	5	3	21	7	122	5	362	38	260	336	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.96		0.99			1.00	
Frt		0.966				0.850		0.986			0.997	
Flt Protected		0.983			0.964		0.950			0.950		
Satd. Flow (prot)	0	1779	0	0	1905	1647	1832	1849	0	1743	1846	0
Flt Permitted		0.882			0.769		0.532			0.346		
Satd. Flow (perm)	0	1596	0	0	1520	1574	1026	1849	0	635	1846	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		5									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			9			15			21			12
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	2%	5%	2%	1%	0%
Adj. Flow (vph)	7	8	5	23	8	134	6	458	48	295	382	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	31	134	6	506	0	295	389	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	40		20	40	40	40	40		40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

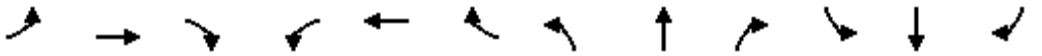
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0	15.0	15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	20.0%	20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0	10.0	10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	15	15		15	15			21				
v/c Ratio		0.10			0.17	0.35	0.01	0.47		0.44	0.26	
Control Delay		21.7			28.0	20.3	6.4	15.4		8.1	4.8	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.2	
Total Delay		21.7			28.0	20.3	6.4	15.4		8.1	5.0	
Queue Length 50th (ft)		7			14	46	1	132		19	25	
Queue Length 95th (ft)		12			29	56	5	273		m95	m96	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		535			506	407	846	1085		678	1476	
Starvation Cap Reductn		0			0	0	0	0		0	413	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.04			0.06	0.33	0.01	0.47		0.44	0.37	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 70
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	5	3	21	7	122	5	362	38	260	336	6
Future Volume (veh/h)	4	5	3	21	7	122	5	362	38	260	336	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.95	0.97		0.95	0.99		0.96	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2185	2018	1988	1943	1817	1832	1847
Adj Flow Rate, veh/h	7	8	5	23	8	134	6	458	48	295	382	7
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	2	0	2	5	2	1	0
Cap, veh/h	115	117	56	253	79	417	703	999	105	614	1174	22
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.00	0.57	0.57	0.09	0.65	0.65
Sat Flow, veh/h	360	834	398	1200	563	1753	1922	1761	185	1731	1793	33
Grp Volume(v), veh/h	20	0	0	31	0	134	6	0	506	295	0	389
Grp Sat Flow(s),veh/h/ln	1592	0	0	1764	0	1753	1922	0	1946	1731	0	1826
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	4.8	0.1	0.0	11.4	4.8	0.0	7.0
Cycle Q Clear(g_c), s	0.7	0.0	0.0	1.0	0.0	4.8	0.1	0.0	11.4	4.8	0.0	7.0
Prop In Lane	0.35		0.25	0.74		1.00	1.00		0.09	1.00		0.02
Lane Grp Cap(c), veh/h	289	0	0	332	0	417	703	0	1103	614	0	1195
V/C Ratio(X)	0.07	0.00	0.00	0.09	0.00	0.32	0.01	0.00	0.46	0.48	0.00	0.33
Avail Cap(c_a), veh/h	578	0	0	665	0	755	951	0	1103	685	0	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.65	0.00	0.65
Uniform Delay (d), s/veh	28.0	0.0	0.0	28.1	0.0	23.9	6.9	0.0	9.5	6.3	0.0	5.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	1.4	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.5	0.0	1.9	0.0	0.0	4.6	1.3	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	0.0	0.0	28.1	0.0	24.1	6.9	0.0	10.9	6.4	0.0	6.2
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		20			165			512			684	
Approach Delay, s/veh		28.0			24.8			10.8			6.3	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.9	47.5		15.6	5.4	54.1		15.6				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	6.8	13.4		2.7	2.1	9.0		6.8				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.3		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		10.5	
HCM 6th LOS		B	



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	2	2	163	289	0
Future Volume (vph)	2	2	2	163	289	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976			0.999		
Satd. Flow (prot)	1838	0	0	1938	1909	0
Flt Permitted	0.976			0.999		
Satd. Flow (perm)	1838	0	0	1938	1909	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	16	16			14
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%
Adj. Flow (vph)	3	3	3	206	366	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	209	366	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	2	2	163	289	0
Future Vol, veh/h	2	2	2	163	289	0
Conflicting Peds, #/hr	14	16	16	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	4	2	2
Mvmt Flow	3	3	3	206	366	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	608	398	382	0	-	0
Stage 1	382	-	-	-	-	-
Stage 2	226	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	643	728	1176	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	920	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	623	706	1159	-	-	-
Mov Cap-2 Maneuver	623	-	-	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	907	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.5	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1159	-	662	-	-
HCM Lane V/C Ratio	0.002	-	0.008	-	-
HCM Control Delay (s)	8.1	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	31	7	5	159	282	17
Future Volume (vph)	31	7	5	159	282	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	16	11	12
Grade (%)	0%			2%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.975				0.992	
Flt Protected	0.961			0.999		
Satd. Flow (prot)	1920	0	0	2049	1786	0
Flt Permitted	0.961			0.999		
Satd. Flow (perm)	1920	0	0	2049	1786	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			216	408	
Travel Time (s)	4.5			4.9	9.3	
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%
Adj. Flow (vph)	39	9	6	201	357	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	48	0	0	207	379	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.86	1.04	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	31	7	5	159	282	17
Future Vol, veh/h	31	7	5	159	282	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	4	2	2
Mvmt Flow	39	9	6	201	357	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	581	368	379	0	-	0
Stage 1	368	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	476	677	1179	-	-	-
Stage 1	700	-	-	-	-	-
Stage 2	823	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	473	677	1179	-	-	-
Mov Cap-2 Maneuver	473	-	-	-	-	-
Stage 1	696	-	-	-	-	-
Stage 2	823	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	12.9	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1179	-	501	-	-
HCM Lane V/C Ratio	0.005	-	0.096	-	-
HCM Control Delay (s)	8.1	0	12.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	116	0	11	74	0	9
Future Volume (vph)	116	0	11	74	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	13	9	12
Grade (%)	-5%			3%	3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.994		
Satd. Flow (prot)	1973	0	0	1885	1428	0
Flt Permitted				0.994		
Satd. Flow (perm)	1973	0	0	1885	1428	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	341			103	156	
Travel Time (s)	7.8			2.3	3.5	
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Adj. Flow (vph)	147	0	14	94	0	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	147	0	0	108	11	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	9	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.93	0.97	1.02	0.98	1.17	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	116	0	11	74	0	9
Future Vol, veh/h	116	0	11	74	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	3	3	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	147	0	14	94	0	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	147	0	269	147
Stage 1	-	-	-	-	147	-
Stage 2	-	-	-	-	122	-
Critical Hdwy	-	-	4.12	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1435	-	689	889
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	885	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1435	-	682	889
Mov Cap-2 Maneuver	-	-	-	-	682	-
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	876	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	889	-	-	1435	-
HCM Lane V/C Ratio	0.013	-	-	0.01	-
HCM Control Delay (s)	9.1	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

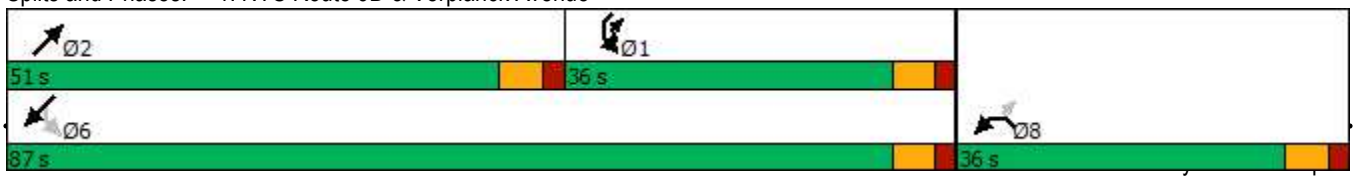


Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	71	345	731	61	233	714
Future Volume (vph)	71	345	731	61	233	714
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		1.00			
Frt		0.850	0.990			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1813	0	1778	1854
Flt Permitted	0.950				0.109	
Satd. Flow (perm)	1720	1544	1813	0	204	1854
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	1			3	3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%
Adj. Flow (vph)	75	363	769	64	245	752
Shared Lane Traffic (%)						
Lane Group Flow (vph)	75	363	833	0	245	752
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	3		3			
v/c Ratio	0.41	0.62	0.93		0.46	0.50
Control Delay	48.0	27.6	44.4		21.2	6.0
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	48.0	27.6	44.4		21.2	6.0
Queue Length 50th (ft)	43	168	458		49	129
Queue Length 95th (ft)	92	251	#954		144	320
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	565	639	892		692	1597
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.13	0.57	0.93		0.35	0.47

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 93.4	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue

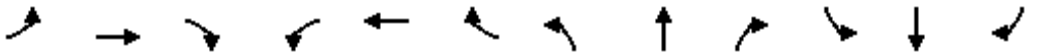




Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	71	345	731	61	233	714	
Future Volume (veh/h)	71	345	731	61	233	714	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1894	
Adj Flow Rate, veh/h	75	363	769	64	245	752	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	3	
Cap, veh/h	292	404	821	68	293	1271	
Arrive On Green	0.18	0.18	0.50	0.50	0.10	0.67	
Sat Flow, veh/h	1641	1460	1654	138	1818	1894	
Grp Volume(v), veh/h	75	363	0	833	245	752	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1792	1818	1894	
Q Serve(g_s), s	3.1	11.1	0.0	34.7	5.4	17.2	
Cycle Q Clear(g_c), s	3.1	11.1	0.0	34.7	5.4	17.2	
Prop In Lane	1.00	1.00		0.08	1.00		
Lane Grp Cap(c), veh/h	292	404	0	889	293	1271	
V/C Ratio(X)	0.26	0.90	0.00	0.94	0.84	0.59	
Avail Cap(c_a), veh/h	621	697	0	1018	802	1936	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	28.1	27.6	0.0	18.8	33.2	7.1	
Incr Delay (d2), s/veh	0.2	4.2	0.0	14.3	2.4	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.2	3.6	0.0	16.3	4.6	5.6	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	28.2	31.8	0.0	33.1	35.7	7.6	
LnGrp LOS	C	C	A	C	D	A	
Approach Vol, veh/h	438		833			997	
Approach Delay, s/veh	31.2		33.1			14.5	
Approach LOS	C		C			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	13.8	45.3				59.2	20.1
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	7.4	36.7				19.2	13.1
Green Ext Time (p_c), s	0.5	2.6				3.7	1.0

Intersection Summary		
HCM 6th Ctrl Delay		24.6
HCM 6th LOS		C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	6	19	7	4	5	27	721	6	6	660	100
Future Volume (vph)	63	6	19	7	4	5	27	721	6	6	660	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.970			0.960			0.999			0.982	
Flt Protected		0.966			0.977		0.950					
Satd. Flow (prot)	0	1840	0	0	1693	0	1770	1923	0	0	1921	0
Flt Permitted		0.966			0.977		0.950					
Satd. Flow (perm)	0	1840	0	0	1693	0	1770	1923	0	0	1921	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	4		4	2		2	4		2	2		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	25%	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	68	7	21	8	4	5	29	784	7	7	717	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	96	0	0	17	0	29	791	0	0	833	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	63	6	19	7	4	5	27	721	6	6	660	100
Future Vol, veh/h	63	6	19	7	4	5	27	721	6	6	660	100
Conflicting Peds, #/hr	4	0	4	2	0	2	4	0	2	2	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	25	2	2	2	2	3	2
Mvmt Flow	68	7	21	8	4	5	29	784	7	7	717	109

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1644	1641	780	1652	1692	794	830	0	0	793	0	0
Stage 1	790	790	-	848	848	-	-	-	-	-	-	-
Stage 2	854	851	-	804	844	-	-	-	-	-	-	-
Critical Hdwy	6.32	5.72	5.82	7.12	6.52	6.45	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.32	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.32	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.525	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	115	144	431	79	93	354	802	-	-	828	-	-
Stage 1	457	479	-	356	378	-	-	-	-	-	-	-
Stage 2	427	455	-	377	379	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	104	136	428	69	88	352	799	-	-	827	-	-
Mov Cap-2 Maneuver	104	136	-	69	88	-	-	-	-	-	-	-
Stage 1	439	469	-	342	364	-	-	-	-	-	-	-
Stage 2	399	438	-	347	371	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	90.5	49	0.3	0.1
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	799	-	-	127	99	827	-	-
HCM Lane V/C Ratio	0.037	-	-	0.753	0.176	0.008	-	-
HCM Control Delay (s)	9.7	-	-	90.5	49	9.4	0	-
HCM Lane LOS	A	-	-	F	E	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	4.3	0.6	0	-	-

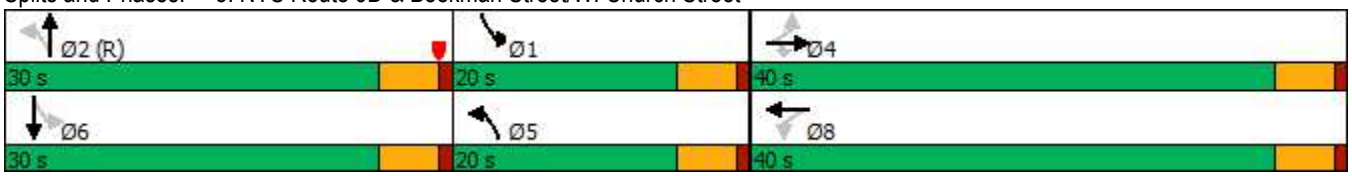
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	308	13	62	2	8	16	73	430	13	5	531	150
Future Volume (vph)	308	13	62	2	8	16	73	430	13	5	531	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.98		1.00	1.00		1.00	0.99	
Frt			0.850		0.918			0.996			0.967	
Flt Protected		0.954			0.996		0.950			0.950		
Satd. Flow (prot)	0	1759	1567	0	1761	0	1690	1892	0	1743	1748	0
Flt Permitted		0.714			0.980		0.124			0.349		
Satd. Flow (perm)	0	1312	1567	0	1733	0	220	1892	0	640	1748	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85		17			2			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	2					2	6		2	2		6
Confl. Bikes (#/hr)						1			1			1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	10%	3%	2%	2%	3%	2%
Adj. Flow (vph)	335	14	67	2	9	17	79	467	14	5	577	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	349	67	0	28	0	79	481	0	5	740	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

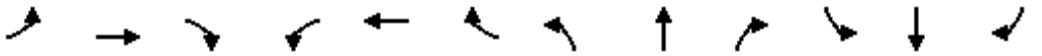
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0		20.0	30.0		20.0	30.0	
Total Split (%)	44.4%	44.4%	44.4%	44.4%	44.4%		22.2%	33.3%		22.2%	33.3%	
Maximum Green (s)	35.0	35.0	35.0	35.0	35.0		15.0	25.0		15.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				2	2							
v/c Ratio		0.85	0.12		0.05		0.39	0.47		0.01	0.87	
Control Delay		46.8	3.3		10.7		20.7	16.0		11.8	36.6	
Queue Delay		0.0	0.0		0.0		0.0	0.4		0.0	0.0	
Total Delay		46.8	3.3		10.7		20.7	16.4		11.8	36.6	
Queue Length 50th (ft)		182	0		4		16	147		1	364	
Queue Length 95th (ft)		255	18		20		m35	245		7	#741	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		515	667		691		395	1034		600	854	
Starvation Cap Reductn		0	0		0		0	184		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.68	0.10		0.04		0.20	0.57		0.01	0.87	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 80
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	308	13	62	2	8	16	73	430	13	5	531	150
Future Volume (veh/h)	308	13	62	2	8	16	73	430	13	5	531	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2263	2263	2263	1986	2091	2106	1817	1803	1817
Adj Flow Rate, veh/h	335	14	67	2	9	17	79	467	14	5	577	163
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	10	3	2	2	3	2
Cap, veh/h	178	4	607	43	166	256	395	560	17	422	372	105
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.17	0.28	0.28	0.17	0.28	0.28
Sat Flow, veh/h	255	11	1561	0	426	658	1891	2017	60	1731	1341	379
Grp Volume(v), veh/h	349	0	67	28	0	0	79	0	481	5	0	740
Grp Sat Flow(s),veh/h/ln	266	0	1561	1084	0	0	1891	0	2078	1731	0	1720
Q Serve(g_s), s	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	19.6	0.0	0.0	25.0
Cycle Q Clear(g_c), s	35.0	0.0	2.5	35.0	0.0	0.0	0.0	0.0	19.6	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.07		0.61	1.00		0.03	1.00		0.22
Lane Grp Cap(c), veh/h	182	0	607	465	0	0	395	0	577	422	0	478
V/C Ratio(X)	1.92	0.00	0.11	0.06	0.00	0.00	0.20	0.00	0.83	0.01	0.00	1.55
Avail Cap(c_a), veh/h	182	0	607	465	0	0	395	0	577	422	0	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.86	0.00	0.86	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	0.0	17.6	18.5	0.0	0.0	31.3	0.0	30.5	27.1	0.0	32.5
Incr Delay (d2), s/veh	433.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	11.6	0.0	0.0	257.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.9	0.0	0.9	0.4	0.0	0.0	1.4	0.0	11.3	0.1	0.0	44.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	468.3	0.0	17.6	18.5	0.0	0.0	31.3	0.0	42.2	27.1	0.0	289.8
LnGrp LOS	F	A	B	B	A	A	C	A	D	C	A	F
Approach Vol, veh/h		416			28			560			745	
Approach Delay, s/veh		395.7			18.5			40.6			288.1	
Approach LOS		F			B			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	30.0		40.0	20.0	30.0		40.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	25.0		35.0	15.0	25.0		35.0				
Max Q Clear Time (g_c+I1), s	2.0	21.6		37.0	2.0	27.0		37.0				
Green Ext Time (p_c), s	0.0	0.4		0.0	0.0	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			230.1									
HCM 6th LOS			F									

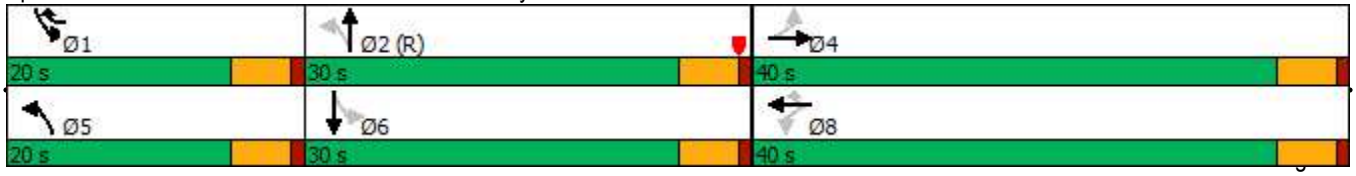
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	8	2	50	2	184	2	329	80	257	347	0
Future Volume (vph)	2	8	2	50	2	184	2	329	80	257	347	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.95		0.99				
Frt		0.979				0.850		0.971				
Flt Protected		0.992			0.954		0.950			0.950		
Satd. Flow (prot)	0	1825	0	0	1885	1647	1832	1803	0	1743	1853	0
Flt Permitted		0.961			0.720		0.529			0.322		
Satd. Flow (perm)	0	1768	0	0	1423	1566	1020	1803	0	591	1853	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		3										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			9			15			21			12
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	2%	5%	2%	1%	0%
Adj. Flow (vph)	3	13	3	55	2	202	3	416	101	292	394	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	0	57	202	3	517	0	292	394	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	40		20	40	40	40	40		40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

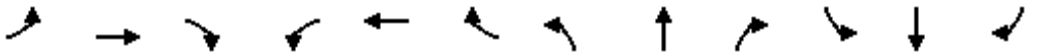
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	40.0	40.0		40.0	40.0	20.0	20.0	30.0		20.0	30.0	
Total Split (%)	44.4%	44.4%		44.4%	44.4%	22.2%	22.2%	33.3%		22.2%	33.3%	
Maximum Green (s)	35.0	35.0		35.0	35.0	15.0	15.0	25.0		15.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	9	9		15	15			21				
v/c Ratio		0.07			0.28	0.42	0.00	0.53		0.45	0.28	
Control Delay		25.3			34.0	22.3	8.0	20.7		13.4	6.1	
Queue Delay		0.0			0.0	0.0	0.0	0.1		0.0	0.4	
Total Delay		25.3			34.0	22.3	8.0	20.8		13.4	6.5	
Queue Length 50th (ft)		9			31	90	0	161		31	30	
Queue Length 95th (ft)		15			57	96	3	326		m115	m98	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		689			553	516	857	983		666	1402	
Starvation Cap Reductn		0			0	0	0	0		0	543	
Spillback Cap Reductn		0			0	0	0	32		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.03			0.10	0.39	0.00	0.54		0.44	0.46	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 70
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	8	2	50	2	184	2	329	80	257	347	0
Future Volume (veh/h)	2	8	2	50	2	184	2	329	80	257	347	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.95	0.97		0.95	0.99		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2185	2018	1988	1943	1817	1832	1847
Adj Flow Rate, veh/h	3	13	3	55	2	202	3	416	101	292	394	0
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	2	0	2	5	2	1	0
Cap, veh/h	66	216	44	332	11	442	701	900	218	600	1229	0
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.00	0.59	0.59	0.09	0.67	0.00
Sat Flow, veh/h	125	1347	276	1582	69	1765	1922	1532	372	1731	1832	0
Grp Volume(v), veh/h	19	0	0	57	0	202	3	0	517	292	394	0
Grp Sat Flow(s),veh/h/ln	1748	0	0	1650	0	1765	1922	0	1904	1731	1832	0
Q Serve(g_s), s	0.0	0.0	0.0	1.7	0.0	8.8	0.1	0.0	13.8	5.6	8.1	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	2.5	0.0	8.8	0.1	0.0	13.8	5.6	8.1	0.0
Prop In Lane	0.16		0.16	0.96		1.00	1.00		0.20	1.00		0.00
Lane Grp Cap(c), veh/h	326	0	0	343	0	442	701	0	1118	600	1229	0
V/C Ratio(X)	0.06	0.00	0.00	0.17	0.00	0.46	0.00	0.00	0.46	0.49	0.32	0.00
Avail Cap(c_a), veh/h	706	0	0	715	0	845	1017	0	1118	740	1229	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.49	0.49	0.00
Uniform Delay (d), s/veh	32.1	0.0	0.0	32.7	0.0	28.9	7.6	0.0	10.5	7.1	6.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0	1.4	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	1.1	0.0	3.7	0.0	0.0	5.7	1.7	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	0.0	0.0	32.8	0.0	29.2	7.6	0.0	11.9	7.3	6.6	0.0
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		19			259			520			686	
Approach Delay, s/veh		32.1			30.0			11.9			6.9	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.7	57.9		19.4	5.2	65.4		19.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	25.0		35.0	15.0	25.0		35.0				
Max Q Clear Time (g_c+I1), s	7.6	15.8		2.8	2.1	10.1		10.8				
Green Ext Time (p_c), s	0.2	0.4		0.0	0.0	0.3		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		13.0	
HCM 6th LOS		B	

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	3	7	0	346	205	3
Future Volume (vph)	3	7	0	346	205	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.904				0.998	
Flt Protected	0.986					
Satd. Flow (prot)	1801	0	0	1977	1869	0
Flt Permitted	0.986					
Satd. Flow (perm)	1801	0	0	1977	1869	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	8	8			14
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	4	10	0	487	289	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	0	0	487	293	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.2

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	3	7	0	346	205	3
Future Vol, veh/h	3	7	0	346	205	3
Conflicting Peds, #/hr	14	8	8	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	4	2
Mvmt Flow	4	10	0	487	289	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	806	313	307	0	-	0
Stage 1	305	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	550	793	1254	-	-	-
Stage 1	886	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	536	777	1238	-	-	-
Mov Cap-2 Maneuver	536	-	-	-	-	-
Stage 1	874	-	-	-	-	-
Stage 2	794	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1238	-	685	-	-
HCM Lane V/C Ratio	-	-	0.021	-	-
HCM Control Delay (s)	0	-	10.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	43	9	9	339	198	31
Future Volume (vph)	43	9	9	339	198	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	16	11	12
Grade (%)	0%			2%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.976				0.982	
Flt Protected	0.960			0.999		
Satd. Flow (prot)	1920	0	0	2088	1739	0
Flt Permitted	0.960			0.999		
Satd. Flow (perm)	1920	0	0	2088	1739	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			216	408	
Travel Time (s)	4.5			4.9	9.3	
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	61	13	13	477	279	44
Shared Lane Traffic (%)						
Lane Group Flow (vph)	74	0	0	490	323	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.86	1.04	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.5

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	43	9	9	339	198	31
Future Vol, veh/h	43	9	9	339	198	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	4	2
Mvmt Flow	61	13	13	477	279	44

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	804	301	323	0	-	0
Stage 1	301	-	-	-	-	-
Stage 2	503	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	352	739	1237	-	-	-
Stage 1	751	-	-	-	-	-
Stage 2	607	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	347	739	1237	-	-	-
Mov Cap-2 Maneuver	347	-	-	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	607	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	16.6	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1237	-	382	-	-
HCM Lane V/C Ratio	0.01	-	0.192	-	-
HCM Control Delay (s)	7.9	0	16.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	77	0	19	111	0	10
Future Volume (vph)	77	0	19	111	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	13	9	12
Grade (%)	-5%			3%	3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.993		
Satd. Flow (prot)	1973	0	0	1883	1428	0
Flt Permitted				0.993		
Satd. Flow (perm)	1973	0	0	1883	1428	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	341			103	156	
Travel Time (s)	7.8			2.3	3.5	
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Adj. Flow (vph)	108	0	27	156	0	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	0	183	14	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	9	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.93	0.97	1.02	0.98	1.17	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	77	0	19	111	0	10
Future Vol, veh/h	77	0	19	111	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	3	3	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	108	0	27	156	0	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	108	0	318	108
Stage 1	-	-	-	-	108	-
Stage 2	-	-	-	-	210	-
Critical Hdwy	-	-	4.12	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1483	-	640	937
Stage 1	-	-	-	-	900	-
Stage 2	-	-	-	-	797	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1483	-	627	937
Mov Cap-2 Maneuver	-	-	-	-	627	-
Stage 1	-	-	-	-	900	-
Stage 2	-	-	-	-	781	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	937	-	-	1483	-
HCM Lane V/C Ratio	0.015	-	-	0.018	-
HCM Control Delay (s)	8.9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-

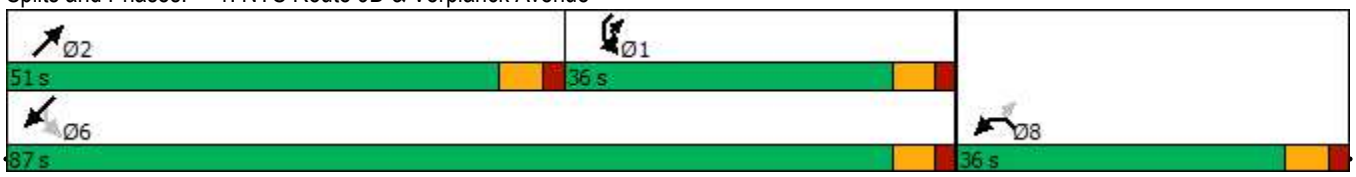
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	55	287	647	46	217	745
Future Volume (vph)	55	287	647	46	217	745
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98		1.00			
Frt		0.850	0.991			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1816	0	1778	1872
Flt Permitted	0.950				0.186	
Satd. Flow (perm)	1688	1544	1816	0	348	1872
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	7			1	1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	312	703	50	236	810
Shared Lane Traffic (%)						
Lane Group Flow (vph)	60	312	753	0	236	810
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.34	0.57	0.81		0.41	0.53
Control Delay	44.7	26.8	30.4		13.2	6.3
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	44.7	26.8	30.4		13.2	6.3
Queue Length 50th (ft)	33	139	347		26	136
Queue Length 95th (ft)	75	211	#793		77	364
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	588	615	928		796	1663
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.10	0.51	0.81		0.30	0.49

Intersection Summary

Area Type: Other
Cycle Length: 123
Actuated Cycle Length: 89.9
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue

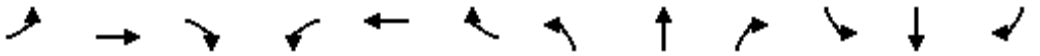




Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	55	287	647	46	217	745	
Future Volume (veh/h)	55	287	647	46	217	745	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1909	
Adj Flow Rate, veh/h	60	312	703	50	236	810	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	278	363	784	56	295	1225	
Arrive On Green	0.17	0.17	0.47	0.47	0.08	0.64	
Sat Flow, veh/h	1641	1460	1676	119	1818	1909	
Grp Volume(v), veh/h	60	312	0	753	236	810	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1796	1818	1909	
Q Serve(g_s), s	2.0	7.9	0.0	24.4	2.7	16.8	
Cycle Q Clear(g_c), s	2.0	7.9	0.0	24.4	2.7	16.8	
Prop In Lane	1.00	1.00		0.07	1.00		
Lane Grp Cap(c), veh/h	278	363	0	840	295	1225	
V/C Ratio(X)	0.22	0.86	0.00	0.90	0.80	0.66	
Avail Cap(c_a), veh/h	776	806	0	1274	1011	2438	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	22.7	22.8	0.0	15.5	27.0	7.1	
Incr Delay (d2), s/veh	0.1	2.3	0.0	5.9	1.9	0.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.7	4.3	0.0	9.8	3.4	5.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.9	25.1	0.0	21.4	28.9	7.7	
LnGrp LOS	C	C	A	C	C	A	
Approach Vol, veh/h	372		753			1046	
Approach Delay, s/veh	24.8		21.4			12.5	
Approach LOS	C		C			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	11.0	35.7				46.7	16.7
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	4.7	26.4				18.8	9.9
Green Ext Time (p_c), s	0.5	3.3				4.1	0.8

Intersection Summary		
HCM 6th Ctrl Delay		17.7
HCM 6th LOS		B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	2	18	4	6	11	24	621	5	8	696	97
Future Volume (vph)	70	2	18	4	6	11	24	621	5	8	696	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.973			0.926			0.999			0.984	
Flt Protected		0.963			0.991		0.950				0.999	
Satd. Flow (prot)	0	1826	0	0	1766	0	1770	1923	0	0	1939	0
Flt Permitted		0.963			0.991		0.950				0.999	
Satd. Flow (perm)	0	1826	0	0	1766	0	1770	1923	0	0	1939	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		6	2		2	6		2	2		6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	74	2	19	4	6	12	26	661	5	9	740	103
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	95	0	0	22	0	26	666	0	0	852	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

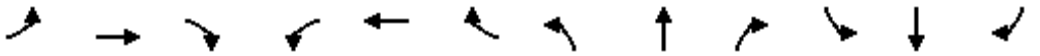
Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	2	18	4	6	11	24	621	5	8	696	97
Future Vol, veh/h	70	2	18	4	6	11	24	621	5	8	696	97
Conflicting Peds, #/hr	6	0	6	2	0	2	6	0	2	2	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	74	2	19	4	6	12	26	661	5	9	740	103

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1547	1536	804	1544	1585	672	849	0	0	668	0	0
Stage 1	816	816	-	718	718	-	-	-	-	-	-	-
Stage 2	731	720	-	826	867	-	-	-	-	-	-	-
Critical Hdwy	6.33	5.72	5.82	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.33	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.33	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	131	163	419	94	108	456	789	-	-	922	-	-
Stage 1	443	468	-	420	433	-	-	-	-	-	-	-
Stage 2	484	507	-	366	370	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	116	154	414	85	102	453	785	-	-	920	-	-
Mov Cap-2 Maneuver	116	154	-	85	102	-	-	-	-	-	-	-
Stage 1	426	457	-	405	418	-	-	-	-	-	-	-
Stage 2	446	489	-	339	361	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	78.1	30.9	0.4	0.1
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	785	-	-	136	161	920	-	-
HCM Lane V/C Ratio	0.033	-	-	0.704	0.139	0.009	-	-
HCM Control Delay (s)	9.7	-	-	78.1	30.9	8.9	0	-
HCM Lane LOS	A	-	-	F	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	4	0.5	0	-	-

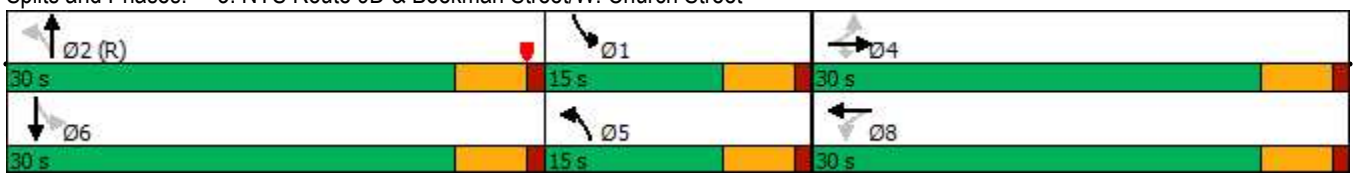


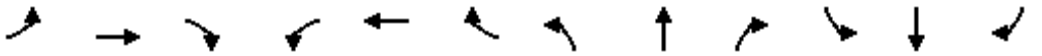
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	163	6	68	10	4	8	103	470	4	8	512	197
Future Volume (vph)	163	6	68	10	4	8	103	470	4	8	512	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98	0.97		0.98		1.00	1.00		1.00	0.99	
Frt			0.850		0.949			0.999			0.958	
Flt Protected		0.954			0.978		0.950			0.950		
Satd. Flow (prot)	0	1759	1567	0	1790	0	1823	1916	0	1743	1744	0
Flt Permitted		0.716			0.856		0.147			0.358		
Satd. Flow (perm)	0	1298	1524	0	1564	0	282	1916	0	655	1744	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		9			1			28	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	11		3	3		11	6		9	9		6
Confl. Bikes (#/hr)			3									
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	183	7	76	11	4	9	116	528	4	9	575	221
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	190	76	0	24	0	116	532	0	9	796	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0		10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				11	11							
v/c Ratio		0.70	0.19		0.07		0.40	0.45		0.02	0.82	
Control Delay		40.6	3.9		16.0		16.7	12.2		7.1	27.1	
Queue Delay		0.0	0.0		0.0		0.0	0.3		0.0	0.0	
Total Delay		40.6	3.9		16.0		16.7	12.5		7.1	27.1	
Queue Length 50th (ft)		83	0		6		21	104		1	280	
Queue Length 95th (ft)		130	18		21		m0	220		7	#641	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		432	576		527		408	1193		590	965	
Starvation Cap Reductn		0	0		0		0	203		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.44	0.13		0.05		0.28	0.54		0.02	0.82	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street

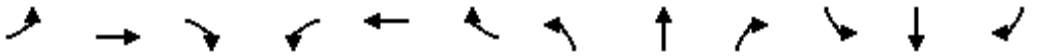




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	6	68	10	4	8	103	470	4	8	512	197
Future Volume (veh/h)	163	6	68	10	4	8	103	470	4	8	512	197
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.95	0.99		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2263	2263	2263	2106	2106	2106	1817	1817	1817
Adj Flow Rate, veh/h	183	7	76	11	4	9	116	528	4	9	575	221
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	328	9	361	107	55	55	547	696	5	576	415	160
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.22	0.33	0.33	0.22	0.33	0.33
Sat Flow, veh/h	969	37	1492	153	226	227	2006	2087	16	1731	1245	479
Grp Volume(v), veh/h	190	0	76	24	0	0	116	0	532	9	0	796
Grp Sat Flow(s),veh/h/ln	1006	0	1492	607	0	0	2006	0	2103	1731	0	1723
Q Serve(g_s), s	0.0	0.0	3.1	0.2	0.0	0.0	0.0	0.0	16.9	0.0	0.0	25.0
Cycle Q Clear(g_c), s	14.7	0.0	3.1	14.9	0.0	0.0	0.0	0.0	16.9	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.46		0.37	1.00		0.01	1.00		0.28
Lane Grp Cap(c), veh/h	337	0	361	217	0	0	547	0	701	576	0	574
V/C Ratio(X)	0.56	0.00	0.21	0.11	0.00	0.00	0.21	0.00	0.76	0.02	0.00	1.39
Avail Cap(c_a), veh/h	464	0	497	379	0	0	547	0	701	576	0	574
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.86	0.00	0.86	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	0.0	22.7	22.8	0.0	0.0	22.5	0.0	22.3	16.9	0.0	25.0
Incr Delay (d2), s/veh	0.6	0.0	0.1	0.1	0.0	0.0	0.1	0.0	6.6	0.0	0.0	184.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	1.0	0.3	0.0	0.0	1.5	0.0	9.1	0.1	0.0	38.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.7	0.0	22.8	22.9	0.0	0.0	22.6	0.0	28.9	16.9	0.0	209.1
LnGrp LOS	C	A	C	C	A	A	C	A	C	B	A	F
Approach Vol, veh/h		266			24			648			805	
Approach Delay, s/veh		26.3			22.9			27.7			207.0	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.9	30.0		23.1	21.9	30.0		23.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	2.0	18.9		16.7	2.0	27.0		16.9				
Green Ext Time (p_c), s	0.0	0.7		0.4	0.0	0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		110.2	
HCM 6th LOS		F	



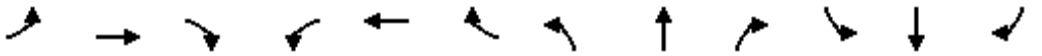
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	2	2	38	0	219	2	357	52	275	320	3
Future Volume (vph)	2	2	2	38	0	219	2	357	52	275	320	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.97		0.99			1.00	
Frt		0.955				0.850		0.981			0.999	
Flt Protected		0.984			0.950		0.950			0.950		
Satd. Flow (prot)	0	1751	0	0	1877	1663	1832	1825	0	1760	1851	0
Flt Permitted		0.898			0.752		0.551			0.370		
Satd. Flow (perm)	0	1598	0	0	1486	1614	1063	1825	0	686	1851	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		3									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			14			6			48			11
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	2%	5%	1%	1%	0%
Adj. Flow (vph)	3	3	3	43	0	246	2	406	59	299	348	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	9	0	0	43	246	2	465	0	299	351	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	40		20	40	40	40	40		40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0	15.0	15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	20.0%	20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0	10.0	10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	14	14		6	6			48				
v/c Ratio		0.04			0.23	0.60	0.00	0.44		0.43	0.24	
Control Delay		20.5			28.9	27.0	6.5	14.8		8.7	5.2	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		20.5			28.9	27.0	6.5	14.8		8.7	5.2	
Queue Length 50th (ft)		3			19	94	0	113		19	22	
Queue Length 95th (ft)		9			36	99	3	#318		m91	m82	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		534			495	416	857	1053		707	1472	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	19		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.02			0.09	0.59	0.00	0.45		0.42	0.24	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	2	38	0	219	2	357	52	275	320	3
Future Volume (veh/h)	2	2	2	38	0	219	2	357	52	275	320	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.96		0.98	0.99		0.95	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2200	2018	1988	1943	1832	1832	1847
Adj Flow Rate, veh/h	3	3	3	43	0	246	2	406	59	299	348	3
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	1	0	2	5	1	1	0
Cap, veh/h	126	120	91	382	0	511	677	881	128	605	1127	10
Arrive On Green	0.18	0.18	0.18	0.18	0.00	0.18	0.00	0.52	0.52	0.10	0.62	0.62
Sat Flow, veh/h	349	679	514	1615	0	1832	1922	1685	245	1745	1814	16
Grp Volume(v), veh/h	9	0	0	43	0	246	2	0	465	299	0	351
Grp Sat Flow(s),veh/h/ln	1543	0	0	1615	0	1832	1922	0	1930	1745	0	1829
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	8.4	0.0	0.0	11.4	5.4	0.0	6.7
Cycle Q Clear(g_c), s	0.3	0.0	0.0	1.6	0.0	8.4	0.0	0.0	11.4	5.4	0.0	6.7
Prop In Lane	0.33		0.33	1.00		1.00	1.00		0.13	1.00		0.01
Lane Grp Cap(c), veh/h	337	0	0	382	0	511	677	0	1010	605	0	1137
V/C Ratio(X)	0.03	0.00	0.00	0.11	0.00	0.48	0.00	0.00	0.46	0.49	0.00	0.31
Avail Cap(c_a), veh/h	565	0	0	633	0	797	930	0	1010	663	0	1137
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.55	0.00	0.55
Uniform Delay (d), s/veh	25.5	0.0	0.0	26.0	0.0	22.6	8.5	0.0	11.2	7.3	0.0	6.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	1.5	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.6	0.0	3.5	0.0	0.0	4.7	1.6	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	0.0	0.0	26.1	0.0	22.9	8.5	0.0	12.8	7.5	0.0	7.0
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		9			289			467			650	
Approach Delay, s/veh		25.5			23.4			12.7			7.2	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.5	44.2		18.3	5.1	51.6		18.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	7.4	13.4		2.3	2.0	8.7		10.4				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		12.5	
HCM 6th LOS		B	



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	2	0	208	264	0
Future Volume (vph)	2	2	0	208	264	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976					
Satd. Flow (prot)	1838	0	0	1977	1909	0
Flt Permitted	0.976					
Satd. Flow (perm)	1838	0	0	1977	1909	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	17	17			14
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	2	2	0	242	307	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	242	307	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	2	0	208	264	0
Future Vol, veh/h	2	2	0	208	264	0
Conflicting Peds, #/hr	14	17	17	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	2	0	242	307	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	580	341	324	0	-	0
Stage 1	324	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	658	771	1236	-	-	-
Stage 1	878	-	-	-	-	-
Stage 2	907	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	638	747	1217	-	-	-
Mov Cap-2 Maneuver	638	-	-	-	-	-
Stage 1	865	-	-	-	-	-
Stage 2	893	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1217	-	688	-	-
HCM Lane V/C Ratio	-	-	0.007	-	-
HCM Control Delay (s)	0	-	10.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	38	8	8	201	256	29
Future Volume (vph)	38	8	8	201	256	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	16	11	12
Grade (%)	0%			2%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.977				0.986	
Flt Protected	0.960			0.998		
Satd. Flow (prot)	1922	0	0	2086	1775	0
Flt Permitted	0.960			0.998		
Satd. Flow (perm)	1922	0	0	2086	1775	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			216	408	
Travel Time (s)	4.5			4.9	9.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	44	9	9	234	298	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	0	0	243	332	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.86	1.04	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1.2

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	38	8	8	201	256	29
Future Vol, veh/h	38	8	8	201	256	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	9	9	234	298	34

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	567	315	332	0	-	0
Stage 1	315	-	-	-	-	-
Stage 2	252	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	485	725	1227	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	481	725	1227	-	-	-
Mov Cap-2 Maneuver	481	-	-	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	790	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	12.9	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1227	-	511	-	-
HCM Lane V/C Ratio	0.008	-	0.105	-	-
HCM Control Delay (s)	8	0	12.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	79	0	18	108	0	9
Future Volume (vph)	79	0	18	108	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	13	9	12
Grade (%)	-5%			3%	3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.993		
Satd. Flow (prot)	1973	0	0	1883	1428	0
Flt Permitted				0.993		
Satd. Flow (perm)	1973	0	0	1883	1428	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	341			103	156	
Travel Time (s)	7.8			2.3	3.5	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	92	0	21	126	0	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	92	0	0	147	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	9	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.93	0.97	1.02	0.98	1.17	1.02
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	79	0	18	108	0	9
Future Vol, veh/h	79	0	18	108	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	3	3	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	0	21	126	0	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	92	0	260	92
Stage 1	-	-	-	-	92	-
Stage 2	-	-	-	-	168	-
Critical Hdwy	-	-	4.12	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1503	-	698	958
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	838	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1503	-	688	958
Mov Cap-2 Maneuver	-	-	-	-	688	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	825	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	8.8
HCM LOS			A

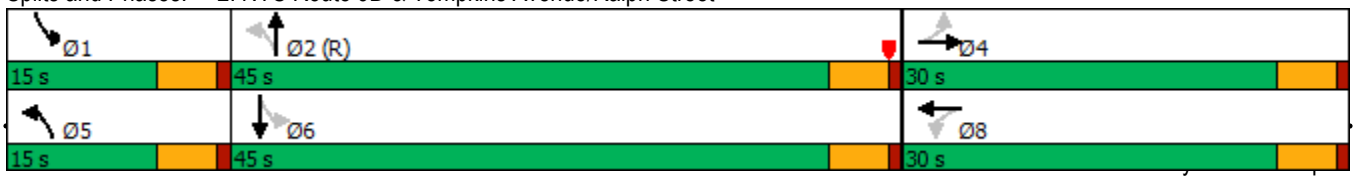
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	958	-	-	1503	-
HCM Lane V/C Ratio	0.011	-	-	0.014	-
HCM Control Delay (s)	8.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

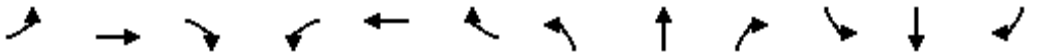
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	4	38	9	0	9	20	542	6	2	727	54
Future Volume (vph)	76	4	38	9	0	9	20	542	6	2	727	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.96			1.00			1.00	
Frt		0.956			0.932			0.998			0.990	
Flt Protected		0.969			0.976		0.950			0.950		
Satd. Flow (prot)	0	1783	0	0	1617	0	1770	1848	0	1814	1902	0
Flt Permitted		0.794			0.870		0.250			0.400		
Satd. Flow (perm)	0	1445	0	0	1420	0	466	1848	0	764	1902	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			85			1			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		8	14		12	8		14	12		6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	4%	13%	2%	2%	2%	6%	2%	2%	4%	11%
Adj. Flow (vph)	80	4	40	9	0	9	21	571	6	2	765	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	124	0	0	18	0	21	577	0	2	822	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Number of Detectors	1	2		1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41		41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1		1	1		1	1	
Detector 2 Size(ft)		40			40		40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0		15.0	45.0		15.0	45.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		16.7%	50.0%		16.7%	50.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0		10.0	40.0		10.0	40.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Walk Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	8	8		12	12			14			6	
v/c Ratio		0.64			0.07		0.05	0.42		0.00	0.59	
Control Delay		44.0			0.6		3.5	6.4		3.5	10.0	
Queue Delay		0.0			0.0		0.0	1.7		0.0	0.0	
Total Delay		44.0			0.6		3.5	8.1		3.5	10.0	
Queue Length 50th (ft)		54			0		2	85		0	147	
Queue Length 95th (ft)		104			0		9	250		2	439	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		420			455		503	1387		705	1388	
Starvation Cap Reductn		0			0		0	610		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.30			0.04		0.04	0.74		0.00	0.59	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: NYS Route 9D & Tompkins Avenue/Ralph Street

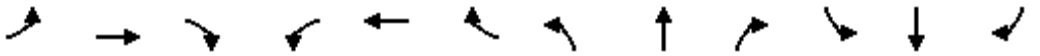




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	4	38	9	0	9	20	542	6	2	727	54
Future Volume (veh/h)	76	4	38	9	0	9	20	542	6	2	727	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.94		0.97	0.98		0.94	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2027	2108	1997	1707	1945	1870	1870	1884	1870	2067	2118	1932
Adj Flow Rate, veh/h	80	4	40	9	0	9	21	571	6	2	765	57
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	4	13	2	2	2	6	2	2	4	11
Cap, veh/h	175	16	60	137	19	95	446	1333	14	629	1371	102
Arrive On Green	0.12	0.12	0.12	0.12	0.00	0.12	0.01	0.72	0.72	0.00	0.70	0.70
Sat Flow, veh/h	947	142	519	668	162	830	1781	1860	20	1968	1946	145
Grp Volume(v), veh/h	124	0	0	18	0	0	21	0	577	2	0	822
Grp Sat Flow(s),veh/h/ln	1608	0	0	1660	0	0	1781	0	1880	1968	0	2091
Q Serve(g_s), s	5.7	0.0	0.0	0.0	0.0	0.0	0.3	0.0	11.3	0.0	0.0	17.2
Cycle Q Clear(g_c), s	6.6	0.0	0.0	0.8	0.0	0.0	0.3	0.0	11.3	0.0	0.0	17.2
Prop In Lane	0.65		0.32	0.50		0.50	1.00		0.01	1.00		0.07
Lane Grp Cap(c), veh/h	251	0	0	251	0	0	446	0	1347	629	0	1473
V/C Ratio(X)	0.49	0.00	0.00	0.07	0.00	0.00	0.05	0.00	0.43	0.00	0.00	0.56
Avail Cap(c_a), veh/h	507	0	0	489	0	0	620	0	1347	844	0	1473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.94	0.00	0.94	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.1	0.0	0.0	35.6	0.0	0.0	5.3	0.0	5.2	4.5	0.0	6.5
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	0.4	0.0	0.0	0.1	0.0	3.8	0.0	0.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	0.0	0.0	35.7	0.0	0.0	5.3	0.0	6.1	4.5	0.0	8.0
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		124			18			598			824	
Approach Delay, s/veh		38.6			35.7			6.1			8.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	69.5		15.4	6.2	68.4		15.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	40.0		25.0	10.0	40.0		25.0				
Max Q Clear Time (g_c+I1), s	2.0	13.3		8.6	2.3	19.2		2.8				
Green Ext Time (p_c), s	0.0	1.2		0.2	0.0	2.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		10.0	
HCM 6th LOS		B	



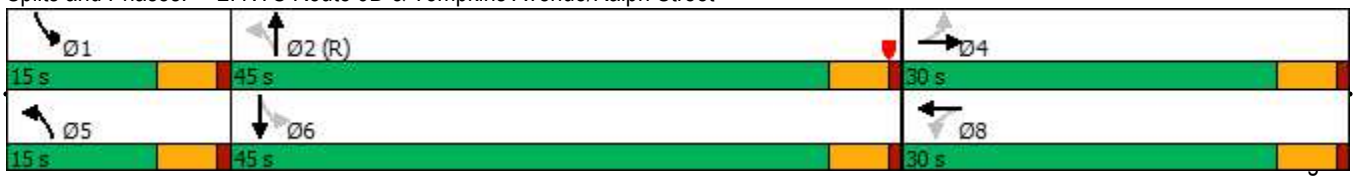
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	6	19	7	4	5	27	705	6	6	654	81
Future Volume (vph)	53	6	19	7	4	5	27	705	6	6	654	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.99			1.00			1.00	
Frt		0.967			0.960			0.999			0.983	
Flt Protected		0.967			0.977		0.950			0.950		
Satd. Flow (prot)	0	1823	0	0	1681	0	1770	1922	0	1814	1917	0
Flt Permitted		0.787			0.886		0.257			0.299		
Satd. Flow (perm)	0	1476	0	0	1522	0	479	1922	0	571	1917	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			5			1			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	4		4	2		2	4		2	2		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	25%	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	58	7	21	8	4	5	29	766	7	7	711	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	17	0	29	773	0	7	799	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Number of Detectors	1	2		1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41		41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1		1	1		1	1	
Detector 2 Size(ft)		40			40		40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

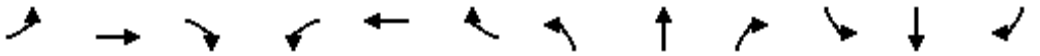
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0		15.0	45.0		15.0	45.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		16.7%	50.0%		16.7%	50.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0		10.0	40.0		10.0	40.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0			8.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0			15.0	
Pedestrian Calls (#/hr)	8	8		12	12			14			6	
v/c Ratio		0.45			0.09		0.07	0.51		0.01	0.56	
Control Delay		34.7			26.0		2.8	5.2		4.7	11.2	
Queue Delay		0.0			0.0		0.0	0.3		0.0	0.8	
Total Delay		34.7			26.0		2.8	5.5		4.7	12.0	
Queue Length 50th (ft)		37			6		1	33		1	203	
Queue Length 95th (ft)		69			21		m6	307		6	516	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		423			426		522	1503		590	1420	
Starvation Cap Reductn		0			0		0	267		0	0	
Spillback Cap Reductn		2			0		0	0		0	316	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.20			0.04		0.06	0.63		0.01	0.72	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 55
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: NYS Route 9D & Tompkins Avenue/Ralph Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	6	19	7	4	5	27	705	6	6	654	81
Future Volume (veh/h)	53	6	19	7	4	5	27	705	6	6	654	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2027	2108	2027	1870	1945	1530	1870	1945	1870	2067	2134	2067
Adj Flow Rate, veh/h	58	7	21	8	4	5	29	766	7	7	711	88
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	25	2	2	2	2	3	2
Cap, veh/h	152	18	33	106	53	42	500	1438	13	656	1369	169
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.03	1.00	1.00	0.01	0.74	0.74
Sat Flow, veh/h	1050	221	410	582	653	515	1781	1924	18	1968	1861	230
Grp Volume(v), veh/h	86	0	0	17	0	0	29	0	773	7	0	799
Grp Sat Flow(s),veh/h/ln	1681	0	0	1750	0	0	1781	0	1942	1968	0	2091
Q Serve(g_s), s	3.6	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.1	0.0	14.7
Cycle Q Clear(g_c), s	4.4	0.0	0.0	0.8	0.0	0.0	0.4	0.0	0.0	0.1	0.0	14.7
Prop In Lane	0.67		0.24	0.47		0.29	1.00		0.01	1.00		0.11
Lane Grp Cap(c), veh/h	203	0	0	200	0	0	500	0	1451	656	0	1538
V/C Ratio(X)	0.42	0.00	0.00	0.08	0.00	0.00	0.06	0.00	0.53	0.01	0.00	0.52
Avail Cap(c_a), veh/h	526	0	0	511	0	0	667	0	1451	865	0	1538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.89	0.00	0.89	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.0	0.0	0.0	38.4	0.0	0.0	4.0	0.0	0.0	3.0	0.0	5.1
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.3	0.0	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.5	0.0	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.5	0.0	0.0	38.4	0.0	0.0	4.0	0.0	1.3	3.0	0.0	6.4
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		86			17			802			806	
Approach Delay, s/veh		40.5			38.4			1.4			6.3	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	72.3		12.3	6.5	71.2		12.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	40.0		25.0	10.0	40.0		25.0				
Max Q Clear Time (g_c+I1), s	2.1	2.0		6.4	2.4	16.7		2.8				
Green Ext Time (p_c), s	0.0	1.8		0.1	0.0	1.9		0.0				

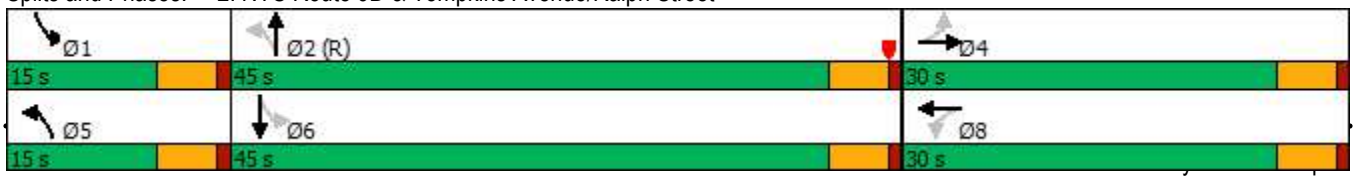
Intersection Summary			
HCM 6th Ctrl Delay		6.0	
HCM 6th LOS		A	

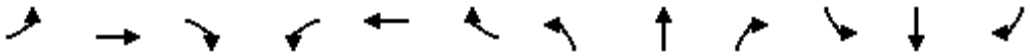
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	2	18	4	6	11	24	607	5	8	690	79
Future Volume (vph)	61	2	18	4	6	11	24	607	5	8	690	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.99			1.00			1.00	
Frt		0.970			0.926			0.999			0.985	
Flt Protected		0.964			0.991		0.950			0.950		
Satd. Flow (prot)	0	1810	0	0	1743	0	1770	1923	0	1814	1937	0
Flt Permitted		0.764			0.942		0.256			0.360		
Satd. Flow (perm)	0	1422	0	0	1656	0	477	1923	0	687	1937	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			12			1			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		6	2		2	6		2	2		6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	65	2	19	4	6	12	26	646	5	9	734	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	22	0	26	651	0	9	818	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41		41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1		1	1		1	1	
Detector 2 Size(ft)		40			40		40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0		15.0	45.0		15.0	45.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		16.7%	50.0%		16.7%	50.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0		10.0	40.0		10.0	40.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0			8.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0			15.0	
Pedestrian Calls (#/hr)	8	8		12	12			14			6	
v/c Ratio		0.46			0.10		0.06	0.43		0.02	0.56	
Control Delay		36.0			21.0		4.4	7.5		4.6	10.5	
Queue Delay		0.0			0.0		0.0	1.3		0.0	0.0	
Total Delay		36.0			21.0		4.4	8.8		4.6	10.5	
Queue Length 50th (ft)		38			5		2	88		1	125	
Queue Length 95th (ft)		70			23		14	363		7	530	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		406			468		520	1500		667	1470	
Starvation Cap Reductn		0			0		0	608		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.21			0.05		0.05	0.73		0.01	0.56	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: NYS Route 9D & Tompkins Avenue/Ralph Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	2	18	4	6	11	24	607	5	8	690	79
Future Volume (veh/h)	61	2	18	4	6	11	24	607	5	8	690	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.98		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2012	2108	2027	1870	1945	1870	1870	1945	1870	2067	2149	2067
Adj Flow Rate, veh/h	65	2	19	4	6	12	26	646	5	9	734	84
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	10	31	59	55	80	484	1428	11	619	1385	158
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.02	0.74	0.74	0.01	0.73	0.73
Sat Flow, veh/h	1172	118	366	134	647	936	1781	1927	15	1968	1893	217
Grp Volume(v), veh/h	86	0	0	22	0	0	26	0	651	9	0	818
Grp Sat Flow(s),veh/h/ln	1656	0	0	1716	0	0	1781	0	1942	1968	0	2109
Q Serve(g_s), s	3.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0	11.8	0.1	0.0	15.3
Cycle Q Clear(g_c), s	4.4	0.0	0.0	1.0	0.0	0.0	0.3	0.0	11.8	0.1	0.0	15.3
Prop In Lane	0.76		0.22	0.18		0.55	1.00		0.01	1.00		0.10
Lane Grp Cap(c), veh/h	212	0	0	194	0	0	484	0	1439	619	0	1543
V/C Ratio(X)	0.41	0.00	0.00	0.11	0.00	0.00	0.05	0.00	0.45	0.01	0.00	0.53
Avail Cap(c_a), veh/h	519	0	0	512	0	0	653	0	1439	825	0	1543
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.90	0.00	0.90	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.5	0.0	0.0	38.1	0.0	0.0	4.3	0.0	4.5	3.8	0.0	5.3
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.9	0.0	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.0	0.5	0.0	0.0	0.1	0.0	3.9	0.0	0.0	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	0.0	0.0	38.2	0.0	0.0	4.3	0.0	5.5	3.8	0.0	6.6
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		86			22			677			827	
Approach Delay, s/veh		40.0			38.2			5.4			6.6	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	71.7		12.7	6.4	70.9		12.7				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	40.0		25.0	10.0	40.0		25.0				
Max Q Clear Time (g_c+I1), s	2.1	13.8		6.4	2.3	17.3		3.0				
Green Ext Time (p_c), s	0.0	1.4		0.1	0.0	2.0		0.0				

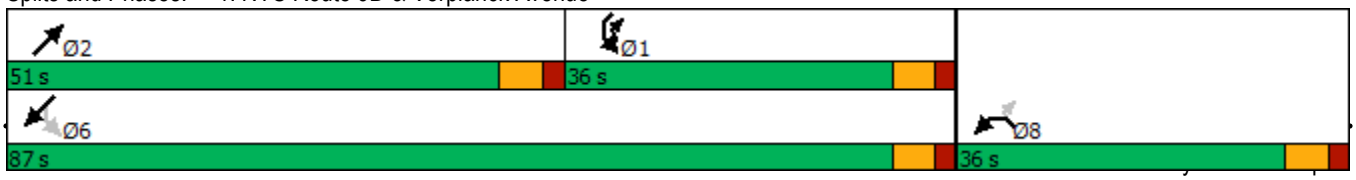
Intersection Summary			
HCM 6th Ctrl Delay		8.3	
HCM 6th LOS		A	

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	68	293	595	54	291	722
Future Volume (vph)	68	293	595	54	291	722
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		1.00			
Frt		0.850	0.989			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1811	0	1778	1854
Flt Permitted	0.950				0.232	
Satd. Flow (perm)	1715	1544	1811	0	434	1854
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	2			1	1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%
Adj. Flow (vph)	72	308	626	57	306	760
Shared Lane Traffic (%)						
Lane Group Flow (vph)	72	308	683	0	306	760
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.39	0.56	0.75		0.49	0.51
Control Delay	45.7	26.0	27.5		14.1	6.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	45.7	26.0	27.5		14.1	6.1
Queue Length 50th (ft)	40	136	299		37	129
Queue Length 95th (ft)	88	208	#692		100	328
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	595	624	937		847	1640
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.12	0.49	0.73		0.36	0.46

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 89.5	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue



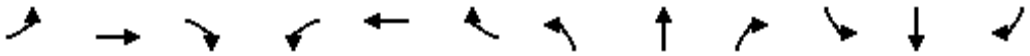


Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	68	293	595	54	291	722	
Future Volume (veh/h)	68	293	595	54	291	722	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1894	
Adj Flow Rate, veh/h	72	308	626	57	306	760	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	3	
Cap, veh/h	224	365	715	65	373	1239	
Arrive On Green	0.14	0.14	0.44	0.44	0.11	0.65	
Sat Flow, veh/h	1641	1460	1641	149	1818	1894	
Grp Volume(v), veh/h	72	308	0	683	306	760	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1790	1818	1894	
Q Serve(g_s), s	2.3	5.0	0.0	20.0	4.0	13.3	
Cycle Q Clear(g_c), s	2.3	5.0	0.0	20.0	4.0	13.3	
Prop In Lane	1.00	1.00		0.08	1.00		
Lane Grp Cap(c), veh/h	224	365	0	781	373	1239	
V/C Ratio(X)	0.32	0.84	0.00	0.88	0.82	0.61	
Avail Cap(c_a), veh/h	859	930	0	1405	1118	2676	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	22.4	20.4	0.0	14.7	23.0	5.7	
Incr Delay (d2), s/veh	0.3	2.1	0.0	3.3	1.7	0.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.8	3.7	0.0	7.4	3.8	3.5	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.7	22.5	0.0	18.0	24.7	6.2	
LnGrp LOS	C	C	A	B	C	A	
Approach Vol, veh/h	380		683			1066	
Approach Delay, s/veh	22.5		18.0			11.5	
Approach LOS	C		B			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.5	31.0				43.5	13.8
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	6.0	22.0				15.3	7.0
Green Ext Time (p_c), s	0.6	3.0				3.7	0.9

Intersection Summary		
HCM 6th Ctrl Delay	15.6	
HCM 6th LOS	B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	4	38	9	0	9	20	555	6	2	730	65
Future Volume (vph)	85	4	38	9	0	9	20	555	6	2	730	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.97			1.00		0.99	1.00	
Frt		0.959			0.932			0.998			0.988	
Flt Protected		0.968			0.976		0.950			0.950		
Satd. Flow (prot)	0	1793	0	0	1626	0	1770	1848	0	1814	1897	0
Flt Permitted		0.788			0.883		0.229			0.385		
Satd. Flow (perm)	0	1448	0	0	1455	0	427	1848	0	731	1897	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			85			1			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		8	14		12	8		14	12		6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	4%	13%	2%	2%	2%	6%	2%	2%	4%	11%
Adj. Flow (vph)	89	4	40	9	0	9	21	584	6	2	768	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	18	0	21	590	0	2	836	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Number of Detectors	1	2		1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41		41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1		1	1		1	1	
Detector 2 Size(ft)		40			40		40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

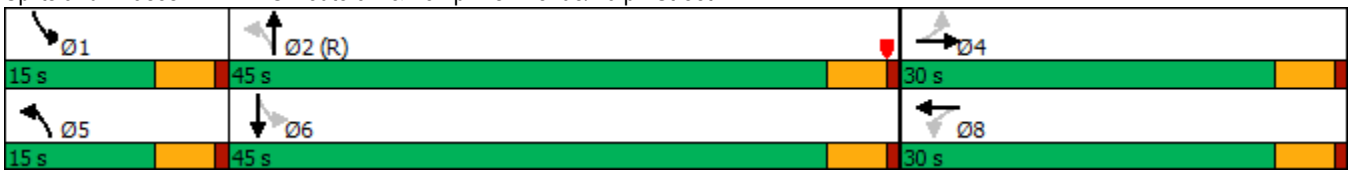


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0		15.0	45.0		15.0	45.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		16.7%	50.0%		16.7%	50.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0		10.0	40.0		10.0	40.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0			8.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0			15.0	
Pedestrian Calls (#/hr)	8	8		12	12			14			6	
v/c Ratio		0.60			0.07		0.06	0.44		0.00	0.62	
Control Delay		39.3			0.5		4.8	6.4		5.0	12.7	
Queue Delay		0.0			0.0		0.0	0.2		0.0	3.1	
Total Delay		39.3			0.5		4.8	6.5		5.0	15.8	
Queue Length 50th (ft)		60			0		2	95		0	158	
Queue Length 95th (ft)		102			0		m11	174		3	#625	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		419			465		469	1348		668	1343	
Starvation Cap Reductn		0			0		0	178		0	0	
Spillback Cap Reductn		4			17		0	0		0	390	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.32			0.04		0.04	0.50		0.00	0.88	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: NYS Route 9D & Tompkins Avenue/Ralph Street

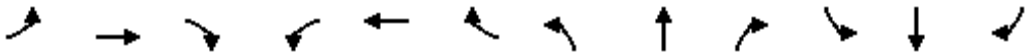


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	4	38	9	0	9	20	555	6	2	730	65
Future Volume (veh/h)	85	4	38	9	0	9	20	555	6	2	730	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.95		0.97	0.98		0.95	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2027	2108	1997	1707	1945	1870	1870	1884	1870	2067	2118	1932
Adj Flow Rate, veh/h	89	4	40	9	0	9	21	584	6	2	768	68
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	4	13	2	2	2	6	2	2	4	11
Cap, veh/h	200	21	66	153	19	112	413	1293	13	704	1308	116
Arrive On Green	0.14	0.14	0.14	0.14	0.00	0.14	0.03	1.00	1.00	0.00	0.68	0.68
Sat Flow, veh/h	976	153	486	679	139	818	1781	1861	19	1968	1916	170
Grp Volume(v), veh/h	133	0	0	18	0	0	21	0	590	2	0	836
Grp Sat Flow(s),veh/h/ln	1615	0	0	1636	0	0	1781	0	1880	1968	0	2086
Q Serve(g_s), s	5.9	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	19.1
Cycle Q Clear(g_c), s	6.9	0.0	0.0	0.8	0.0	0.0	0.3	0.0	0.0	0.0	0.0	19.1
Prop In Lane	0.67		0.30	0.50		0.50	1.00		0.01	1.00		0.08
Lane Grp Cap(c), veh/h	288	0	0	284	0	0	413	0	1306	704	0	1424
V/C Ratio(X)	0.46	0.00	0.00	0.06	0.00	0.00	0.05	0.00	0.45	0.00	0.00	0.59
Avail Cap(c_a), veh/h	511	0	0	491	0	0	587	0	1306	919	0	1424
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.92	0.00	0.92	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.4	0.0	0.0	33.9	0.0	0.0	6.2	0.0	0.0	4.5	0.0	7.6
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.4	0.0	0.0	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	0.0	0.0	33.9	0.0	0.0	6.2	0.0	1.0	4.5	0.0	9.3
LnGrp LOS	D	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		133			18			611			838	
Approach Delay, s/veh		36.8			33.9			1.2			9.3	
Approach LOS		D			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	67.5		17.3	6.2	66.5		17.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	40.0		25.0	10.0	40.0		25.0				
Max Q Clear Time (g_c+I1), s	2.0	2.0		8.9	2.3	21.1		2.8				
Green Ext Time (p_c), s	0.0	1.3		0.2	0.0	2.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		8.8	
HCM 6th LOS		A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	5	63	9	10	17	36	449	3	3	520	254
Future Volume (vph)	123	5	63	9	10	17	36	449	3	3	520	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.98		0.98		1.00	1.00		0.99	0.99	
Frt			0.850		0.938			0.999			0.951	
Flt Protected		0.954			0.987		0.950			0.950		
Satd. Flow (prot)	0	1713	1494	0	1785	0	1754	1844	0	1743	1693	0
Flt Permitted		0.954			0.987		0.129			0.429		
Satd. Flow (perm)	0	1710	1459	0	1783	0	238	1844	0	782	1693	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					18						29	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	1		2	2		1	7		14	14		7
Confl. Bikes (#/hr)						1			1			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	25%	7%	2%	2%	2%	6%	6%	2%	2%	5%	2%
Adj. Flow (vph)	132	5	68	10	11	18	39	483	3	3	559	273
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	137	68	0	39	0	39	486	0	3	832	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

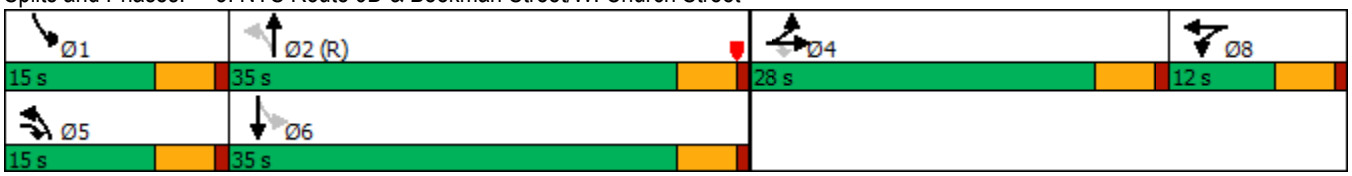


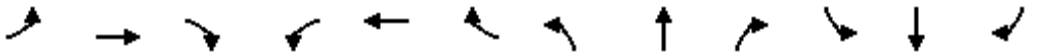
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Split	NA	pm+ov	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	4	4	5	8	8		5	2		1	6	
Permitted Phases			4				2			6		
Detector Phase	4	4	5	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	3.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	8.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	28.0	28.0	15.0	12.0	12.0		15.0	35.0		15.0	35.0	
Total Split (%)	31.1%	31.1%	16.7%	13.3%	13.3%		16.7%	38.9%		16.7%	38.9%	
Maximum Green (s)	23.0	23.0	10.0	7.0	7.0		10.0	30.0		10.0	30.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag			Lead				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	1.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)	8.0	8.0										
Flash Dont Walk (s)	15.0	15.0										
Pedestrian Calls (#/hr)	2	2										
v/c Ratio		0.55	0.24		0.29		0.17	0.41		0.01	0.84	
Control Delay		42.9	20.6		31.4		9.1	9.1		6.7	22.9	
Queue Delay		0.0	0.0		0.0		0.0	0.2		0.0	0.0	
Total Delay		42.9	20.6		31.4		9.1	9.3		6.7	22.9	
Queue Length 50th (ft)		75	26		12		7	93		0	401	
Queue Length 95th (ft)		114	40		42		m19	156		m0	#804	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		437	377		155		327	1194		627	994	
Starvation Cap Reductn		0	0		0		0	199		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.31	0.18		0.25		0.12	0.49		0.00	0.84	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	5	63	9	10	17	36	449	3	3	520	254
Future Volume (veh/h)	123	5	63	9	10	17	36	449	3	3	520	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1817	1506	1773	2263	2263	2263	2046	2046	2106	1817	1773	1817
Adj Flow Rate, veh/h	132	5	68	10	11	18	39	483	3	3	559	273
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	25	7	2	2	2	6	6	2	2	5	2
Cap, veh/h	168	6	212	18	20	32	263	1258	8	524	668	326
Arrive On Green	0.12	0.12	0.12	0.03	0.03	0.03	0.02	0.62	0.62	0.00	0.60	0.60
Sat Flow, veh/h	1384	52	1490	518	569	932	1948	2031	13	1731	1111	543
Grp Volume(v), veh/h	137	0	68	39	0	0	39	0	486	3	0	832
Grp Sat Flow(s),veh/h/ln	1437	0	1490	2019	0	0	1948	0	2043	1731	0	1654
Q Serve(g_s), s	8.3	0.0	3.7	1.7	0.0	0.0	0.7	0.0	10.7	0.1	0.0	36.3
Cycle Q Clear(g_c), s	8.3	0.0	3.7	1.7	0.0	0.0	0.7	0.0	10.7	0.1	0.0	36.3
Prop In Lane	0.96		1.00	0.26		0.46	1.00		0.01	1.00		0.33
Lane Grp Cap(c), veh/h	174	0	212	70	0	0	263	0	1266	524	0	994
V/C Ratio(X)	0.79	0.00	0.32	0.56	0.00	0.00	0.15	0.00	0.38	0.01	0.00	0.84
Avail Cap(c_a), veh/h	367	0	412	157	0	0	439	0	1266	712	0	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.91	0.00	0.91	0.74	0.00	0.74
Uniform Delay (d), s/veh	38.4	0.0	34.7	42.8	0.0	0.0	14.3	0.0	8.6	7.5	0.0	14.4
Incr Delay (d2), s/veh	3.0	0.0	0.3	2.6	0.0	0.0	0.1	0.0	0.8	0.0	0.0	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	1.3	0.9	0.0	0.0	0.3	0.0	4.5	0.0	0.0	13.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	0.0	35.0	45.3	0.0	0.0	14.4	0.0	9.4	7.5	0.0	20.7
LnGrp LOS	D	A	D	D	A	A	B	A	A	A	A	C
Approach Vol, veh/h		205			39			525			835	
Approach Delay, s/veh		39.3			45.3			9.7			20.7	
Approach LOS		D			D			A			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	60.8		15.9	6.9	59.1		8.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	30.0		23.0	10.0	30.0		7.0				
Max Q Clear Time (g_c+I1), s	2.1	12.7		10.3	2.7	38.3		3.7				
Green Ext Time (p_c), s	0.0	0.9		0.3	0.0	0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		20.1	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	5	3	21	7	122	5	362	38	260	336	6
Future Volume (vph)	4	5	3	21	7	122	5	362	38	260	336	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.95		0.99			1.00	
Frt		0.966				0.850		0.986			0.997	
Flt Protected		0.983			0.964		0.950			0.950		
Satd. Flow (prot)	0	1778	0	0	1905	1647	1832	1848	0	1743	1847	0
Flt Permitted		0.907			0.785		0.532			0.362		
Satd. Flow (perm)	0	1641	0	0	1551	1566	1026	1848	0	664	1847	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		5									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			9			15			21			12
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	2%	5%	2%	1%	0%
Adj. Flow (vph)	7	8	5	23	8	134	6	458	48	295	382	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	31	134	6	506	0	295	389	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	1	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

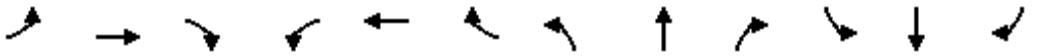
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	35.0	35.0		35.0	35.0	15.0	15.0	40.0		15.0	40.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%	16.7%	16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	30.0	30.0		30.0	30.0	10.0	10.0	35.0		10.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	15	15		15	15			21				
v/c Ratio		0.09			0.14	0.35	0.01	0.44		0.45	0.26	
Control Delay		23.7			31.0	24.8	7.0	15.3		9.0	5.6	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.3	
Total Delay		23.7			31.0	24.8	7.0	15.3		9.0	5.9	
Queue Length 50th (ft)		8			17	63	1	124		16	22	
Queue Length 95th (ft)		15			36	73	5	287		m95	m99	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		550			517	400	838	1143		670	1473	
Starvation Cap Reductn		0			0	0	0	0		0	574	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.04			0.06	0.34	0.01	0.44		0.44	0.43	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 45
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	5	3	21	7	122	5	362	38	260	336	6
Future Volume (veh/h)	4	5	3	21	7	122	5	362	38	260	336	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.94	0.97		0.94	0.99		0.96	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2185	2018	1988	1943	1817	1832	1847
Adj Flow Rate, veh/h	7	8	5	23	8	134	6	458	48	295	382	7
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	2	0	2	5	2	1	0
Cap, veh/h	104	109	53	232	74	383	742	1091	114	639	1246	23
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.00	0.62	0.62	0.08	0.69	0.69
Sat Flow, veh/h	376	811	395	1213	550	1748	1922	1762	185	1731	1793	33
Grp Volume(v), veh/h	20	0	0	31	0	134	6	0	506	295	0	389
Grp Sat Flow(s),veh/h/ln	1582	0	0	1762	0	1748	1922	0	1946	1731	0	1826
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	5.9	0.1	0.0	12.0	5.1	0.0	7.4
Cycle Q Clear(g_c), s	0.9	0.0	0.0	1.2	0.0	5.9	0.1	0.0	12.0	5.1	0.0	7.4
Prop In Lane	0.35		0.25	0.74		1.00	1.00		0.09	1.00		0.02
Lane Grp Cap(c), veh/h	266	0	0	306	0	383	742	0	1205	639	0	1268
V/C Ratio(X)	0.08	0.00	0.00	0.10	0.00	0.35	0.01	0.00	0.42	0.46	0.00	0.31
Avail Cap(c_a), veh/h	565	0	0	650	0	731	947	0	1205	692	0	1268
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.51	0.00	0.51
Uniform Delay (d), s/veh	34.1	0.0	0.0	34.2	0.0	30.1	6.4	0.0	8.8	5.9	0.0	5.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0	1.1	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.6	0.0	2.5	0.0	0.0	4.9	1.4	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.2	0.0	0.0	34.3	0.0	30.3	6.4	0.0	9.9	6.0	0.0	5.6
LnGrp LOS	C	A	A	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		20			165			512			684	
Approach Delay, s/veh		34.2			31.0			9.9			5.8	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	60.7		17.1	5.4	67.5		17.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	35.0		30.0	10.0	35.0		30.0				
Max Q Clear Time (g_c+I1), s	7.1	14.0		2.9	2.1	9.4		7.9				
Green Ext Time (p_c), s	0.1	0.4		0.0	0.0	0.3		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		10.7	
HCM 6th LOS		B	

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	2	2	163	289	0
Future Volume (vph)	2	2	2	163	289	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976			0.999		
Satd. Flow (prot)	1838	0	0	1938	1909	0
Flt Permitted	0.976			0.999		
Satd. Flow (perm)	1838	0	0	1938	1909	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	16	16			14
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%
Adj. Flow (vph)	3	3	3	206	366	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	209	366	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	2	2	163	289	0
Future Vol, veh/h	2	2	2	163	289	0
Conflicting Peds, #/hr	14	16	16	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	4	2	2
Mvmt Flow	3	3	3	206	366	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	608	398	382	0	-	0
Stage 1	382	-	-	-	-	-
Stage 2	226	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	643	728	1176	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	920	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	623	706	1159	-	-	-
Mov Cap-2 Maneuver	623	-	-	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	907	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.5	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1159	-	662	-	-
HCM Lane V/C Ratio	0.002	-	0.008	-	-
HCM Control Delay (s)	8.1	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	31	7	5	159	282	17
Future Volume (vph)	31	7	5	159	282	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	16	11	12
Grade (%)	0%			2%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.975				0.992	
Flt Protected	0.961			0.999		
Satd. Flow (prot)	1920	0	0	2049	1786	0
Flt Permitted	0.961			0.999		
Satd. Flow (perm)	1920	0	0	2049	1786	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			216	408	
Travel Time (s)	4.5			4.9	9.3	
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%
Adj. Flow (vph)	39	9	6	201	357	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	48	0	0	207	379	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.86	1.04	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	31	7	5	159	282	17
Future Vol, veh/h	31	7	5	159	282	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	4	2	2
Mvmt Flow	39	9	6	201	357	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	581	368	379	0	-	0
Stage 1	368	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	476	677	1179	-	-	-
Stage 1	700	-	-	-	-	-
Stage 2	823	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	473	677	1179	-	-	-
Mov Cap-2 Maneuver	473	-	-	-	-	-
Stage 1	696	-	-	-	-	-
Stage 2	823	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	12.9	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1179	-	501	-	-
HCM Lane V/C Ratio	0.005	-	0.096	-	-
HCM Control Delay (s)	8.1	0	12.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	116	0	11	74	0	9
Future Volume (vph)	116	0	11	74	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	13	9	12
Grade (%)	-5%			3%	3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.994		
Satd. Flow (prot)	1973	0	0	1885	1428	0
Flt Permitted				0.994		
Satd. Flow (perm)	1973	0	0	1885	1428	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	341			103	156	
Travel Time (s)	7.8			2.3	3.5	
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Adj. Flow (vph)	147	0	14	94	0	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	147	0	0	108	11	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	9	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.93	0.97	1.02	0.98	1.17	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	116	0	11	74	0	9
Future Vol, veh/h	116	0	11	74	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	3	3	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	147	0	14	94	0	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	147	0	269	147
Stage 1	-	-	-	-	147	-
Stage 2	-	-	-	-	122	-
Critical Hdwy	-	-	4.12	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1435	-	689	889
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	885	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1435	-	682	889
Mov Cap-2 Maneuver	-	-	-	-	682	-
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	876	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	9.1
HCM LOS			A

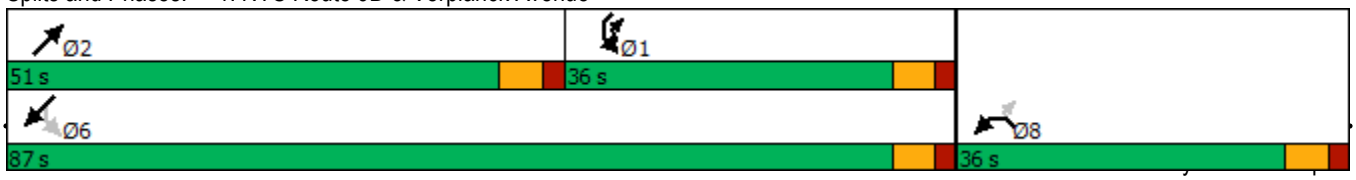
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	889	-	-	1435	-
HCM Lane V/C Ratio	0.013	-	-	0.01	-
HCM Control Delay (s)	9.1	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	71	345	731	61	233	714
Future Volume (vph)	71	345	731	61	233	714
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		1.00			
Frt		0.850	0.990			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1813	0	1778	1854
Flt Permitted	0.950				0.109	
Satd. Flow (perm)	1720	1544	1813	0	204	1854
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	1			3	3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%
Adj. Flow (vph)	75	363	769	64	245	752
Shared Lane Traffic (%)						
Lane Group Flow (vph)	75	363	833	0	245	752
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.41	0.62	0.93		0.46	0.50
Control Delay	48.0	27.6	44.4		21.2	6.0
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	48.0	27.6	44.4		21.2	6.0
Queue Length 50th (ft)	43	168	458		49	129
Queue Length 95th (ft)	92	251	#954		144	320
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	565	639	892		692	1597
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.13	0.57	0.93		0.35	0.47

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 93.4	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue

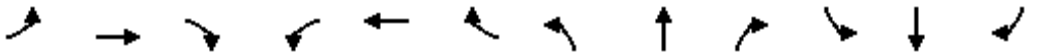




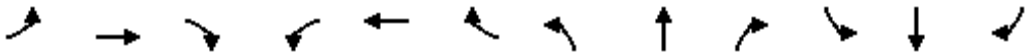
Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	71	345	731	61	233	714	
Future Volume (veh/h)	71	345	731	61	233	714	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1894	
Adj Flow Rate, veh/h	75	363	769	64	245	752	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	3	
Cap, veh/h	292	404	821	68	293	1271	
Arrive On Green	0.18	0.18	0.50	0.50	0.10	0.67	
Sat Flow, veh/h	1641	1460	1654	138	1818	1894	
Grp Volume(v), veh/h	75	363	0	833	245	752	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1792	1818	1894	
Q Serve(g_s), s	3.1	11.1	0.0	34.7	5.4	17.2	
Cycle Q Clear(g_c), s	3.1	11.1	0.0	34.7	5.4	17.2	
Prop In Lane	1.00	1.00		0.08	1.00		
Lane Grp Cap(c), veh/h	292	404	0	889	293	1271	
V/C Ratio(X)	0.26	0.90	0.00	0.94	0.84	0.59	
Avail Cap(c_a), veh/h	621	697	0	1018	802	1936	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	28.1	27.6	0.0	18.8	33.2	7.1	
Incr Delay (d2), s/veh	0.2	4.2	0.0	14.3	2.4	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.2	3.6	0.0	16.3	4.6	5.6	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	28.2	31.8	0.0	33.1	35.7	7.6	
LnGrp LOS	C	C	A	C	D	A	
Approach Vol, veh/h	438		833			997	
Approach Delay, s/veh	31.2		33.1			14.5	
Approach LOS	C		C			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	13.8	45.3				59.2	20.1
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	7.4	36.7				19.2	13.1
Green Ext Time (p_c), s	0.5	2.6				3.7	1.0

Intersection Summary		
HCM 6th Ctrl Delay		24.6
HCM 6th LOS		C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	6	19	7	4	5	27	721	6	6	660	100
Future Volume (vph)	63	6	19	7	4	5	27	721	6	6	660	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.99			1.00			1.00	
Frt		0.970			0.960			0.999			0.980	
Flt Protected		0.966			0.977		0.950			0.950		
Satd. Flow (prot)	0	1829	0	0	1681	0	1770	1923	0	1814	1910	0
Flt Permitted		0.779			0.889		0.241			0.287		
Satd. Flow (perm)	0	1467	0	0	1527	0	449	1923	0	548	1910	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			5			1			11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	4		4	2		2	4		2	2		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	25%	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	68	7	21	8	4	5	29	784	7	7	717	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	96	0	0	17	0	29	791	0	7	826	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Number of Detectors	1	2		1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41		41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1		1	1		1	1	
Detector 2 Size(ft)		40			40		40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

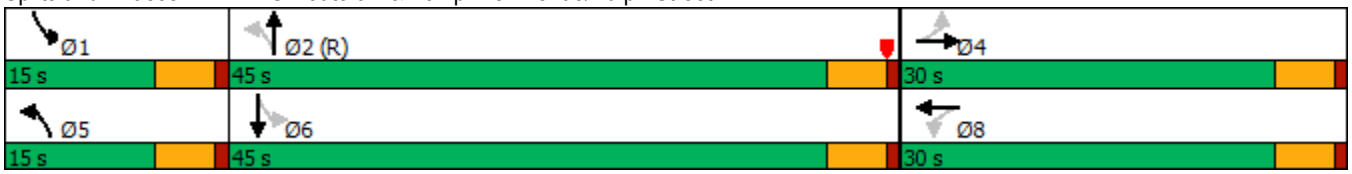


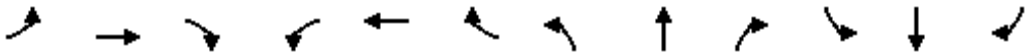
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0		15.0	45.0		15.0	45.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		16.7%	50.0%		16.7%	50.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0		10.0	40.0		10.0	40.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0			8.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0			15.0	
Pedestrian Calls (#/hr)	8	8		12	12			14			6	
v/c Ratio		0.49			0.09		0.07	0.53		0.02	0.59	
Control Delay		36.7			25.6		4.1	9.9		4.7	12.0	
Queue Delay		0.4			0.1		0.0	0.8		0.0	21.9	
Total Delay		37.1			25.7		4.1	10.6		4.7	34.0	
Queue Length 50th (ft)		44			6		2	71		1	223	
Queue Length 95th (ft)		77			21		m10	602		6	#566	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		419			427		499	1494		571	1405	
Starvation Cap Reductn		0			0		0	382		0	0	
Spillback Cap Reductn		101			100		0	0		0	595	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.30			0.05		0.06	0.71		0.01	1.02	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: NYS Route 9D & Tompkins Avenue/Ralph Street



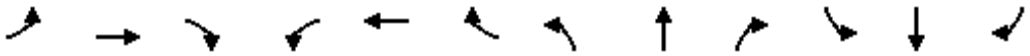


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	6	19	7	4	5	27	721	6	6	660	100
Future Volume (veh/h)	63	6	19	7	4	5	27	721	6	6	660	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2027	2108	2027	1870	1945	1530	1870	1945	1870	2067	2134	2067
Adj Flow Rate, veh/h	68	7	21	8	4	5	29	784	7	7	717	109
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	25	2	2	2	2	3	2
Cap, veh/h	166	16	32	111	56	45	476	1426	13	516	1318	200
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.02	0.74	0.74	0.01	0.73	0.73
Sat Flow, veh/h	1118	188	366	600	642	517	1781	1925	17	1968	1808	275
Grp Volume(v), veh/h	96	0	0	17	0	0	29	0	791	7	0	826
Grp Sat Flow(s),veh/h/ln	1672	0	0	1759	0	0	1781	0	1942	1968	0	2083
Q Serve(g_s), s	4.2	0.0	0.0	0.0	0.0	0.0	0.4	0.0	16.0	0.1	0.0	16.0
Cycle Q Clear(g_c), s	4.9	0.0	0.0	0.8	0.0	0.0	0.4	0.0	16.0	0.1	0.0	16.0
Prop In Lane	0.71		0.22	0.47		0.29	1.00		0.01	1.00		0.13
Lane Grp Cap(c), veh/h	214	0	0	212	0	0	476	0	1438	516	0	1518
V/C Ratio(X)	0.45	0.00	0.00	0.08	0.00	0.00	0.06	0.00	0.55	0.01	0.00	0.54
Avail Cap(c_a), veh/h	526	0	0	513	0	0	643	0	1438	725	0	1518
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.90	0.00	0.90	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.7	0.0	0.0	37.8	0.0	0.0	4.4	0.0	5.1	4.4	0.0	5.5
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0	0.3	0.0	0.0	0.1	0.0	5.4	0.0	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.2	0.0	0.0	37.9	0.0	0.0	4.5	0.0	6.5	4.5	0.0	6.9
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		96			17			820			833	
Approach Delay, s/veh		40.2			37.9			6.4			6.9	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	71.7		12.9	6.5	70.6		12.9				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	40.0		25.0	10.0	40.0		25.0				
Max Q Clear Time (g_c+I1), s	2.1	18.0		6.9	2.4	18.0		2.8				
Green Ext Time (p_c), s	0.0	1.8		0.1	0.0	2.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			8.8									
HCM 6th LOS			A									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	308	13	62	2	8	16	73	430	13	5	531	150
Future Volume (vph)	308	13	62	2	8	16	73	430	13	5	531	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.98		1.00	1.00		1.00	0.99	
Frt			0.850		0.918			0.996			0.967	
Flt Protected		0.954			0.996		0.950			0.950		
Satd. Flow (prot)	0	1759	1567	0	1748	0	1690	1892	0	1743	1749	0
Flt Permitted		0.954			0.996		0.109			0.405		
Satd. Flow (perm)	0	1753	1567	0	1748	0	194	1892	0	742	1749	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					17			2			17	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	2					2	6		2	2		6
Confl. Bikes (#/hr)						1			1			1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	10%	3%	2%	2%	3%	2%
Adj. Flow (vph)	335	14	67	2	9	17	79	467	14	5	577	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	349	67	0	28	0	79	481	0	5	740	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

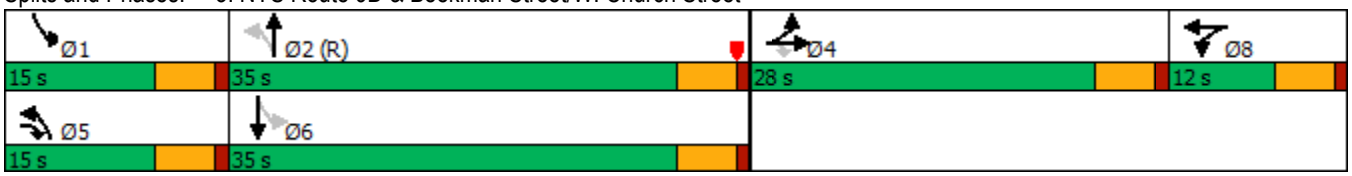


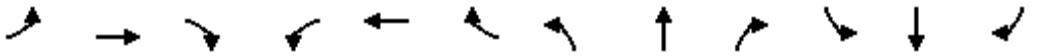
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Split	NA	pm+ov	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	4	4	5	8	8		5	2		1	6	
Permitted Phases			4				2			6		
Detector Phase	4	4	5	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	3.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	8.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	28.0	28.0	15.0	12.0	12.0		15.0	35.0		15.0	35.0	
Total Split (%)	31.1%	31.1%	16.7%	13.3%	13.3%		16.7%	38.9%		16.7%	38.9%	
Maximum Green (s)	23.0	23.0	10.0	7.0	7.0		10.0	30.0		10.0	30.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag			Lead				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	1.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)	8.0	8.0										
Flash Dont Walk (s)	15.0	15.0										
Pedestrian Calls (#/hr)	2	2										
v/c Ratio		0.86	0.13		0.22		0.37	0.43		0.01	0.83	
Control Delay		54.3	15.5		28.1		13.8	15.6		16.0	38.8	
Queue Delay		4.8	0.0		0.0		0.0	0.9		0.0	51.0	
Total Delay		59.2	15.5		28.1		13.8	16.4		16.0	89.8	
Queue Length 50th (ft)		185	25		6		22	156		2	410	
Queue Length 95th (ft)		#316	37		32		43	384		m3	#751	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		449	587		151		283	1109		553	896	
Starvation Cap Reductn		0	0		0		0	355		0	332	
Spillback Cap Reductn		54	65		1		0	99		0	7	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.88	0.13		0.19		0.28	0.64		0.01	1.31	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 40 (44%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	308	13	62	2	8	16	73	430	13	5	531	150
Future Volume (veh/h)	308	13	62	2	8	16	73	430	13	5	531	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2263	2263	2263	1986	2091	2106	1817	1803	1817
Adj Flow Rate, veh/h	335	14	67	2	9	17	79	467	14	5	577	163
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	10	3	2	2	3	2
Cap, veh/h	372	16	401	4	18	34	234	1061	32	426	662	187
Arrive On Green	0.22	0.22	0.22	0.03	0.03	0.03	0.04	0.53	0.53	0.00	0.49	0.49
Sat Flow, veh/h	1692	71	1558	141	635	1199	1891	2018	60	1731	1343	379
Grp Volume(v), veh/h	349	0	67	28	0	0	79	0	481	5	0	740
Grp Sat Flow(s),veh/h/ln	1762	0	1558	1975	0	0	1891	0	2078	1731	0	1722
Q Serve(g_s), s	17.3	0.0	3.0	1.3	0.0	0.0	1.8	0.0	12.8	0.1	0.0	34.4
Cycle Q Clear(g_c), s	17.3	0.0	3.0	1.3	0.0	0.0	1.8	0.0	12.8	0.1	0.0	34.4
Prop In Lane	0.96		1.00	0.07		0.61	1.00		0.03	1.00		0.22
Lane Grp Cap(c), veh/h	388	0	401	55	0	0	234	0	1093	426	0	849
V/C Ratio(X)	0.90	0.00	0.17	0.51	0.00	0.00	0.34	0.00	0.44	0.01	0.00	0.87
Avail Cap(c_a), veh/h	450	0	456	154	0	0	375	0	1093	612	0	849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.87	0.00	0.87	0.78	0.00	0.78
Uniform Delay (d), s/veh	34.1	0.0	26.0	43.1	0.0	0.0	17.7	0.0	13.2	12.0	0.0	20.3
Incr Delay (d2), s/veh	17.7	0.0	0.1	2.7	0.0	0.0	0.3	0.0	1.1	0.0	0.0	9.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	0.0	1.1	0.6	0.0	0.0	0.7	0.0	6.0	0.0	0.0	15.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.8	0.0	26.0	45.8	0.0	0.0	18.0	0.0	14.3	12.0	0.0	29.9
LnGrp LOS	D	A	C	D	A	A	B	A	B	B	A	C
Approach Vol, veh/h		416			28			560			745	
Approach Delay, s/veh		47.7			45.8			14.8			29.8	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	52.3		24.8	8.3	49.4		7.5				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	30.0		23.0	10.0	30.0		7.0				
Max Q Clear Time (g_c+I1), s	2.1	14.8		19.3	3.8	36.4		3.3				
Green Ext Time (p_c), s	0.0	0.9		0.4	0.0	0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		29.5	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

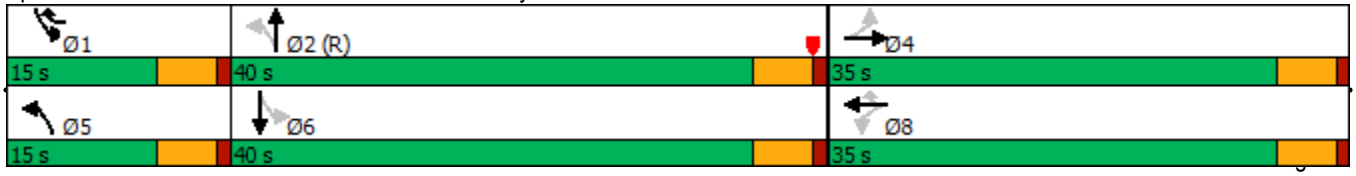
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	8	2	50	2	184	2	329	80	257	347	0
Future Volume (vph)	2	8	2	50	2	184	2	329	80	257	347	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.95		0.99				
Frt		0.979				0.850		0.971				
Flt Protected		0.992			0.954		0.950			0.950		
Satd. Flow (prot)	0	1825	0	0	1885	1647	1832	1804	0	1743	1853	0
Flt Permitted		0.961			0.720		0.529			0.344		
Satd. Flow (perm)	0	1768	0	0	1423	1566	1020	1804	0	631	1853	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		3										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			9			15			21			12
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	2%	5%	2%	1%	0%
Adj. Flow (vph)	3	13	3	55	2	202	3	416	101	292	394	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	0	57	202	3	517	0	292	394	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	1	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	35.0	35.0		35.0	35.0	15.0	15.0	40.0		15.0	40.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%	16.7%	16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	30.0	30.0		30.0	30.0	10.0	10.0	35.0		10.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	15	15		15	15			21				
v/c Ratio		0.07			0.28	0.49	0.00	0.49		0.47	0.28	
Control Delay		25.3			33.9	26.6	7.0	17.0		9.0	10.7	
Queue Delay		0.0			0.0	0.9	0.0	0.0		0.0	0.9	
Total Delay		25.3			33.9	27.5	7.0	17.1		9.0	11.6	
Queue Length 50th (ft)		9			31	97	0	138		65	103	
Queue Length 95th (ft)		15			57	106	3	301		m140	m289	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		591			474	431	800	1055		632	1403	
Starvation Cap Reductn		0			0	0	0	0		0	722	
Spillback Cap Reductn		0			0	77	0	9		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.03			0.12	0.57	0.00	0.49		0.46	0.58	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 45
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	8	2	50	2	184	2	329	80	257	347	0
Future Volume (veh/h)	2	8	2	50	2	184	2	329	80	257	347	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.95	0.97		0.95	0.99		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2185	2018	1988	1943	1817	1832	1847
Adj Flow Rate, veh/h	3	13	3	55	2	202	3	416	101	292	394	0
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	2	0	2	5	2	1	0
Cap, veh/h	66	216	44	332	11	440	701	901	219	599	1229	0
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.00	0.59	0.59	0.08	0.67	0.00
Sat Flow, veh/h	125	1347	276	1582	69	1765	1922	1532	372	1731	1832	0
Grp Volume(v), veh/h	19	0	0	57	0	202	3	0	517	292	394	0
Grp Sat Flow(s),veh/h/ln	1748	0	0	1650	0	1765	1922	0	1904	1731	1832	0
Q Serve(g_s), s	0.0	0.0	0.0	1.7	0.0	8.8	0.1	0.0	13.8	5.6	8.1	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	2.5	0.0	8.8	0.1	0.0	13.8	5.6	8.1	0.0
Prop In Lane	0.16		0.16	0.96		1.00	1.00		0.20	1.00		0.00
Lane Grp Cap(c), veh/h	326	0	0	343	0	440	701	0	1120	599	1229	0
V/C Ratio(X)	0.06	0.00	0.00	0.17	0.00	0.46	0.00	0.00	0.46	0.49	0.32	0.00
Avail Cap(c_a), veh/h	614	0	0	624	0	745	910	0	1120	645	1229	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.55	0.55	0.00
Uniform Delay (d), s/veh	32.1	0.0	0.0	32.7	0.0	29.0	7.5	0.0	10.5	7.1	6.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0	1.4	0.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	1.1	0.0	3.7	0.0	0.0	5.7	1.7	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	0.0	0.0	32.8	0.0	29.2	7.6	0.0	11.8	7.3	6.6	0.0
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		19			259			520			686	
Approach Delay, s/veh		32.1			30.0			11.8			6.9	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	58.0		19.4	5.2	65.4		19.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	35.0		30.0	10.0	35.0		30.0				
Max Q Clear Time (g_c+I1), s	7.6	15.8		2.8	2.1	10.1		10.8				
Green Ext Time (p_c), s	0.1	0.4		0.0	0.0	0.3		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		13.0	
HCM 6th LOS		B	

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	3	7	0	346	205	3
Future Volume (vph)	3	7	0	346	205	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.904				0.998	
Flt Protected	0.986					
Satd. Flow (prot)	1801	0	0	1977	1869	0
Flt Permitted	0.986					
Satd. Flow (perm)	1801	0	0	1977	1869	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	8	8			14
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	4	10	0	487	289	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	0	0	487	293	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.2

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	3	7	0	346	205	3
Future Vol, veh/h	3	7	0	346	205	3
Conflicting Peds, #/hr	14	8	8	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	4	2
Mvmt Flow	4	10	0	487	289	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	806	313	307	0	-	0
Stage 1	305	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	550	793	1254	-	-	-
Stage 1	886	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	536	777	1238	-	-	-
Mov Cap-2 Maneuver	536	-	-	-	-	-
Stage 1	874	-	-	-	-	-
Stage 2	794	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1238	-	685	-	-
HCM Lane V/C Ratio	-	-	0.021	-	-
HCM Control Delay (s)	0	-	10.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	43	9	9	339	198	31
Future Volume (vph)	43	9	9	339	198	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	16	11	12
Grade (%)	0%			2%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.976				0.982	
Flt Protected	0.960			0.999		
Satd. Flow (prot)	1920	0	0	2088	1739	0
Flt Permitted	0.960			0.999		
Satd. Flow (perm)	1920	0	0	2088	1739	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			216	408	
Travel Time (s)	4.5			4.9	9.3	
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	61	13	13	477	279	44
Shared Lane Traffic (%)						
Lane Group Flow (vph)	74	0	0	490	323	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.86	1.04	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.5

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	43	9	9	339	198	31
Future Vol, veh/h	43	9	9	339	198	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	4	2
Mvmt Flow	61	13	13	477	279	44

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	804	301	323	0	-	0
Stage 1	301	-	-	-	-	-
Stage 2	503	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	352	739	1237	-	-	-
Stage 1	751	-	-	-	-	-
Stage 2	607	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	347	739	1237	-	-	-
Mov Cap-2 Maneuver	347	-	-	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	607	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	16.6	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1237	-	382	-	-
HCM Lane V/C Ratio	0.01	-	0.192	-	-
HCM Control Delay (s)	7.9	0	16.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	77	0	19	111	0	10
Future Volume (vph)	77	0	19	111	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	13	9	12
Grade (%)	-5%			3%	3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.993		
Satd. Flow (prot)	1973	0	0	1883	1428	0
Flt Permitted				0.993		
Satd. Flow (perm)	1973	0	0	1883	1428	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	341			103	156	
Travel Time (s)	7.8			2.3	3.5	
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Adj. Flow (vph)	108	0	27	156	0	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	0	183	14	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	9	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.93	0.97	1.02	0.98	1.17	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	77	0	19	111	0	10
Future Vol, veh/h	77	0	19	111	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	3	3	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	108	0	27	156	0	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	108	0	318	108
Stage 1	-	-	-	-	108	-
Stage 2	-	-	-	-	210	-
Critical Hdwy	-	-	4.12	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1483	-	640	937
Stage 1	-	-	-	-	900	-
Stage 2	-	-	-	-	797	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1483	-	627	937
Mov Cap-2 Maneuver	-	-	-	-	627	-
Stage 1	-	-	-	-	900	-
Stage 2	-	-	-	-	781	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	937	-	-	1483	-
HCM Lane V/C Ratio	0.015	-	-	0.018	-
HCM Control Delay (s)	8.9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-

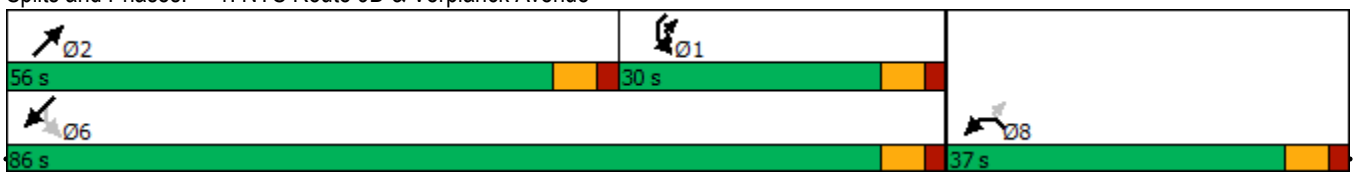
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	55	287	647	46	217	745
Future Volume (vph)	55	287	647	46	217	745
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98		1.00			
Frt		0.850	0.991			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1816	0	1778	1872
Flt Permitted	0.950				0.195	
Satd. Flow (perm)	1688	1544	1816	0	365	1872
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	7			1	1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	312	703	50	236	810
Shared Lane Traffic (%)						
Lane Group Flow (vph)	60	312	753	0	236	810
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	37.0	30.0	56.0		30.0	86.0
Total Split (%)	30.1%	24.4%	45.5%		24.4%	69.9%
Maximum Green (s)	31.0	24.0	50.0		24.0	80.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.35	0.59	0.79		0.40	0.53
Control Delay	47.3	29.4	28.5		12.6	6.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	47.3	29.4	28.5		12.6	6.1
Queue Length 50th (ft)	36	152	360		26	138
Queue Length 95th (ft)	76	231	#754		76	362
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	585	551	994		678	1576
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.10	0.57	0.76		0.35	0.51

Intersection Summary

Area Type: Other
Cycle Length: 123
Actuated Cycle Length: 93.9
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue

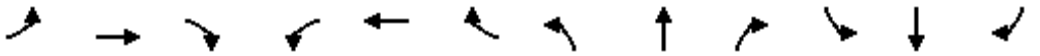




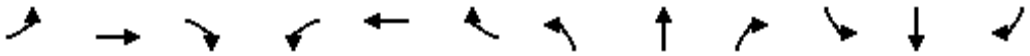
Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	55	287	647	46	217	745	
Future Volume (veh/h)	55	287	647	46	217	745	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1909	
Adj Flow Rate, veh/h	60	312	703	50	236	810	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	280	363	786	56	294	1224	
Arrive On Green	0.17	0.17	0.47	0.47	0.08	0.64	
Sat Flow, veh/h	1641	1460	1676	119	1818	1909	
Grp Volume(v), veh/h	60	312	0	753	236	810	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1796	1818	1909	
Q Serve(g_s), s	2.0	8.0	0.0	24.4	2.6	16.8	
Cycle Q Clear(g_c), s	2.0	8.0	0.0	24.4	2.6	16.8	
Prop In Lane	1.00	1.00		0.07	1.00		
Lane Grp Cap(c), veh/h	280	363	0	842	294	1224	
V/C Ratio(X)	0.21	0.86	0.00	0.89	0.80	0.66	
Avail Cap(c_a), veh/h	798	824	0	1409	837	2396	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	22.8	22.9	0.0	15.5	27.2	7.1	
Incr Delay (d2), s/veh	0.1	2.4	0.0	4.5	1.9	0.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.7	0.2	0.0	9.5	3.4	5.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.9	25.2	0.0	19.9	29.1	7.7	
LnGrp LOS	C	C	A	B	C	A	
Approach Vol, veh/h	372		753			1046	
Approach Delay, s/veh	24.9		19.9			12.6	
Approach LOS	C		B			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	11.0	35.9				46.9	16.9
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	24.0	50.0				80.0	31.0
Max Q Clear Time (g_c+I1), s	4.6	26.4				18.8	10.0
Green Ext Time (p_c), s	0.4	3.5				4.1	0.8

Intersection Summary	
HCM 6th Ctrl Delay	17.2
HCM 6th LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	2	18	4	6	11	24	621	5	8	696	97
Future Volume (vph)	70	2	18	4	6	11	24	621	5	8	696	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.99			1.00			1.00	
Frt		0.973			0.926			0.999			0.982	
Flt Protected		0.963			0.991		0.950			0.950		
Satd. Flow (prot)	0	1814	0	0	1743	0	1770	1923	0	1814	1930	0
Flt Permitted		0.759			0.942		0.240			0.349		
Satd. Flow (perm)	0	1417	0	0	1656	0	447	1923	0	666	1930	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			12			1			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		6	2		2	6		2	2		6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	74	2	19	4	6	12	26	661	5	9	740	103
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	95	0	0	22	0	26	666	0	9	843	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41		41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1		1	1		1	1	
Detector 2 Size(ft)		40			40		40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

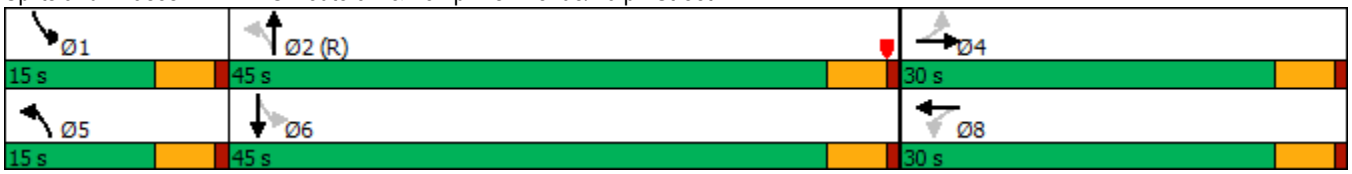


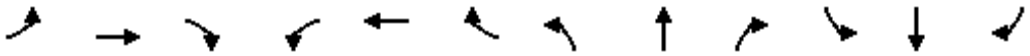
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0		15.0	45.0		15.0	45.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		16.7%	50.0%		16.7%	50.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0		10.0	40.0		10.0	40.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0			8.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0			15.0	
Pedestrian Calls (#/hr)	8	8		12	12			14			6	
v/c Ratio		0.50			0.10		0.06	0.45		0.02	0.58	
Control Delay		38.0			20.7		4.4	6.0		4.6	11.2	
Queue Delay		0.0			0.0		0.0	0.2		0.0	0.7	
Total Delay		38.0			20.7		4.4	6.3		4.6	11.8	
Queue Length 50th (ft)		44			5		1	117		1	139	
Queue Length 95th (ft)		78			23		m14	208		7	#583	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		403			468		497	1490		650	1456	
Starvation Cap Reductn		0			0		0	252		0	0	
Spillback Cap Reductn		1			0		0	0		0	282	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.24			0.05		0.05	0.54		0.01	0.72	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: NYS Route 9D & Tompkins Avenue/Ralph Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	2	18	4	6	11	24	621	5	8	696	97
Future Volume (veh/h)	70	2	18	4	6	11	24	621	5	8	696	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.98		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2012	2108	2027	1870	1945	1870	1870	1945	1870	2067	2149	2067
Adj Flow Rate, veh/h	74	2	19	4	6	12	26	661	5	9	740	103
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	9	30	59	60	86	462	1417	11	710	1339	186
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.03	1.00	1.00	0.01	0.73	0.73
Sat Flow, veh/h	1224	96	330	129	653	939	1781	1928	15	1968	1845	257
Grp Volume(v), veh/h	95	0	0	22	0	0	26	0	666	9	0	843
Grp Sat Flow(s),veh/h/ln	1650	0	0	1721	0	0	1781	0	1942	1968	0	2102
Q Serve(g_s), s	3.8	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.1	0.0	16.5
Cycle Q Clear(g_c), s	4.9	0.0	0.0	1.0	0.0	0.0	0.3	0.0	0.0	0.1	0.0	16.5
Prop In Lane	0.78		0.20	0.18		0.55	1.00		0.01	1.00		0.12
Lane Grp Cap(c), veh/h	222	0	0	205	0	0	462	0	1428	710	0	1526
V/C Ratio(X)	0.43	0.00	0.00	0.11	0.00	0.00	0.06	0.00	0.47	0.01	0.00	0.55
Avail Cap(c_a), veh/h	520	0	0	514	0	0	632	0	1428	915	0	1526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.91	0.00	0.91	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.3	0.0	0.0	37.6	0.0	0.0	4.5	0.0	0.0	3.2	0.0	5.6
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.4	0.0	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	0.0	0.0	37.7	0.0	0.0	4.6	0.0	1.0	3.2	0.0	7.1
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		95			22			692			852	
Approach Delay, s/veh		39.8			37.7			1.1			7.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	71.2		13.2	6.4	70.3		13.2				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	40.0		25.0	10.0	40.0		25.0				
Max Q Clear Time (g_c+I1), s	2.1	2.0		6.9	2.3	18.5		3.0				
Green Ext Time (p_c), s	0.0	1.5		0.1	0.0	2.1		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		6.9	
HCM 6th LOS		A	

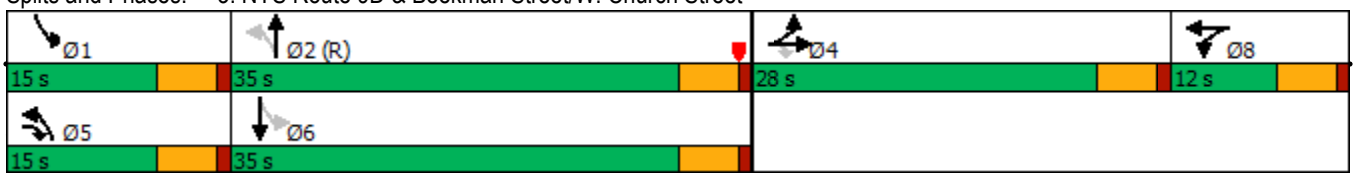
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	163	6	68	10	4	8	103	470	4	8	512	197
Future Volume (vph)	163	6	68	10	4	8	103	470	4	8	512	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98	0.97		0.96		1.00	1.00		1.00	0.99	
Frt			0.850		0.949			0.999			0.958	
Flt Protected		0.954			0.978		0.950			0.950		
Satd. Flow (prot)	0	1759	1567	0	1755	0	1823	1916	0	1743	1744	0
Flt Permitted		0.954			0.978		0.119			0.407		
Satd. Flow (perm)	0	1724	1522	0	1751	0	228	1916	0	744	1744	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					9						23	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	11		3	3		11	6		9	9		6
Confl. Bikes (#/hr)			3									
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	183	7	76	11	4	9	116	528	4	9	575	221
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	190	76	0	24	0	116	532	0	9	796	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												

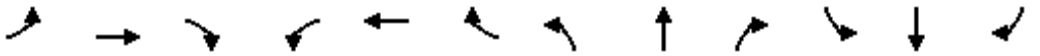
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Split	NA	pm+ov	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	4	4	5	8	8		5	2		1	6	
Permitted Phases			4				2			6		
Detector Phase	4	4	5	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	3.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	8.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	28.0	28.0	15.0	12.0	12.0		15.0	35.0		15.0	35.0	
Total Split (%)	31.1%	31.1%	16.7%	13.3%	13.3%		16.7%	38.9%		16.7%	38.9%	
Maximum Green (s)	23.0	23.0	10.0	7.0	7.0		10.0	30.0		10.0	30.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag			Lead				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	1.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)	8.0	8.0										
Flash Dont Walk (s)	15.0	15.0										
Pedestrian Calls (#/hr)	2	2										
v/c Ratio		0.66	0.21		0.20		0.45	0.43		0.02	0.82	
Control Delay		45.0	19.3		33.2		17.3	9.9		6.2	23.9	
Queue Delay		0.0	0.0		0.0		0.0	0.4		0.0	0.1	
Total Delay		45.0	19.3		33.2		17.3	10.4		6.2	24.0	
Queue Length 50th (ft)		103	33		8		16	86		1	290	
Queue Length 95th (ft)		151	40		32		m74	220		m2	#774	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		449	425		144		330	1247		599	967	
Starvation Cap Reductn		0	0		0		0	313		0	5	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.42	0.18		0.17		0.35	0.57		0.02	0.83	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 75
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street

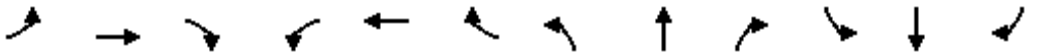




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	6	68	10	4	8	103	470	4	8	512	197
Future Volume (veh/h)	163	6	68	10	4	8	103	470	4	8	512	197
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.90	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2263	2263	2263	2106	2106	2106	1817	1817	1817
Adj Flow Rate, veh/h	183	7	76	11	4	9	116	528	4	9	575	221
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	10	283	23	8	19	312	1251	9	483	701	269
Arrive On Green	0.15	0.15	0.15	0.03	0.03	0.03	0.04	0.60	0.60	0.01	0.56	0.56
Sat Flow, veh/h	1697	65	1465	911	331	745	2006	2087	16	1731	1247	479
Grp Volume(v), veh/h	190	0	76	24	0	0	116	0	532	9	0	796
Grp Sat Flow(s),veh/h/ln	1762	0	1465	1987	0	0	2006	0	2103	1731	0	1727
Q Serve(g_s), s	9.3	0.0	4.0	1.1	0.0	0.0	2.2	0.0	12.2	0.2	0.0	33.7
Cycle Q Clear(g_c), s	9.3	0.0	4.0	1.1	0.0	0.0	2.2	0.0	12.2	0.2	0.0	33.7
Prop In Lane	0.96		1.00	0.46		0.37	1.00		0.01	1.00		0.28
Lane Grp Cap(c), veh/h	258	0	283	50	0	0	312	0	1261	483	0	971
V/C Ratio(X)	0.74	0.00	0.27	0.48	0.00	0.00	0.37	0.00	0.42	0.02	0.00	0.82
Avail Cap(c_a), veh/h	450	0	443	155	0	0	447	0	1261	664	0	971
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.87	0.00	0.87	0.79	0.00	0.79
Uniform Delay (d), s/veh	36.7	0.0	31.1	43.3	0.0	0.0	14.9	0.0	9.7	8.8	0.0	16.0
Incr Delay (d2), s/veh	1.5	0.0	0.2	2.7	0.0	0.0	0.2	0.0	0.9	0.0	0.0	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	1.4	0.6	0.0	0.0	0.9	0.0	5.4	0.1	0.0	13.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.3	0.0	31.3	46.0	0.0	0.0	15.1	0.0	10.6	8.8	0.0	22.2
LnGrp LOS	D	A	C	D	A	A	B	A	B	A	A	C
Approach Vol, veh/h		266			24			648			805	
Approach Delay, s/veh		36.3			46.0			11.4			22.1	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	59.0		18.2	9.0	55.6		7.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	30.0		23.0	10.0	30.0		7.0				
Max Q Clear Time (g_c+I1), s	2.2	14.2		11.3	4.2	35.7		3.1				
Green Ext Time (p_c), s	0.0	1.0		0.4	0.0	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			20.6									
HCM 6th LOS			C									



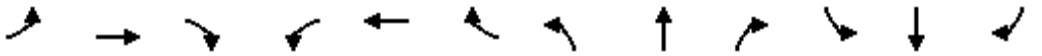
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	2	2	38	0	219	2	357	52	275	320	3
Future Volume (vph)	2	2	2	38	0	219	2	357	52	275	320	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98				0.97		0.99			1.00	
Frt		0.955				0.850		0.981			0.999	
Flt Protected		0.984			0.950		0.950			0.950		
Satd. Flow (prot)	0	1749	0	0	1877	1663	1832	1822	0	1760	1851	0
Flt Permitted		0.920			0.752		0.551			0.381		
Satd. Flow (perm)	0	1635	0	0	1486	1611	1063	1822	0	706	1851	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		3									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			14			6			48			11
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	2%	5%	1%	1%	0%
Adj. Flow (vph)	3	3	3	43	0	246	2	406	59	299	348	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	9	0	0	43	246	2	465	0	299	351	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	1	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	35.0	35.0		35.0	35.0	15.0	15.0	40.0		15.0	40.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%	16.7%	16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	30.0	30.0		30.0	30.0	10.0	10.0	35.0		10.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	15	15		15	15			21				
v/c Ratio		0.04			0.20	0.59	0.00	0.43		0.42	0.24	
Control Delay		23.2			32.3	30.8	7.0	15.0		9.5	6.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.3	
Total Delay		23.2			32.3	30.8	7.0	15.0		9.5	6.2	
Queue Length 50th (ft)		3			24	124	0	115		16	19	
Queue Length 95th (ft)		11			45	134	3	294		m111	m93	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		547			495	418	841	1093		704	1473	
Starvation Cap Reductn		0			0	0	0	0		0	558	
Spillback Cap Reductn		0			0	0	0	26		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.02			0.09	0.59	0.00	0.44		0.42	0.38	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	2	38	0	219	2	357	52	275	320	3
Future Volume (veh/h)	2	2	2	38	0	219	2	357	52	275	320	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.96		0.98	0.99		0.96	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2200	2018	1988	1943	1832	1832	1847
Adj Flow Rate, veh/h	3	3	3	43	0	246	2	406	59	299	348	3
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	1	0	2	5	1	1	0
Cap, veh/h	115	111	87	353	0	474	720	972	141	632	1201	10
Arrive On Green	0.17	0.17	0.17	0.17	0.00	0.17	0.00	0.58	0.58	0.09	0.66	0.66
Sat Flow, veh/h	364	658	511	1612	0	1831	1922	1686	245	1745	1814	16
Grp Volume(v), veh/h	9	0	0	43	0	246	2	0	465	299	0	351
Grp Sat Flow(s),veh/h/ln	1533	0	0	1612	0	1831	1922	0	1931	1745	0	1829
Q Serve(g_s), s	0.0	0.0	0.0	1.6	0.0	10.4	0.0	0.0	12.1	5.8	0.0	7.2
Cycle Q Clear(g_c), s	0.4	0.0	0.0	2.0	0.0	10.4	0.0	0.0	12.1	5.8	0.0	7.2
Prop In Lane	0.33		0.33	1.00		1.00	1.00		0.13	1.00		0.01
Lane Grp Cap(c), veh/h	313	0	0	353	0	474	720	0	1113	632	0	1212
V/C Ratio(X)	0.03	0.00	0.00	0.12	0.00	0.52	0.00	0.00	0.42	0.47	0.00	0.29
Avail Cap(c_a), veh/h	552	0	0	616	0	774	930	0	1113	672	0	1212
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.55	0.00	0.55
Uniform Delay (d), s/veh	31.2	0.0	0.0	31.8	0.0	28.7	8.0	0.0	10.6	7.0	0.0	6.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0	1.2	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.8	0.0	4.5	0.0	0.0	5.1	1.8	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.2	0.0	0.0	31.9	0.0	29.0	8.0	0.0	11.8	7.1	0.0	6.7
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		9			289			467			650	
Approach Delay, s/veh		31.2			29.4			11.8			6.9	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.9	56.9		20.2	5.1	64.6		20.2				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	35.0		30.0	10.0	35.0		30.0				
Max Q Clear Time (g_c+I1), s	7.8	14.1		2.4	2.0	9.2		12.4				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		13.3	
HCM 6th LOS		B	



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	2	0	208	264	0
Future Volume (vph)	2	2	0	208	264	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976					
Satd. Flow (prot)	1838	0	0	1977	1909	0
Flt Permitted	0.976					
Satd. Flow (perm)	1838	0	0	1977	1909	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	17	17			14
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	2	2	0	242	307	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	242	307	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	2	0	208	264	0
Future Vol, veh/h	2	2	0	208	264	0
Conflicting Peds, #/hr	14	17	17	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	2	0	242	307	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	580	341	324	0	-	0
Stage 1	324	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	658	771	1236	-	-	-
Stage 1	878	-	-	-	-	-
Stage 2	907	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	638	747	1217	-	-	-
Mov Cap-2 Maneuver	638	-	-	-	-	-
Stage 1	865	-	-	-	-	-
Stage 2	893	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1217	-	688	-	-
HCM Lane V/C Ratio	-	-	0.007	-	-
HCM Control Delay (s)	0	-	10.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	38	8	8	201	256	29
Future Volume (vph)	38	8	8	201	256	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	16	11	12
Grade (%)	0%			2%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.977				0.986	
Flt Protected	0.960			0.998		
Satd. Flow (prot)	1922	0	0	2086	1775	0
Flt Permitted	0.960			0.998		
Satd. Flow (perm)	1922	0	0	2086	1775	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			216	408	
Travel Time (s)	4.5			4.9	9.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	44	9	9	234	298	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	0	0	243	332	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.86	1.04	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1.2

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	38	8	8	201	256	29
Future Vol, veh/h	38	8	8	201	256	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	9	9	234	298	34

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	567	315	332	0	-	0
Stage 1	315	-	-	-	-	-
Stage 2	252	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	485	725	1227	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	481	725	1227	-	-	-
Mov Cap-2 Maneuver	481	-	-	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	790	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	12.9	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1227	-	511	-	-
HCM Lane V/C Ratio	0.008	-	0.105	-	-
HCM Control Delay (s)	8	0	12.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	79	0	18	108	0	9
Future Volume (vph)	79	0	18	108	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	13	9	12
Grade (%)	-5%			3%	3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.993		
Satd. Flow (prot)	1973	0	0	1883	1428	0
Flt Permitted				0.993		
Satd. Flow (perm)	1973	0	0	1883	1428	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	341			103	156	
Travel Time (s)	7.8			2.3	3.5	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	92	0	21	126	0	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	92	0	0	147	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	9	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.93	0.97	1.02	0.98	1.17	1.02
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	79	0	18	108	0	9
Future Vol, veh/h	79	0	18	108	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	3	3	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	0	21	126	0	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	92	0	260	92
Stage 1	-	-	-	-	92	-
Stage 2	-	-	-	-	168	-
Critical Hdwy	-	-	4.12	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1503	-	698	958
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	838	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1503	-	688	958
Mov Cap-2 Maneuver	-	-	-	-	688	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	825	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	958	-	-	1503	-
HCM Lane V/C Ratio	0.011	-	-	0.014	-
HCM Control Delay (s)	8.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

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Traffic & Parking Study

Appendix E | Traffic Volumes and Reference Data

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Appendix E | Traffic Volume Data

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400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 1._NYS_Route_9D_and_Verplanck_Avenue_-WKDAY_1107097_09-07-2023
Site Code :
Start Date : 9/7/2023
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					VERPLANCK AVE From East					NORTH AVE From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	164	68	0	232	63	0	17	0	80	12	99	0	1	112	0	0	0	0	0	424
07:15 AM	0	132	70	0	202	68	0	10	0	78	13	110	0	1	124	0	0	0	0	0	404
07:30 AM	0	136	57	0	193	59	0	19	0	78	4	114	0	0	118	0	0	0	0	0	389
07:45 AM	0	121	79	0	200	58	0	12	1	71	16	137	0	0	153	0	0	0	0	0	424
Total	0	553	274	0	827	248	0	58	1	307	45	460	0	2	507	0	0	0	0	0	1641
08:00 AM	0	171	71	0	242	32	0	19	0	51	8	88	0	1	97	0	0	0	0	0	390
08:15 AM	0	136	44	0	180	33	0	7	3	43	9	132	0	0	141	0	0	0	0	0	364
08:30 AM	0	142	55	0	197	41	0	7	2	50	7	122	0	0	129	0	0	0	0	0	376
08:45 AM	0	125	41	0	166	37	0	12	1	50	11	128	0	0	139	0	0	0	0	0	355
Total	0	574	211	0	785	143	0	45	6	194	35	470	0	1	506	0	0	0	0	0	1485
Grand Total	0	1127	485	0	1612	391	0	103	7	501	80	930	0	3	1013	0	0	0	0	0	3126
Apprch %	0	69.9	30.1	0		78	0	20.6	1.4		7.9	91.8	0	0.3		0	0	0	0		
Total %	0	36.1	15.5	0	51.6	12.5	0	3.3	0.2	16	2.6	29.8	0	0.1	32.4	0	0	0	0	0	
Lights	0	1075	458	0	1533	371	0	93	0	464	73	876	0	0	949	0	0	0	0	0	2946
% Lights	0	95.4	94.4	0	95.1	94.9	0	90.3	0	92.6	91.2	94.2	0	0	93.7	0	0	0	0	0	94.2
Buses	0	17	15	0	32	11	0	7	0	18	5	20	0	0	25	0	0	0	0	0	75
% Buses	0	1.5	3.1	0	2	2.8	0	6.8	0	3.6	6.2	2.2	0	0	2.5	0	0	0	0	0	2.4
Trucks	0	35	12	0	47	9	0	3	0	12	2	34	0	0	36	0	0	0	0	0	95
% Trucks	0	3.1	2.5	0	2.9	2.3	0	2.9	0	2.4	2.5	3.7	0	0	3.6	0	0	0	0	0	3
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	2	2	0	0	0	1	1	0	0	0	0	0	3
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	28.6	0.4	0	0	0	33.3	0.1	0	0	0	0	0	0.1
Pedestrians	0	0	0	0	0	0	0	0	5	5	0	0	0	2	2	0	0	0	0	0	7
% Pedestrians	0	0	0	0	0	0	0	0	71.4	1	0	0	0	66.7	0.2	0	0	0	0	0	0.2

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 1._NYS_Route_9D_and_Verplanck_Avenue_-WKDAY_1107097_09-07-2023
Site Code :
Start Date : 9/7/2023

	NORTH AVE From North					VERPLANCK AVE From East					NORTH AVE From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	**164**	68	0	**232**	63	0	17	0	**80**	12	99	0	**1**	112	0	0	0	0	0	**424**
07:15 AM	0	132	70	0	202	**68**	0	10	0	78	13	110	0	1	124	0	0	0	0	0	404
07:30 AM	0	136	57	0	193	59	0	**19**	0	78	4	114	0	0	118	0	0	0	0	0	389
07:45 AM	0	121	**79**	0	200	58	0	12	**1**	71	**16**	**137**	0	0	**153**	0	0	0	0	0	424
Total Volume	0	553	274	0	827	248	0	58	1	307	45	460	0	2	507	0	0	0	0	0	1641
% App. Total	0	66.9	33.1	0		80.8	0	18.9	0.3		8.9	90.7	0	0.4		0	0	0	0		
PHF	.000	.843	.867	.000	.891	.912	.000	.763	.250	.959	.703	.839	.000	.500	.828	.000	.000	.000	.000	.000	.968
Lights	0	527	260	0	787	240	0	51	0	291	40	437	0	0	477	0	0	0	0	0	1555
% Lights	0	95.3	94.9	0	95.2	96.8	0	87.9	0	94.8	88.9	95.0	0	0	94.1	0	0	0	0	0	94.8
Buses	0	6	9	0	15	6	0	5	0	11	3	7	0	0	10	0	0	0	0	0	36
% Buses	0	1.1	3.3	0	1.8	2.4	0	8.6	0	3.6	6.7	1.5	0	0	2.0	0	0	0	0	0	2.2
Trucks	0	20	5	0	25	2	0	2	0	4	2	16	0	0	18	0	0	0	0	0	47
% Trucks	0	3.6	1.8	0	3.0	0.8	0	3.4	0	1.3	4.4	3.5	0	0	3.6	0	0	0	0	0	2.9
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	50.0	0.2	0	0	0	0	0	0.1
Pedestrians	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	2
% Pedestrians	0	0	0	0	0	0	0	0	100	0.3	0	0	0	50.0	0.2	0	0	0	0	0	0.1

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 1._NYS_Route_9D_and_Verplanck_Avenue_-WKDAY_1107097_09-07-2023
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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					VERPLANCK AVE From East					NORTH AVE From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:00 PM	0	120	57	0	177	89	0	15	0	104	6	116	0	1	123	0	0	0	0	0	404
03:15 PM	0	117	47	0	164	82	0	15	0	97	12	154	0	0	166	0	0	0	0	0	427
03:30 PM	0	102	44	0	146	86	0	16	1	103	3	148	0	0	151	0	0	0	0	0	400
03:45 PM	0	156	38	0	194	67	0	8	0	75	5	150	0	0	155	0	0	0	0	0	424
Total	0	495	186	0	681	324	0	54	1	379	26	568	0	1	595	0	0	0	0	0	1655
04:00 PM	0	127	42	0	169	76	0	10	0	86	9	129	0	0	138	0	0	0	0	0	393
04:15 PM	0	153	55	0	208	74	0	10	0	84	7	165	0	0	172	0	0	0	0	0	464
04:30 PM	0	144	54	0	198	54	0	11	2	67	4	155	0	0	159	0	0	0	0	0	424
04:45 PM	0	143	66	0	209	80	0	19	0	99	1	148	0	1	150	0	0	0	0	0	458
Total	0	567	217	0	784	284	0	50	2	336	21	597	0	1	619	0	0	0	0	0	1739
05:00 PM	0	129	44	0	173	89	0	19	1	109	4	151	0	0	155	0	0	0	0	0	437
05:15 PM	0	99	44	0	143	54	0	12	3	69	4	69	0	0	73	0	0	0	0	0	285
05:30 PM	0	127	44	0	171	71	0	26	0	97	3	91	0	0	94	0	0	0	0	0	362
05:45 PM	0	100	49	0	149	77	0	17	0	94	4	59	0	0	63	0	0	0	0	0	306
Total	0	455	181	0	636	291	0	74	4	369	15	370	0	0	385	0	0	0	0	0	1390
06:00 PM	0	109	55	0	164	72	0	22	1	95	1	71	0	1	73	0	0	0	0	0	332
06:15 PM	0	107	31	0	138	60	0	25	0	85	3	136	0	3	142	0	0	0	0	0	365
Grand Total	0	1733	670	0	2403	1031	0	225	8	1264	66	1742	0	6	1814	0	0	0	0	0	5481
Apprch %	0	72.1	27.9	0		81.6	0	17.8	0.6		3.6	96	0	0.3		0	0	0	0		
Total %	0	31.6	12.2	0	43.8	18.8	0	4.1	0.1	23.1	1.2	31.8	0	0.1	33.1	0	0	0	0	0	
Lights	0	1690	657	0	2347	1006	0	215	0	1221	63	1687	0	0	1750	0	0	0	0	0	5318
% Lights	0	97.5	98.1	0	97.7	97.6	0	95.6	0	96.6	95.5	96.8	0	0	96.5	0	0	0	0	0	97
Buses	0	21	6	0	27	12	0	6	0	18	2	24	0	0	26	0	0	0	0	0	71
% Buses	0	1.2	0.9	0	1.1	1.2	0	2.7	0	1.4	3	1.4	0	0	1.4	0	0	0	0	0	1.3
Trucks	0	22	7	0	29	13	0	4	0	17	1	31	0	0	32	0	0	0	0	0	78
% Trucks	0	1.3	1	0	1.2	1.3	0	1.8	0	1.3	1.5	1.8	0	0	1.8	0	0	0	0	0	1.4
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	4
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	50	0.3	0	0	0	0	0	0	0	0	0	0	0.1
Pedestrians	0	0	0	0	0	0	0	0	4	4	0	0	0	6	6	0	0	0	0	0	10
% Pedestrians	0	0	0	0	0	0	0	0	50	0.3	0	0	0	100	0.3	0	0	0	0	0	0.2

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
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	NORTH AVE From North					VERPLANCK AVE From East					NORTH AVE From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	**153**	55	0	208	74	0	10	0	84	**7**	**165**	0	0	**172**	0	0	0	0	0	**464**
04:30 PM	0	144	54	0	198	54	0	11	**2**	67	4	155	0	0	159	0	0	0	0	0	424
04:45 PM	0	143	**66**	0	**209**	80	0	**19**	0	99	1	148	0	**1**	150	0	0	0	0	0	458
05:00 PM	0	129	44	0	173	**89**	0	19	1	**109**	4	151	0	0	155	0	0	0	0	0	437
Total Volume	0	569	219	0	788	297	0	59	3	359	16	619	0	1	636	0	0	0	0	0	1783
% App. Total	0	72.2	27.8	0		82.7	0	16.4	0.8		2.5	97.3	0	0.2		0	0	0	0		
PHF	.000	.930	.830	.000	.943	.834	.000	.776	.375	.823	.571	.938	.000	.250	.924	.000	.000	.000	.000	.000	.961
Lights	0	553	217	0	770	292	0	59	0	351	16	606	0	0	622	0	0	0	0	0	1743
% Lights	0	97.2	99.1	0	97.7	98.3	0	100	0	97.8	100	97.9	0	0	97.8	0	0	0	0	0	97.8
Buses	0	5	0	0	5	1	0	0	0	1	0	7	0	0	7	0	0	0	0	0	13
% Buses	0	0.9	0	0	0.6	0.3	0	0	0	0.3	0	1.1	0	0	1.1	0	0	0	0	0	0.7
Trucks	0	11	2	0	13	4	0	0	0	4	0	6	0	0	6	0	0	0	0	0	23
% Trucks	0	1.9	0.9	0	1.6	1.3	0	0	0	1.1	0	1.0	0	0	0.9	0	0	0	0	0	1.3
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	2
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	66.7	0.6	0	0	0	0	0	0	0	0	0	0	0.1
Pedestrians	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	2
% Pedestrians	0	0	0	0	0	0	0	0	33.3	0.3	0	0	0	100	0.2	0	0	0	0	0	0.1

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					VERPLANCK AVE From East					NORTH AVE From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
11:00 AM	0	160	43	0	203	53	0	8	1	62	10	127	0	0	137	0	0	0	0	0	402
11:15 AM	0	127	55	0	182	57	0	5	0	62	7	103	0	0	110	0	0	0	0	0	354
11:30 AM	0	125	52	0	177	65	0	3	0	68	8	128	0	1	137	0	0	0	0	0	382
11:45 AM	0	155	46	0	201	65	0	16	0	81	9	113	0	2	124	0	0	0	0	0	406
Total	0	567	196	0	763	240	0	32	1	273	34	471	0	3	508	0	0	0	0	0	1544
12:00 PM	0	158	48	0	206	62	0	9	0	71	9	140	0	0	149	0	0	0	0	0	426
12:15 PM	0	157	34	0	191	78	0	8	1	87	6	127	0	2	135	0	0	0	0	0	413
12:30 PM	0	136	44	0	180	65	0	12	0	77	7	125	0	0	132	0	0	0	0	0	389
12:45 PM	0	144	42	0	186	54	0	8	1	63	13	135	0	0	148	0	0	0	0	0	397
Total	0	595	168	0	763	259	0	37	2	298	35	527	0	2	564	0	0	0	0	0	1625
01:00 PM	0	137	47	0	184	60	0	9	1	70	4	119	0	1	124	0	0	0	0	0	378
01:15 PM	0	147	51	0	198	58	0	9	0	67	8	117	0	1	126	0	0	0	0	0	391
01:30 PM	0	153	52	0	205	66	0	11	0	77	7	157	0	5	169	0	0	0	0	0	451
01:45 PM	0	157	54	0	211	63	0	14	0	77	5	139	0	0	144	0	0	0	0	0	432
Total	0	594	204	0	798	247	0	43	1	291	24	532	0	7	563	0	0	0	0	0	1652
Grand Total	0	1756	568	0	2324	746	0	112	4	862	93	1530	0	12	1635	0	0	0	0	0	4821
Apprch %	0	75.6	24.4	0		86.5	0	13	0.5		5.7	93.6	0	0.7		0	0	0	0		
Total %	0	36.4	11.8	0	48.2	15.5	0	2.3	0.1	17.9	1.9	31.7	0	0.2	33.9	0	0	0	0	0	
Lights	0	1735	561	0	2296	733	0	110	0	843	92	1509	0	0	1601	0	0	0	0	0	4740
% Lights	0	98.8	98.8	0	98.8	98.3	0	98.2	0	97.8	98.9	98.6	0	0	97.9	0	0	0	0	0	98.3
Buses	0	7	1	0	8	5	0	0	0	5	0	5	0	0	5	0	0	0	0	0	18
% Buses	0	0.4	0.2	0	0.3	0.7	0	0	0	0.6	0	0.3	0	0	0.3	0	0	0	0	0	0.4
Trucks	0	14	6	0	20	8	0	2	0	10	1	16	0	0	17	0	0	0	0	0	47
% Trucks	0	0.8	1.1	0	0.9	1.1	0	1.8	0	1.2	1.1	1	0	0	1	0	0	0	0	0	1
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	4	4	0	0	0	12	12	0	0	0	0	0	16
% Pedestrians	0	0	0	0	0	0	0	0	100	0.5	0	0	0	100	0.7	0	0	0	0	0	0.3

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
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	NORTH AVE From North					VERPLANCK AVE From East					NORTH AVE From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	0	137	47	0	184	60	0	9	**1**	70	4	119	0	1	124	0	0	0	0	0	378
01:15 PM	0	147	51	0	198	58	0	9	0	67	**8**	117	0	1	126	0	0	0	0	0	391
01:30 PM	0	153	52	0	205	**66**	0	11	0	**77**	7	**157**	0	**5**	**169**	0	0	0	0	0	**451**
01:45 PM	0	**157**	**54**	0	**211**	63	0	**14**	0	77	5	139	0	0	144	0	0	0	0	0	432
Total Volume	0	594	204	0	798	247	0	43	1	291	24	532	0	7	563	0	0	0	0	0	1652
% App. Total	0	74.4	25.6	0		84.9	0	14.8	0.3		4.3	94.5	0	1.2		0	0	0	0		
PHF	.000	.946	.944	.000	.945	.936	.000	.768	.250	.945	.750	.847	.000	.350	.833	.000	.000	.000	.000	.000	.916
Lights	0	590	203	0	793	246	0	43	0	289	24	524	0	0	548	0	0	0	0	0	1630
% Lights	0	99.3	99.5	0	99.4	99.6	0	100	0	99.3	100	98.5	0	0	97.3	0	0	0	0	0	98.7
Buses	0	2	1	0	3	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	5
% Buses	0	0.3	0.5	0	0.4	0.4	0	0	0	0.3	0	0.2	0	0	0.2	0	0	0	0	0	0.3
Trucks	0	2	0	0	2	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	9
% Trucks	0	0.3	0	0	0.3	0	0	0	0	0	0	1.3	0	0	1.2	0	0	0	0	0	0.5
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	1	1	0	0	0	7	7	0	0	0	0	0	8
% Pedestrians	0	0	0	0	0	0	0	0	100	0.3	0	0	0	100	1.2	0	0	0	0	0	0.5

Colliers Engineering & Design

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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					RALPH ST From East					NORTH AVE From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	17	168	0	0	185	2	1	0	0	3	0	97	2	0	99	1	3	6	0	10	297
07:15 AM	14	132	0	0	146	1	0	0	1	2	1	106	1	0	108	3	0	6	2	11	267
07:30 AM	8	138	0	0	146	1	1	0	1	3	0	97	1	0	98	0	1	5	1	7	254
07:45 AM	13	122	2	0	137	0	2	1	2	5	0	122	2	0	124	5	3	11	0	19	285
Total	52	560	2	0	614	4	4	1	4	13	1	422	6	0	429	9	7	28	3	47	1103
08:00 AM	15	173	0	0	188	1	0	1	1	3	0	92	0	0	92	2	2	3	1	8	291
08:15 AM	7	142	0	0	149	2	0	1	6	9	1	121	4	0	126	9	0	4	2	15	299
08:30 AM	8	151	0	0	159	2	0	4	3	9	1	121	5	0	127	11	1	7	2	21	316
08:45 AM	7	123	1	0	131	3	0	2	2	7	3	135	7	2	147	2	0	4	1	7	292
Total	37	589	1	0	627	8	0	8	12	28	5	469	16	2	492	24	3	18	6	51	1198
Grand Total	89	1149	3	0	1241	12	4	9	16	41	6	891	22	2	921	33	10	46	9	98	2301
Apprch %	7.2	92.6	0.2	0		29.3	9.8	22	39		0.7	96.7	2.4	0.2		33.7	10.2	46.9	9.2		
Total %	3.9	49.9	0.1	0	53.9	0.5	0.2	0.4	0.7	1.8	0.3	38.7	1	0.1	40	1.4	0.4	2	0.4	4.3	
Lights	82	1100	3	0	1185	11	4	8	0	23	6	840	22	0	868	32	10	46	0	88	2164
% Lights	92.1	95.7	100	0	95.5	91.7	100	88.9	0	56.1	100	94.3	100	0	94.2	97	100	100	0	89.8	94
Buses	0	20	0	0	20	1	0	1	0	2	0	19	0	0	19	0	0	0	0	0	41
% Buses	0	1.7	0	0	1.6	8.3	0	11.1	0	4.9	0	2.1	0	0	2.1	0	0	0	0	0	1.8
Trucks	7	29	0	0	36	0	0	0	0	0	0	32	0	0	32	1	0	0	0	1	69
% Trucks	7.9	2.5	0	0	2.9	0	0	0	0	0	0	3.6	0	0	3.5	3	0	0	0	1	3
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	2	2	6
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	25	9.8	0	0	0	0	0	0	0	0	22.2	2	0.3
Pedestrians	0	0	0	0	0	0	0	0	12	12	0	0	0	2	2	0	0	0	7	7	21
% Pedestrians	0	0	0	0	0	0	0	0	75	29.3	0	0	0	100	0.2	0	0	0	77.8	7.1	0.9

Colliers Engineering & Design

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	NORTH AVE From North					RALPH ST From East					NORTH AVE From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	**15**	**173**	0	0	**188**	1	0	1	1	3	0	92	0	0	92	2	**2**	3	1	8	291
08:15 AM	7	142	0	0	149	2	0	1	**6**	**9**	1	121	4	0	126	9	0	4	**2**	15	299
08:30 AM	8	151	0	0	159	2	0	**4**	3	9	1	121	5	0	127	**11**	1	**7**	2	**21**	**316**
08:45 AM	7	123	**1**	0	131	**3**	0	2	2	7	**3**	**135**	**7**	**2**	**147**	2	0	4	1	7	292
Total Volume	37	589	1	0	627	8	0	8	12	28	5	469	16	2	492	24	3	18	6	51	1198
% App. Total	5.9	93.9	0.2	0		28.6	0	28.6	42.9		1	95.3	3.3	0.4		47.1	5.9	35.3	11.8		
PHF	.617	.851	.250	.000	.834	.667	.000	.500	.500	.778	.417	.869	.571	.250	.837	.545	.375	.643	.750	.607	.948
Lights	33	566	1	0	600	8	0	7	0	15	5	442	16	0	463	23	3	18	0	44	1122
% Lights	89.2	96.1	100	0	95.7	100	0	87.5	0	53.6	100	94.2	100	0	94.1	95.8	100	100	0	86.3	93.7
Buses	0	9	0	0	9	0	0	1	0	1	0	10	0	0	10	0	0	0	0	0	20
% Buses	0	1.5	0	0	1.4	0	0	12.5	0	3.6	0	2.1	0	0	2.0	0	0	0	0	0	1.7
Trucks	4	14	0	0	18	0	0	0	0	0	0	17	0	0	17	1	0	0	0	1	36
% Trucks	10.8	2.4	0	0	2.9	0	0	0	0	0	0	3.6	0	0	3.5	4.2	0	0	0	2.0	3.0
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	1	1	5
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	33.3	14.3	0	0	0	0	0	0	0	0	16.7	2.0	0.4
Pedestrians	0	0	0	0	0	0	0	0	8	8	0	0	0	2	2	0	0	0	5	5	15
% Pedestrians	0	0	0	0	0	0	0	0	66.7	28.6	0	0	0	100	0.4	0	0	0	83.3	9.8	1.3

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 2._NYS_Route_9D_and_Tompkins_Avenue_-WKDAY_1107099_09-07-2023
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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					RALPH ST From East					NORTH AVE From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:00 PM	6	124	5	0	135	2	0	2	1	5	2	127	7	0	136	3	3	3	1	10	286
03:15 PM	3	107	2	0	112	1	0	0	0	1	2	180	5	0	187	6	0	3	0	9	309
03:30 PM	3	97	1	0	101	1	0	1	1	3	1	138	3	0	142	1	0	3	1	5	251
03:45 PM	5	153	1	0	159	2	1	1	0	4	0	145	4	0	149	4	1	6	0	11	323
Total	17	481	9	0	507	6	1	4	2	13	5	590	19	0	614	14	4	15	2	35	1169
04:00 PM	1	112	2	0	115	3	0	0	0	3	0	126	3	1	130	2	2	10	1	15	263
04:15 PM	4	139	2	0	145	3	1	3	0	7	1	170	2	0	173	4	2	7	3	16	341
04:30 PM	7	145	0	0	152	1	1	0	0	2	2	129	2	0	133	3	2	2	1	8	295
04:45 PM	5	150	1	0	156	0	1	2	0	3	1	162	4	0	167	2	1	5	0	8	334
Total	17	546	5	0	568	7	3	5	0	15	4	587	11	1	603	11	7	24	5	47	1233
05:00 PM	8	124	2	0	134	0	0	1	2	3	1	137	6	0	144	2	0	7	0	9	290
05:15 PM	9	97	2	0	108	1	0	1	0	2	2	85	2	3	92	5	2	5	1	13	215
05:30 PM	8	130	2	0	140	0	1	1	0	2	2	88	1	0	91	4	6	4	0	14	247
05:45 PM	6	99	5	0	110	2	0	0	2	4	1	43	1	2	47	2	1	3	0	6	167
Total	31	450	11	0	492	3	1	3	4	11	6	353	10	5	374	13	9	19	1	42	919
06:00 PM	5	114	0	0	119	2	0	1	3	6	1	86	2	1	90	3	3	1	0	7	222
06:15 PM	3	112	3	0	118	1	0	0	0	1	3	127	3	0	133	1	1	4	1	7	259
Grand Total	73	1703	28	0	1804	19	5	13	9	46	19	1743	45	7	1814	42	24	63	9	138	3802
Apprch %	4	94.4	1.6	0		41.3	10.9	28.3	19.6		1	96.1	2.5	0.4		30.4	17.4	45.7	6.5		
Total %	1.9	44.8	0.7	0	47.4	0.5	0.1	0.3	0.2	1.2	0.5	45.8	1.2	0.2	47.7	1.1	0.6	1.7	0.2	3.6	
Lights	73	1655	27	0	1755	17	5	12	0	34	19	1693	45	0	1757	42	24	61	0	127	3673
% Lights	100	97.2	96.4	0	97.3	89.5	100	92.3	0	73.9	100	97.1	100	0	96.9	100	100	96.8	0	92	96.6
Buses	0	24	0	0	24	2	0	0	0	2	0	21	0	0	21	0	0	0	0	0	47
% Buses	0	1.4	0	0	1.3	10.5	0	0	0	4.3	0	1.2	0	0	1.2	0	0	0	0	0	1.2
Trucks	0	24	1	0	25	0	0	1	0	1	0	29	0	0	29	0	0	2	0	2	57
% Trucks	0	1.4	3.6	0	1.4	0	0	7.7	0	2.2	0	1.7	0	0	1.6	0	0	3.2	0	1.4	1.5
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44.4	2.9	0.1
Pedestrians	0	0	0	0	0	0	0	0	9	9	0	0	0	7	7	0	0	0	5	5	21
% Pedestrians	0	0	0	0	0	0	0	0	100	19.6	0	0	0	100	0.4	0	0	0	55.6	3.6	0.6

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 2._NYS_Route_9D_and_Tompkins_Avenue_-WKDAY_1107099_09-07-2023
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	NORTH AVE From North					RALPH ST From East					NORTH AVE From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	4	139	**2**	0	145	**3**	**1**	**3**	0	**7**	1	**170**	2	0	**173**	**4**	**2**	**7**	**3**	**16**	**341**
04:30 PM	7	145	0	0	152	1	1	0	0	2	**2**	129	2	0	133	3	2	2	1	8	295
04:45 PM	5	**150**	1	0	**156**	0	1	2	0	3	1	162	4	0	167	2	1	5	0	8	334
05:00 PM	**8**	124	2	0	134	0	0	1	**2**	3	1	137	**6**	0	144	2	0	7	0	9	290
Total Volume	24	558	5	0	587	4	3	6	2	15	5	598	14	0	617	11	5	21	4	41	1260
% App. Total	4.1	95.1	0.9	0		26.7	20	40	13.3		0.8	96.9	2.3	0		26.8	12.2	51.2	9.8		
PHF	.750	.930	.625	.000	.941	.333	.750	.500	.250	.536	.625	.879	.583	.000	.892	.688	.625	.750	.333	.641	.924
Lights	24	543	5	0	572	3	3	6	0	12	5	585	14	0	604	11	5	21	0	37	1225
% Lights	100	97.3	100	0	97.4	75.0	100	100	0	80.0	100	97.8	100	0	97.9	100	100	100	0	90.2	97.2
Buses	0	5	0	0	5	1	0	0	0	1	0	6	0	0	6	0	0	0	0	0	12
% Buses	0	0.9	0	0	0.9	25.0	0	0	0	6.7	0	1.0	0	0	1.0	0	0	0	0	0	1.0
Trucks	0	10	0	0	10	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	17
% Trucks	0	1.8	0	0	1.7	0	0	0	0	0	0	1.2	0	0	1.1	0	0	0	0	0	1.3
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75.0	7.3	0.2
Pedestrians	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	1	1	3
% Pedestrians	0	0	0	0	0	0	0	0	100	13.3	0	0	0	0	0	0	0	0	25.0	2.4	0.2

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 2._NYS_Route_9D_and_Tompkins_Avenue_-SAT_1107100_09-09-2023
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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					RALPH ST From East					NORTH AVE From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
11:00 AM	6	157	1	0	164	3	1	0	2	6	1	116	0	0	117	4	1	5	1	11	298
11:15 AM	6	122	0	0	128	4	0	2	1	7	0	105	1	0	106	2	0	3	0	5	246
11:30 AM	6	117	1	0	124	2	2	1	0	5	1	117	0	0	118	4	1	4	0	9	256
11:45 AM	7	163	1	0	171	2	0	0	1	3	0	117	4	0	121	2	0	6	1	9	304
Total	25	559	3	0	587	11	3	3	4	21	2	455	5	0	462	12	2	18	2	34	1104
12:00 PM	7	153	3	0	163	2	1	0	0	3	0	132	3	0	135	4	1	10	3	18	319
12:15 PM	2	146	2	0	150	3	1	2	1	7	3	112	2	0	117	3	0	4	0	7	281
12:30 PM	6	144	1	0	151	3	3	1	0	7	1	117	2	0	120	1	0	9	2	12	290
12:45 PM	7	139	3	0	149	4	1	1	5	11	0	127	1	0	128	2	0	6	0	8	296
Total	22	582	9	0	613	12	6	4	6	28	4	488	8	0	500	10	1	29	5	45	1186
01:00 PM	6	132	0	0	138	0	0	0	1	1	0	115	3	0	118	1	1	6	0	8	265
01:15 PM	4	148	1	0	153	0	0	0	1	1	0	120	2	1	123	1	0	3	0	4	281
01:30 PM	7	157	3	0	167	1	1	2	0	4	2	146	2	0	150	3	0	3	0	6	327
01:45 PM	11	154	2	0	167	1	0	2	0	3	0	127	1	2	130	3	1	6	5	15	315
Total	28	591	6	0	625	2	1	4	2	9	2	508	8	3	521	8	2	18	5	33	1188
Grand Total	75	1732	18	0	1825	25	10	11	12	58	8	1451	21	3	1483	30	5	65	12	112	3478
Apprch %	4.1	94.9	1	0		43.1	17.2	19	20.7		0.5	97.8	1.4	0.2		26.8	4.5	58	10.7		
Total %	2.2	49.8	0.5	0	52.5	0.7	0.3	0.3	0.3	1.7	0.2	41.7	0.6	0.1	42.6	0.9	0.1	1.9	0.3	3.2	
Lights	75	1705	18	0	1798	24	9	11	0	44	8	1431	21	0	1460	30	5	64	0	99	3401
% Lights	100	98.4	100	0	98.5	96	90	100	0	75.9	100	98.6	100	0	98.4	100	100	98.5	0	88.4	97.8
Buses	0	7	0	0	7	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	13
% Buses	0	0.4	0	0	0.4	0	0	0	0	0	0	0.3	0	0	0.3	0	0	1.5	0	0.9	0.4
Trucks	0	20	0	0	20	1	1	0	0	2	0	15	0	0	15	0	0	0	0	0	37
% Trucks	0	1.2	0	0	1.1	4	10	0	0	3.4	0	1	0	0	1	0	0	0	0	0	1.1
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.7	1.8	0.1
Pedestrians	0	0	0	0	0	0	0	0	12	12	0	0	0	3	3	0	0	0	10	10	25
% Pedestrians	0	0	0	0	0	0	0	0	100	20.7	0	0	0	100	0.2	0	0	0	83.3	8.9	0.7

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 2._NYS_Route_9D_and_Tompkins_Avenue_-SAT_1107100_09-09-2023
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	NORTH AVE From North					RALPH ST From East					NORTH AVE From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	**7**	**163**	1	0	**171**	2	0	0	**1**	3	0	117	**4**	0	121	2	0	6	1	9	304
12:00 PM	7	153	**3**	0	163	2	1	0	0	3	0	**132**	3	0	**135**	**4**	**1**	**10**	**3**	**18**	**319**
12:15 PM	2	146	2	0	150	**3**	1	**2**	1	**7**	**3**	112	2	0	117	3	0	4	0	7	281
12:30 PM	6	144	1	0	151	3	**3**	1	0	7	1	117	2	0	120	1	0	9	2	12	290
Total Volume	22	606	7	0	635	10	5	3	2	20	4	478	11	0	493	10	1	29	6	46	1194
% App. Total	3.5	95.4	1.1	0		50	25	15	10		0.8	97	2.2	0		21.7	2.2	63	13		
PHF	.786	.929	.583	.000	.928	.833	.417	.375	.500	.714	.333	.905	.688	.000	.913	.625	.250	.725	.500	.639	.936
Lights	22	593	7	0	622	10	5	3	0	18	4	473	11	0	488	10	1	28	0	39	1167
% Lights	100	97.9	100	0	98.0	100	100	100	0	90.0	100	99.0	100	0	99.0	100	100	96.6	0	84.8	97.7
Buses	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	6
% Buses	0	0.3	0	0	0.3	0	0	0	0	0	0	0.6	0	0	0.6	0	0	3.4	0	2.2	0.5
Trucks	0	11	0	0	11	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	13
% Trucks	0	1.8	0	0	1.7	0	0	0	0	0	0	0.4	0	0	0.4	0	0	0	0	0	1.1
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.7	2.2	0.1
Pedestrians	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	5	5	7
% Pedestrians	0	0	0	0	0	0	0	0	100	10.0	0	0	0	0	0	0	0	0	83.3	10.9	0.6

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 3._NYS_Route_9D_and_Beekman_Street_-WKDAY_1107101_09-07-2023
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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					W CHURCH ST From East					NORTH AVE From South					BEEKMAN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	102	58	2	2	164	1	1	0	1	3	0	73	6	0	79	1	2	24	0	27	273
07:15 AM	59	85	0	0	144	0	3	1	3	7	0	71	5	0	76	5	0	33	1	39	266
07:30 AM	55	74	1	0	130	3	3	0	1	7	0	77	6	0	83	2	0	18	1	21	241
07:45 AM	24	110	1	6	141	2	3	1	3	9	1	83	3	0	87	7	2	40	4	53	290
Total	240	327	4	8	579	6	10	2	8	26	1	304	20	0	325	15	4	115	6	140	1070
08:00 AM	63	99	2	1	165	1	3	1	1	6	0	70	8	0	78	6	1	19	0	26	275
08:15 AM	31	125	0	0	156	3	1	2	7	13	0	89	1	2	92	5	2	36	4	47	308
08:30 AM	41	125	0	0	166	0	4	5	3	12	1	108	3	0	112	11	1	18	2	32	322
08:45 AM	36	98	0	0	134	3	1	0	3	7	1	122	4	0	127	7	0	21	1	29	297
Total	171	447	2	1	621	7	9	8	14	38	2	389	16	2	409	29	4	94	7	134	1202
Grand Total	411	774	6	9	1200	13	19	10	22	64	3	693	36	2	734	44	8	209	13	274	2272
Apprch %	34.2	64.5	0.5	0.8		20.3	29.7	15.6	34.4		0.4	94.4	4.9	0.3		16.1	2.9	76.3	4.7		
Total %	18.1	34.1	0.3	0.4	52.8	0.6	0.8	0.4	1	2.8	0.1	30.5	1.6	0.1	32.3	1.9	0.4	9.2	0.6	12.1	
Lights	407	724	6	0	1137	13	19	10	0	42	3	650	33	0	686	40	7	201	0	248	2113
% Lights	99	93.5	100	0	94.8	100	100	100	0	65.6	100	93.8	91.7	0	93.5	90.9	87.5	96.2	0	90.5	93
Buses	3	21	0	0	24	0	0	0	0	0	0	17	3	0	20	3	1	3	0	7	51
% Buses	0.7	2.7	0	0	2	0	0	0	0	0	0	2.5	8.3	0	2.7	6.8	12.5	1.4	0	2.6	2.2
Trucks	1	29	0	0	30	0	0	0	0	0	0	26	0	0	26	1	0	5	0	6	62
% Trucks	0.2	3.7	0	0	2.5	0	0	0	0	0	0	3.8	0	0	3.5	2.3	0	2.4	0	2.2	2.7
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0.1	0	0	0	0	0	0
Pedestrians	0	0	0	9	9	0	0	0	22	22	0	0	0	1	1	0	0	0	13	13	45
% Pedestrians	0	0	0	100	0.8	0	0	0	100	34.4	0	0	0	50	0.1	0	0	0	100	4.7	2

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Valhalla, New York, 10595
Accelerating Success

File Name : 3._NYS_Route_9D_and_Beekman_Street_-WKDAY_1107101_09-07-2023
Site Code :
Start Date : 9/7/2023
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	NORTH AVE From North					W CHURCH ST From East					NORTH AVE From South					BEEKMAN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	**63**	99	**2**	**1**	165	1	3	1	1	6	0	70	**8**	0	78	6	1	19	0	26	275
08:15 AM	31	**125**	0	0	156	**3**	1	2	**7**	**13**	0	89	1	**2**	92	5	**2**	**36**	**4**	**47**	308
08:30 AM	41	125	0	0	**166**	0	**4**	**5**	3	12	**1**	108	3	0	112	**11**	1	18	2	32	**322**
08:45 AM	36	98	0	0	134	3	1	0	3	7	1	**122**	4	0	**127**	7	0	21	1	29	297
Total Volume	171	447	2	1	621	7	9	8	14	38	2	389	16	2	409	29	4	94	7	134	1202
% App. Total	27.5	72	0.3	0.2		18.4	23.7	21.1	36.8		0.5	95.1	3.9	0.5		21.6	3	70.1	5.2		
PHF	.679	.894	.250	.250	.935	.583	.563	.400	.500	.731	.500	.797	.500	.250	.805	.659	.500	.653	.438	.713	.933
Lights	169	424	2	0	595	7	9	8	0	24	2	364	15	0	381	27	3	90	0	120	1120
% Lights	98.8	94.9	100	0	95.8	100	100	100	0	63.2	100	93.6	93.8	0	93.2	93.1	75.0	95.7	0	89.6	93.2
Buses	1	10	0	0	11	0	0	0	0	0	0	11	1	0	12	1	1	1	0	3	26
% Buses	0.6	2.2	0	0	1.8	0	0	0	0	0	0	2.8	6.3	0	2.9	3.4	25.0	1.1	0	2.2	2.2
Trucks	1	13	0	0	14	0	0	0	0	0	0	14	0	0	14	1	0	3	0	4	32
% Trucks	0.6	2.9	0	0	2.3	0	0	0	0	0	0	3.6	0	0	3.4	3.4	0	3.2	0	3.0	2.7
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	50.0	0.2	0	0	0	0	0	0.1
Pedestrians	0	0	0	1	1	0	0	0	14	14	0	0	0	1	1	0	0	0	7	7	23
% Pedestrians	0	0	0	100	0.2	0	0	0	100	36.8	0	0	0	50.0	0.2	0	0	0	100	5.2	1.9

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 3._NYS_Route_9D_and_Beekman_Street_-WKDAY_1107101_09-07-2023
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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					W CHURCH ST From East					NORTH AVE From South					BEEKMAN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:00 PM	28	106	3	3	140	2	0	0	4	6	1	107	9	0	117	11	1	24	0	36	299
03:15 PM	19	86	2	0	107	1	1	0	0	2	2	135	4	0	141	4	4	55	1	64	314
03:30 PM	25	76	3	0	104	1	1	0	1	3	0	119	5	0	124	6	1	22	1	30	261
03:45 PM	40	113	1	0	154	4	1	1	0	6	1	117	0	0	118	4	1	20	0	25	303
Total	112	381	9	3	505	8	3	1	5	17	4	478	18	0	500	25	7	121	2	155	1177
04:00 PM	24	92	2	5	123	1	2	0	1	4	1	110	6	0	117	5	2	23	2	32	276
04:15 PM	27	114	1	1	143	2	1	0	1	4	2	98	7	0	107	11	3	80	3	97	351
04:30 PM	35	121	0	0	156	0	1	0	0	1	0	98	7	0	105	3	1	28	1	33	295
04:45 PM	33	114	2	0	149	2	3	0	0	5	6	68	8	0	82	9	5	100	1	115	351
Total	119	441	5	6	571	5	7	0	2	14	9	374	28	0	411	28	11	231	7	277	1273
05:00 PM	38	94	1	1	134	2	2	1	1	6	4	111	9	0	124	1	3	31	1	36	300
05:15 PM	23	85	0	0	108	1	0	0	3	4	5	57	4	0	66	9	10	38	0	57	235
05:30 PM	26	101	5	0	132	2	1	1	1	5	10	54	4	0	68	13	3	33	2	51	256
05:45 PM	40	63	1	1	105	3	2	2	3	10	11	27	3	0	41	23	19	20	1	63	219
Total	127	343	7	2	479	8	5	4	8	25	30	249	20	0	299	46	35	122	4	207	1010
06:00 PM	31	87	1	1	120	1	8	2	3	14	8	56	6	0	70	9	6	25	1	41	245
06:15 PM	39	75	1	3	118	3	3	1	0	7	3	61	6	1	71	10	6	68	5	89	285
Grand Total	428	1327	23	15	1793	25	26	8	18	77	54	1218	78	1	1351	118	65	567	19	769	3990
Apprch %	23.9	74	1.3	0.8		32.5	33.8	10.4	23.4		4	90.2	5.8	0.1		15.3	8.5	73.7	2.5		
Total %	10.7	33.3	0.6	0.4	44.9	0.6	0.7	0.2	0.5	1.9	1.4	30.5	2	0	33.9	3	1.6	14.2	0.5	19.3	
Lights	417	1290	22	0	1729	25	26	8	0	59	51	1177	70	0	1298	115	64	559	0	738	3824
% Lights	97.4	97.2	95.7	0	96.4	100	100	100	0	76.6	94.4	96.6	89.7	0	96.1	97.5	98.5	98.6	0	96	95.8
Buses	8	16	0	0	24	0	0	0	0	0	2	16	7	0	25	2	0	4	0	6	55
% Buses	1.9	1.2	0	0	1.3	0	0	0	0	0	3.7	1.3	9	0	1.9	1.7	0	0.7	0	0.8	1.4
Trucks	3	21	1	0	25	0	0	0	0	0	1	25	1	0	27	1	1	4	0	6	58
% Trucks	0.7	1.6	4.3	0	1.4	0	0	0	0	0	1.9	2.1	1.3	0	2	0.8	1.5	0.7	0	0.8	1.5
Bicycles on Crosswalk	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	5	5	7
% Bicycles on Crosswalk	0	0	0	6.7	0.1	0	0	0	5.6	1.3	0	0	0	0	0	0	0	0	26.3	0.7	0.2
Pedestrians	0	0	0	14	14	0	0	0	17	17	0	0	0	1	1	0	0	0	14	14	46
% Pedestrians	0	0	0	93.3	0.8	0	0	0	94.4	22.1	0	0	0	100	0.1	0	0	0	73.7	1.8	1.2

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 3._NYS_Route_9D_and_Beekman_Street_-WKDAY_1107101_09-07-2023
Site Code :
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	NORTH AVE From North					W CHURCH ST From East					NORTH AVE From South					BEEKMAN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	27	114	1	**1**	143	**2**	1	0	**1**	4	2	98	7	0	107	**11**	3	80	**3**	97	**351**
04:30 PM	35	**121**	0	0	**156**	0	1	0	0	1	0	98	7	0	105	3	1	28	1	33	295
04:45 PM	33	114	**2**	0	149	2	**3**	0	0	5	**6**	68	8	0	82	9	**5**	**100**	1	**115**	351
05:00 PM	**38**	94	1	1	134	2	2	**1**	1	**6**	4	**111**	**9**	0	**124**	1	3	31	1	36	300
Total Volume	133	443	4	2	582	6	7	1	2	16	12	375	31	0	418	24	12	239	6	281	1297
% App. Total	22.9	76.1	0.7	0.3		37.5	43.8	6.2	12.5		2.9	89.7	7.4	0		8.5	4.3	85.1	2.1		
PHF	.875	.915	.500	.500	.933	.750	.583	.250	.500	.667	.500	.845	.861	.000	.843	.545	.600	.598	.500	.611	.924
Lights	130	431	4	0	565	6	7	1	0	14	12	364	28	0	404	24	12	236	0	272	1255
% Lights	97.7	97.3	100	0	97.1	100	100	100	0	87.5	100	97.1	90.3	0	96.7	100	100	98.7	0	96.8	96.8
Buses	3	2	0	0	5	0	0	0	0	0	0	4	2	0	6	0	0	2	0	2	13
% Buses	2.3	0.5	0	0	0.9	0	0	0	0	0	0	1.1	6.5	0	1.4	0	0	0.8	0	0.7	1.0
Trucks	0	10	0	0	10	0	0	0	0	0	0	7	1	0	8	0	0	1	0	1	19
% Trucks	0	2.3	0	0	1.7	0	0	0	0	0	0	1.9	3.2	0	1.9	0	0	0.4	0	0.4	1.5
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.7	0.4	0.1
Pedestrians	0	0	0	2	2	0	0	0	2	2	0	0	0	0	0	0	0	0	5	5	9
% Pedestrians	0	0	0	100	0.3	0	0	0	100	12.5	0	0	0	0	0	0	0	0	83.3	1.8	0.7

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 3._NYS_Route_9D_and_Beekman_Street_-SAT_1107102_09-09-2023
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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					W CHURCH ST From East					NORTH AVE From South					BEEKMAN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
11:00 AM	61	97	2	0	160	2	6	1	0	9	2	88	8	0	98	4	1	29	2	36	303
11:15 AM	34	87	0	0	121	0	3	2	2	7	2	87	7	0	96	3	0	15	1	19	243
11:30 AM	30	102	1	1	134	0	1	3	0	4	0	94	8	0	102	15	0	32	0	47	287
11:45 AM	44	104	3	0	151	1	2	2	0	5	1	98	8	0	107	8	2	22	3	35	298
Total	169	390	6	1	566	3	12	8	2	25	5	367	31	0	403	30	3	98	6	137	1131
12:00 PM	47	101	1	1	150	2	0	0	1	3	0	89	14	0	103	9	1	41	1	52	308
12:15 PM	48	101	2	2	153	2	1	2	2	7	0	98	11	0	109	5	1	15	0	21	290
12:30 PM	44	94	4	0	142	3	2	0	0	5	0	72	9	0	81	12	3	49	2	66	294
12:45 PM	32	111	3	4	150	2	4	0	6	12	0	97	7	1	105	9	0	29	0	38	305
Total	171	407	10	7	595	9	7	2	9	27	0	356	41	1	398	35	5	134	3	177	1197
01:00 PM	35	96	0	1	132	4	0	1	1	6	1	88	8	1	98	8	0	32	1	41	277
01:15 PM	44	92	2	6	144	2	0	3	8	13	0	89	12	0	101	7	2	31	1	41	299
01:30 PM	45	117	4	0	166	1	0	4	0	5	1	100	8	2	111	13	0	46	4	63	345
01:45 PM	55	90	1	4	150	0	3	1	0	4	0	99	17	0	116	4	3	31	0	38	308
Total	179	395	7	11	592	7	3	9	9	28	2	376	45	3	426	32	5	140	6	183	1229
Grand Total	519	1192	23	19	1753	19	22	19	20	80	7	1099	117	4	1227	97	13	372	15	497	3557
Apprch %	29.6	68	1.3	1.1		23.8	27.5	23.8	25		0.6	89.6	9.5	0.3		19.5	2.6	74.8	3		
Total %	14.6	33.5	0.6	0.5	49.3	0.5	0.6	0.5	0.6	2.2	0.2	30.9	3.3	0.1	34.5	2.7	0.4	10.5	0.4	14	
Lights	513	1175	23	0	1711	19	22	19	0	60	7	1081	110	0	1198	97	13	370	0	480	3449
% Lights	98.8	98.6	100	0	97.6	100	100	100	0	75	100	98.4	94	0	97.6	100	100	99.5	0	96.6	97
Buses	2	5	0	0	7	0	0	0	0	0	0	4	7	0	11	0	0	2	0	2	20
% Buses	0.4	0.4	0	0	0.4	0	0	0	0	0	0	0.4	6	0	0.9	0	0	0.5	0	0.4	0.6
Trucks	4	12	0	0	16	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	30
% Trucks	0.8	1	0	0	0.9	0	0	0	0	0	0	1.3	0	0	1.1	0	0	0	0	0	0.8
Bicycles on Crosswalk	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	4
% Bicycles on Crosswalk	0	0	0	5.3	0.1	0	0	0	0	0	0	0	0	25	0.1	0	0	0	13.3	0.4	0.1
Pedestrians	0	0	0	18	18	0	0	0	20	20	0	0	0	3	3	0	0	0	13	13	54
% Pedestrians	0	0	0	94.7	1	0	0	0	100	25	0	0	0	75	0.2	0	0	0	86.7	2.6	1.5

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 3._NYS_Route_9D_and_Beekman_Street_-SAT_1107102_09-09-2023
Site Code :
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	NORTH AVE From North					W CHURCH ST From East					NORTH AVE From South					BEEKMAN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	35	96	0	1	132	**4**	0	1	1	6	**1**	88	8	1	98	8	0	32	1	41	277
01:15 PM	44	92	2	**6**	144	2	0	3	**8**	**13**	0	89	12	0	101	7	2	31	1	41	299
01:30 PM	45	**117**	**4**	0	**166**	1	0	**4**	0	5	1	**100**	8	**2**	111	**13**	0	**46**	**4**	**63**	**345**
01:45 PM	**55**	90	1	4	150	0	**3**	1	0	4	0	99	**17**	0	**116**	4	**3**	31	0	38	308
Total Volume	179	395	7	11	592	7	3	9	9	28	2	376	45	3	426	32	5	140	6	183	1229
% App. Total	30.2	66.7	1.2	1.9		25	10.7	32.1	32.1		0.5	88.3	10.6	0.7		17.5	2.7	76.5	3.3		
PHF	.814	.844	.438	.458	.892	.438	.250	.563	.281	.538	.500	.940	.662	.375	.918	.615	.417	.761	.375	.726	.891
Lights	179	391	7	0	577	7	3	9	0	19	2	368	44	0	414	32	5	140	0	177	1187
% Lights	100	99.0	100	0	97.5	100	100	100	0	67.9	100	97.9	97.8	0	97.2	100	100	100	0	96.7	96.6
Buses	0	2	0	0	2	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	4
% Buses	0	0.5	0	0	0.3	0	0	0	0	0	0	0.3	2.2	0	0.5	0	0	0	0	0	0.3
Trucks	0	2	0	0	2	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	9
% Trucks	0	0.5	0	0	0.3	0	0	0	0	0	0	1.9	0	0	1.6	0	0	0	0	0	0.7
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	2
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	33.3	0.2	0	0	0	16.7	0.5	0.2
Pedestrians	0	0	0	11	11	0	0	0	9	9	0	0	0	2	2	0	0	0	5	5	27
% Pedestrians	0	0	0	100	1.9	0	0	0	100	32.1	0	0	0	66.7	0.5	0	0	0	83.3	2.7	2.2

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 4._Beekman_Street_and_High_Street_-WKDAY_1107104_09-07-2023
Site Code :
Start Date : 9/7/2023
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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	BEEKMAN ST From North					From East					BEEKMAN ST From South					HIGH ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	105	0	0	105	0	0	0	0	0	0	27	0	1	28	0	0	0	1	1	134
07:15 AM	0	72	0	0	72	0	0	0	0	0	0	39	0	0	39	0	0	0	3	3	114
07:30 AM	0	59	0	0	59	0	0	0	0	0	0	23	0	1	24	0	0	0	2	2	85
07:45 AM	0	30	0	1	31	0	0	0	0	0	0	46	1	1	48	1	0	1	7	9	88
Total	0	266	0	1	267	0	0	0	0	0	0	135	1	3	139	1	0	1	13	15	421
08:00 AM	0	71	0	0	71	0	0	0	0	0	0	26	0	1	27	1	0	1	2	4	102
08:15 AM	0	36	0	0	36	0	0	0	0	0	0	39	0	0	39	0	0	0	1	1	76
08:30 AM	1	47	0	6	54	0	0	0	0	0	0	30	0	0	30	1	0	0	6	7	91
08:45 AM	0	38	0	0	38	0	0	0	0	0	0	27	0	2	29	0	0	1	1	2	69
Total	1	192	0	6	199	0	0	0	0	0	0	122	0	3	125	2	0	2	10	14	338
Grand Total	1	458	0	7	466	0	0	0	0	0	0	257	1	6	264	3	0	3	23	29	759
Apprch %	0.2	98.3	0	1.5		0	0	0	0		0	97.3	0.4	2.3		10.3	0	10.3	79.3		
Total %	0.1	60.3	0	0.9	61.4	0	0	0	0	0	0	33.9	0.1	0.8	34.8	0.4	0	0.4	3	3.8	
Lights	1	450	0	0	451	0	0	0	0	0	0	246	1	0	247	3	0	3	0	6	704
% Lights	100	98.3	0	0	96.8	0	0	0	0	0	0	95.7	100	0	93.6	100	0	100	0	20.7	92.8
Buses	0	7	0	0	7	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	14
% Buses	0	1.5	0	0	1.5	0	0	0	0	0	0	2.7	0	0	2.7	0	0	0	0	0	1.8
Trucks	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	5
% Trucks	0	0.2	0	0	0.2	0	0	0	0	0	0	1.6	0	0	1.5	0	0	0	0	0	0.7
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.3	3.4	0.1
Pedestrians	0	0	0	7	7	0	0	0	0	0	0	0	0	6	6	0	0	0	22	22	35
% Pedestrians	0	0	0	100	1.5	0	0	0	0	0	0	0	0	100	2.3	0	0	0	95.7	75.9	4.6

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 4._Beekman_Street_and_High_Street_-WKDAY_1107104_09-07-2023
Site Code :
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	BEEKMAN ST From North					From East					BEEKMAN ST From South					HIGH ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	**105**	0	0	**105**	0	0	0	0	0	0	27	0	**1**	28	0	0	0	1	1	**134**
07:15 AM	0	72	0	0	72	0	0	0	0	0	0	39	0	0	39	0	0	0	3	3	114
07:30 AM	0	59	0	0	59	0	0	0	0	0	0	23	0	1	24	0	0	0	2	2	85
07:45 AM	0	30	0	**1**	31	0	0	0	0	0	0	**46**	**1**	1	**48**	**1**	0	**1**	**7**	**9**	88
Total Volume	0	266	0	1	267	0	0	0	0	0	0	135	1	3	139	1	0	1	13	15	421
% App. Total	0	99.6	0	0.4		0	0	0	0		0	97.1	0.7	2.2		6.7	0	6.7	86.7		
PHF	.000	.633	.000	.250	.636	.000	.000	.000	.000	.000	.000	.734	.250	.750	.724	.250	.000	.250	.464	.417	.785
Lights	0	261	0	0	261	0	0	0	0	0	0	130	1	0	131	1	0	1	0	2	394
% Lights	0	98.1	0	0	97.8	0	0	0	0	0	0	96.3	100	0	94.2	100	0	100	0	13.3	93.6
Buses	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	9
% Buses	0	1.9	0	0	1.9	0	0	0	0	0	0	3.0	0	0	2.9	0	0	0	0	0	2.1
Trucks	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0	0.7	0	0	0	0	0	0.2
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.7	6.7	0.2
Pedestrians	0	0	0	1	1	0	0	0	0	0	0	0	0	3	3	0	0	0	12	12	16
% Pedestrians	0	0	0	100	0.4	0	0	0	0	0	0	0	0	100	2.2	0	0	0	92.3	80.0	3.8

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 4._Beekman_Street_and_High_Street_-WKDAY_1107104_09-07-2023
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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	BEEKMAN ST From North					From East					BEEKMAN ST From South					HIGH ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:00 PM	0	33	0	0	33	0	0	0	0	0	0	34	0	0	34	0	0	2	1	3	70
03:15 PM	0	20	0	0	20	0	0	0	0	0	0	62	0	0	62	0	0	1	4	5	87
03:30 PM	1	29	0	2	32	0	0	0	0	0	0	30	1	0	31	1	0	0	3	4	67
03:45 PM	1	33	0	0	34	0	0	0	0	0	0	23	0	0	23	0	0	0	0	0	57
Total	2	115	0	2	119	0	0	0	0	0	0	149	1	0	150	1	0	3	8	12	281
04:00 PM	1	33	0	1	35	0	0	0	0	0	0	26	0	0	26	1	0	0	6	7	68
04:15 PM	1	37	0	2	40	0	0	0	0	0	0	89	0	1	90	3	0	0	2	5	135
04:30 PM	0	45	0	2	47	0	0	0	0	0	0	27	0	0	27	1	0	0	2	3	77
04:45 PM	1	41	0	2	44	0	0	0	0	0	0	114	0	0	114	1	0	2	0	3	161
Total	3	156	0	7	166	0	0	0	0	0	0	256	0	1	257	6	0	2	10	18	441
05:00 PM	0	48	0	1	49	0	0	0	0	0	0	30	0	0	30	1	0	0	3	4	83
05:15 PM	0	28	0	0	28	0	0	0	0	0	0	82	1	0	83	2	0	1	0	3	114
05:30 PM	1	30	0	0	31	0	0	0	0	0	0	44	1	0	45	1	0	0	1	2	78
05:45 PM	0	45	0	0	45	0	0	0	0	0	0	57	3	2	62	2	0	0	0	2	109
Total	1	151	0	1	153	0	0	0	0	0	0	213	5	2	220	6	0	1	4	11	384
06:00 PM	1	46	0	0	47	0	0	0	0	0	0	21	1	0	22	1	0	0	2	3	72
06:15 PM	1	44	0	0	45	0	0	0	0	0	0	83	0	0	83	1	0	0	5	6	134
Grand Total	8	512	0	10	530	0	0	0	0	0	0	722	7	3	732	15	0	6	29	50	1312
Apprch %	1.5	96.6	0	1.9		0	0	0	0		0	98.6	1	0.4		30	0	12	58		
Total %	0.6	39	0	0.8	40.4	0	0	0	0	0	0	55	0.5	0.2	55.8	1.1	0	0.5	2.2	3.8	
Lights	8	496	0	0	504	0	0	0	0	0	0	710	7	0	717	15	0	6	0	21	1242
% Lights	100	96.9	0	0	95.1	0	0	0	0	0	0	98.3	100	0	98	100	0	100	0	42	94.7
Buses	0	14	0	0	14	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	20
% Buses	0	2.7	0	0	2.6	0	0	0	0	0	0	0.8	0	0	0.8	0	0	0	0	0	1.5
Trucks	0	2	0	0	2	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	8
% Trucks	0	0.4	0	0	0.4	0	0	0	0	0	0	0.8	0	0	0.8	0	0	0	0	0	0.6
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	5
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.2	10	0.4
Pedestrians	0	0	0	10	10	0	0	0	0	0	0	0	0	3	3	0	0	0	24	24	37
% Pedestrians	0	0	0	100	1.9	0	0	0	0	0	0	0	0	100	0.4	0	0	0	82.8	48	2.8

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 4._Beekman_Street_and_High_Street_-WKDAY_1107104_09-07-2023
Site Code :
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	BEEKMAN ST From North					From East					BEEKMAN ST From South					HIGH ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	**1**	37	0	**2**	40	0	0	0	0	0	0	89	0	**1**	90	**3**	0	0	2	**5**	135
04:30 PM	0	45	0	2	47	0	0	0	0	0	0	27	0	0	27	1	0	0	2	3	77
04:45 PM	1	41	0	2	44	0	0	0	0	0	0	**114**	0	0	**114**	1	0	**2**	0	3	**161**
05:00 PM	0	**48**	0	1	**49**	0	0	0	0	0	0	30	0	0	30	1	0	0	**3**	4	83
Total Volume	2	171	0	7	180	0	0	0	0	0	0	260	0	1	261	6	0	2	7	15	456
% App. Total	1.1	95	0	3.9		0	0	0	0		0	99.6	0	0.4		40	0	13.3	46.7		
PHF	.500	.891	.000	.875	.918	.000	.000	.000	.000	.000	.000	.570	.000	.250	.572	.500	.000	.250	.583	.750	.708
Lights	2	165	0	0	167	0	0	0	0	0	0	259	0	0	259	6	0	2	0	8	434
% Lights	100	96.5	0	0	92.8	0	0	0	0	0	0	99.6	0	0	99.2	100	0	100	0	53.3	95.2
Buses	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	6
% Buses	0	2.9	0	0	2.8	0	0	0	0	0	0	0.4	0	0	0.4	0	0	0	0	0	1.3
Trucks	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Trucks	0	0.6	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14.3	6.7	0.2
Pedestrians	0	0	0	7	7	0	0	0	0	0	0	0	0	1	1	0	0	0	6	6	14
% Pedestrians	0	0	0	100	3.9	0	0	0	0	0	0	0	0	100	0.4	0	0	0	85.7	40.0	3.1

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 4._Beekman_Street_and_High_Street_-SAT_1107105_09-09-2023
Site Code :
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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	BEEKMAN ST From North					From East					BEEKMAN ST From South					HIGH ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
11:00 AM	1	78	0	1	80	0	0	0	0	0	0	34	0	0	34	1	0	1	1	3	117
11:15 AM	0	44	0	0	44	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	62
11:30 AM	0	38	0	5	43	0	0	0	0	0	0	48	0	2	50	0	0	0	9	9	102
11:45 AM	0	52	0	0	52	0	0	0	0	0	0	31	0	0	31	0	0	0	2	2	85
Total	1	212	0	6	219	0	0	0	0	0	0	131	0	2	133	1	0	1	12	14	366
12:00 PM	0	61	0	0	61	0	0	0	0	0	0	47	0	0	47	0	0	1	0	1	109
12:15 PM	1	61	0	0	62	0	0	0	0	0	0	24	0	0	24	0	0	0	2	2	88
12:30 PM	0	57	0	0	57	0	0	0	0	0	0	61	0	0	61	1	0	0	1	2	120
12:45 PM	1	42	0	4	47	0	0	0	0	0	0	39	0	0	39	0	0	1	10	11	97
Total	2	221	0	4	227	0	0	0	0	0	0	171	0	0	171	1	0	2	13	16	414
01:00 PM	0	43	0	0	43	0	0	0	0	0	0	37	0	0	37	1	0	1	0	2	82
01:15 PM	0	55	0	0	55	0	0	0	0	0	0	44	0	1	45	0	0	0	4	4	104
01:30 PM	0	52	0	1	53	0	0	0	0	0	0	55	0	2	57	0	0	0	5	5	115
01:45 PM	0	78	0	0	78	0	0	0	0	0	0	40	0	1	41	0	0	0	4	4	123
Total	0	228	0	1	229	0	0	0	0	0	0	176	0	4	180	1	0	1	13	15	424
Grand Total	3	661	0	11	675	0	0	0	0	0	0	478	0	6	484	3	0	4	38	45	1204
Apprch %	0.4	97.9	0	1.6		0	0	0	0		0	98.8	0	1.2		6.7	0	8.9	84.4		
Total %	0.2	54.9	0	0.9	56.1	0	0	0	0	0	0	39.7	0	0.5	40.2	0.2	0	0.3	3.2	3.7	
Lights	2	648	0	0	650	0	0	0	0	0	0	476	0	0	476	3	0	4	0	7	1133
% Lights	66.7	98	0	0	96.3	0	0	0	0	0	0	99.6	0	0	98.3	100	0	100	0	15.6	94.1
Buses	0	9	0	0	9	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	11
% Buses	0	1.4	0	0	1.3	0	0	0	0	0	0	0.4	0	0	0.4	0	0	0	0	0	0.9
Trucks	1	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
% Trucks	33.3	0.6	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.6	2.2	0.1
Pedestrians	0	0	0	11	11	0	0	0	0	0	0	0	0	6	6	0	0	0	37	37	54
% Pedestrians	0	0	0	100	1.6	0	0	0	0	0	0	0	0	100	1.2	0	0	0	97.4	82.2	4.5

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
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Accelerating Success

File Name : 4._Beekman_Street_and_High_Street_-SAT_1107105_09-09-2023
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	BEEKMAN ST From North					From East					BEEKMAN ST From South					HIGH ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	0	43	0	0	43	0	0	0	0	0	0	37	0	0	37	**1**	0	**1**	0	2	82
01:15 PM	0	55	0	0	55	0	0	0	0	0	0	44	0	1	45	0	0	0	4	4	104
01:30 PM	0	52	0	**1**	53	0	0	0	0	0	0	**55**	0	**2**	**57**	0	0	0	**5**	**5**	115
01:45 PM	0	**78**	0	0	**78**	0	0	0	0	0	0	40	0	1	41	0	0	0	4	4	**123**
Total Volume	0	228	0	1	229	0	0	0	0	0	0	176	0	4	180	1	0	1	13	15	424
% App. Total	0	99.6	0	0.4		0	0	0	0		0	97.8	0	2.2		6.7	0	6.7	86.7		
PHF	.000	.731	.000	.250	.734	.000	.000	.000	.000	.000	.000	.800	.000	.500	.789	.250	.000	.250	.650	.750	.862
Lights	0	227	0	0	227	0	0	0	0	0	0	176	0	0	176	1	0	1	0	2	405
% Lights	0	99.6	0	0	99.1	0	0	0	0	0	0	100	0	0	97.8	100	0	100	0	13.3	95.5
Buses	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Buses	0	0.4	0	0	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	1	1	0	0	0	0	0	0	0	0	4	4	0	0	0	13	13	18
% Pedestrians	0	0	0	100	0.4	0	0	0	0	0	0	0	0	100	2.2	0	0	0	100	86.7	4.2

Colliers Engineering & Design

NYSDOT VOLUME DATA SUMMARY

ROADWAY: BEEKMAN STREET
SEGMENT: FROM NYS ROUTE 9D TO RED FLYNN DRIVE
LOCATION: 275' E OF RIVER ST
START DATE OF COUNT: Tuesday, April 24, 2018
NYSDOT COUNT STATION: 821009
FUNCTIONAL CLASS: 17 - URBAN MAJOR COLLECTOR
FACTOR GROUP: 30
SEASONAL FACTOR: 1.062

TIME PERIOD		DIRECTIONAL VOLUMES		TOTAL VOLUME
START	FINISH	EASTBOUND	WESTBOUND	
12:00 AM	1:00 AM	53	6	59
1:00 AM	2:00 AM	22	4	26
2:00 AM	3:00 AM	12	1	13
3:00 AM	4:00 AM	7	5	12
4:00 AM	5:00 AM	24	101	125
5:00 AM	6:00 AM	41	120	161
6:00 AM	7:00 AM	90	196	286
7:00 AM	8:00 AM	152	132	284
8:00 AM	9:00 AM	113	88	201
9:00 AM	10:00 AM	79	59	138
10:00 AM	11:00 AM	84	68	152
11:00 AM	12:00 PM	79	54	133
12:00 PM	1:00 PM	81	58	139
1:00 PM	2:00 PM	85	70	155
2:00 PM	3:00 PM	94	63	157
3:00 PM	4:00 PM	128	67	195
4:00 PM	5:00 PM	239	77	316
5:00 PM	6:00 PM	252	77	329
6:00 PM	7:00 PM	356	93	449
7:00 PM	8:00 PM	273	68	341
8:00 PM	9:00 PM	181	56	237
9:00 PM	10:00 PM	103	37	140
10:00 PM	11:00 PM	82	22	104
11:00 PM	12:00 AM	62	14	76
AVERAGE WEEKDAY DAILY TRAFFIC		**2692**	**1536**	**4228**
	AADT	**2535**	**1446**	**3981**

NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

NYSDOT CLASSIFICATION DATA SUMMARY

ROADWAY: BEEKMAN STREET
SEGMENT: FROM NYS ROUTE 9D TO RED FLYNN DRIVE
LOCATION: 275' E OF RIVER ST
START DATE OF COUNT: Tuesday, April 24, 2018
NYSDOT COUNT STATION: 821009
FUNCTIONAL CLASS: 17 - URBAN MAJOR COLLECTOR
FACTOR GROUP: 30

VEHICLE CLASS	DIRECTIONAL VOLUMES		TOTAL VEHICLES	TOTAL AXLES
	EASTBOUND	WESTBOUND		
F1	0	5	5	10
F2	2369	1352	3721	7442
F3	255	142	397	794
F4	20	6	26	65
F5	27	13	40	80
F6	7	5	12	36
F7	0	3	3	12
F8	1	0	1	4
F9	4	0	4	20
F10	0	3	3	18
F11	0	0	0	0
F12	0	0	0	0
F13	0	0	0	0
AVERAGE WEEKDAY TOTAL	**2683**	**1529**	**4212**	**8481**

	EASTBOUND	WESTBOUND	TOTAL
% TRUCKS & BUSES (F3 - F13)	12%	11%	12%
% HEAVY VEHICLES (F4 - F13)	2%	2%	2%
% F3 - F7	2%	2%	2%
% F8 - F13	0%	0%	0%
% F1	0%	0%	0%
% F2	88%	88%	88%
% F3	10%	9%	9%
% F4	1%	0%	1%
% F5 - F7	1%	1%	1%

VEHICLE CLASSIFICATION CODES:

- **F1** MOTORCYCLES
- **F2** AUTOS (INCLUDING THOSE HAULING TRAILERS)
- **F3** 2 AXLE, 4-TIRE PICKUPS, VANS, MOTORHOMES (INCLUDING THOSE HAULING TRAILERS)
- **F4** BUSES
- **F5** 2 AXLE, 6-TIRE SINGLE UNIT TRUCKS
- **F6** 3 AXLE SINGLE UNIT TRUCKS
- **F7** 4 OR MORE AXLE SINGLE UNIT TRUCKS
- **F8** 4 OR LESS AXLE VEHICLES, ONE UNIT IS A TRUCK
- **F9** 5 AXLE DOUBLE UNIT VEHICLES, ONE UNIT IS A TRUCK
- **F10** 6 OR MORE AXLE DOUBLE UNIT VEHICLES, ONE UNIT IS A TRUCK
- **F11** 5 OR LESS AXLE MULTI-UNIT TRUCKS
- **F12** 6 AXLE MULTI UNIT TRUCKS
- **F13** 7 OR MORE AXLE MULTI-UNIT TRUCKS

NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

NYSDOT SPEED DATA SUMMARY

ROADWAY: BEEKMAN STREET
SEGMENT: FROM NYS ROUTE 9D TO RED FLYNN DRIVE
LOCATION: 275' E OF RIVER ST
START DATE OF COUNT: Tuesday, April 24, 2018
NYSDOT COUNT STATION: 821009
FUNCTIONAL CLASS: 17 - URBAN MAJOR COLLECTOR
POSTED SPEED LIMIT: 30
FACTOR GROUP: 30

SPEEDS (MPH)	DIRECTIONAL VOLUMES		TOTAL VOLUME
	EASTBOUND	WESTBOUND	
0 - 20.0	97	14	111
20.1 - 25.0	323	40	363
25.1 - 30.0	1129	262	1391
30.1 - 35.0	896	690	1586
35.1 - 40.0	206	423	629
40.1 - 45.0	33	95	128
45.1 - 50.0	1	13	14
50.1 - 55.0	0	0	0
55.1 - 60.0	0	0	0
60.1 - 65.0	0	0	0
65.1 - 70.0	0	0	0
70.1 - 75.0	0	0	0
75.1 - 80.0	0	0	0
80.1+	0	0	0
UNCLASSIFIED	0	0	0
AVERAGE SPEED (MPH)	**28**	**32**	**29**
50TH PERCENTILE SPEED (MPH)	**29**	**33**	**31**
85TH PERCENTILE SPEED (MPH)	**34**	**39**	**36**

NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

NYSDOT VOLUME DATA SUMMARY

ROADWAY: NYS ROUTE 9D
SEGMENT: FROM MAIN STREET TO RTS I-84 AND 52 UNDER
LOCATION: 55' S OF VAN NESS RD
START DATE OF COUNT: Monday, May 6, 2019
NYSDOT COUNT STATION: 820021
FUNCTIONAL CLASS: 16 - URBAN MINOR ARTERIAL
FACTOR GROUP: 30
SEASONAL FACTOR: 1.089

TIME PERIOD		DIRECTIONAL VOLUMES		TOTAL VOLUME
START	FINISH	NORTHBOUND	SOUTHBOUND	
12:00 AM	1:00 AM	100	78	178
1:00 AM	2:00 AM	46	42	88
2:00 AM	3:00 AM	33	30	63
3:00 AM	4:00 AM	28	38	66
4:00 AM	5:00 AM	87	254	341
5:00 AM	6:00 AM	221	426	647
6:00 AM	7:00 AM	482	839	1321
7:00 AM	8:00 AM	798	930	1728
8:00 AM	9:00 AM	816	781	1597
9:00 AM	10:00 AM	599	599	1198
10:00 AM	11:00 AM	562	546	1108
11:00 AM	12:00 PM	536	535	1071
12:00 PM	1:00 PM	625	605	1230
1:00 PM	2:00 PM	643	644	1287
2:00 PM	3:00 PM	741	686	1427
3:00 PM	4:00 PM	1018	746	1764
4:00 PM	5:00 PM	1021	852	1873
5:00 PM	6:00 PM	996	896	1892
6:00 PM	7:00 PM	995	801	1796
7:00 PM	8:00 PM	745	600	1345
8:00 PM	9:00 PM	588	465	1053
9:00 PM	10:00 PM	383	380	763
10:00 PM	11:00 PM	315	235	550
11:00 PM	12:00 AM	180	150	330
AVERAGE WEEKDAY DAILY TRAFFIC		**12558**	**12158**	**24716**
	AADT	**11532**	**11164**	**22696**

NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

NYSDOT CLASSIFICATION DATA SUMMARY

ROADWAY: NYS ROUTE 9D
SEGMENT: FROM MAIN STREET TO RTS I-84 AND 52 UNDER
LOCATION: 55' S OF VAN NESS RD
START DATE OF COUNT: Monday, May 6, 2019
NYSDOT COUNT STATION: 820021
FUNCTIONAL CLASS: 16 - URBAN MINOR ARTERIAL
FACTOR GROUP: 30

VEHICLE CLASS	DIRECTIONAL VOLUMES		TOTAL VEHICLES	TOTAL AXLES
	NORTHBOUND	SOUTHBOUND		
F1	54	48	102	204
F2	10789	10027	20816	41632
F3	1279	1569	2848	5696
F4	94	93	187	468
F5	223	260	483	966
F6	42	37	79	237
F7	8	9	17	68
F8	17	17	34	119
F9	21	19	40	200
F10	3	11	14	84
F11	0	0	0	0
F12	0	0	0	0
F13	0	2	2	18
AVERAGE WEEKDAY TOTAL	**12530**	**12092**	**24622**	**49691**

	NORTHBOUND	SOUTHBOUND	TOTAL
% TRUCKS & BUSES (F3 - F13)	13%	17%	15%
% HEAVY VEHICLES (F4 - F13)	3%	4%	3%
% F3 - F7	3%	3%	3%
% F8 - F13	0%	0%	0%
% F1	0%	0%	0%
% F2	86%	83%	85%
% F3	10%	13%	12%
% F4	1%	1%	1%
% F5 - F7	2%	3%	2%

VEHICLE CLASSIFICATION CODES:

- **F1** MOTORCYCLES
- **F2** AUTOS (INCLUDING THOSE HAULING TRAILERS)
- **F3** 2 AXLE, 4-TIRE PICKUPS, VANS, MOTORHOMES (INCLUDING THOSE HAULING TRAILERS)
- **F4** BUSES
- **F5** 2 AXLE, 6-TIRE SINGLE UNIT TRUCKS
- **F6** 3 AXLE SINGLE UNIT TRUCKS
- **F7** 4 OR MORE AXLE SINGLE UNIT TRUCKS
- **F8** 4 OR LESS AXLE VEHICLES, ONE UNIT IS A TRUCK
- **F9** 5 AXLE DOUBLE UNIT VEHICLES, ONE UNIT IS A TRUCK
- **F10** 6 OR MORE AXLE DOUBLE UNIT VEHICLES, ONE UNIT IS A TRUCK
- **F11** 5 OR LESS AXLE MULTI-UNIT TRUCKS
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- **F13** 7 OR MORE AXLE MULTI-UNIT TRUCKS

NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

NYSDOT SPEED DATA SUMMARY

ROADWAY: NYS ROUTE 9D
SEGMENT: FROM MAIN STREET TO RTS I-84 AND 52 UNDER
LOCATION: 55' S OF VAN NESS RD
START DATE OF COUNT: Monday, May 6, 2019
NYSDOT COUNT STATION: 820021
FUNCTIONAL CLASS: 16 - URBAN MINOR ARTERIAL
POSTED SPEED LIMIT: 30
FACTOR GROUP: 30

SPEEDS (MPH)	DIRECTIONAL VOLUMES		TOTAL VOLUME
	NORTHBOUND	SOUTHBOUND	
0 - 20.0	985	230	1215
20.1 - 25.0	551	455	1006
25.1 - 30.0	1100	1690	2790
30.1 - 35.0	3426	4619	8045
35.1 - 40.0	4343	3865	8208
40.1 - 45.0	1716	1102	2818
45.1 - 50.0	344	166	510
50.1 - 55.0	73	16	89
55.1 - 60.0	14	2	16
60.1 - 65.0	1	0	1
65.1 - 70.0	1	0	1
70.1 - 75.0	1	0	1
75.1 - 80.0	0	0	0
80.1+	0	0	0
UNCLASSIFIED	0	0	0
AVERAGE SPEED (MPH)	**31**	**32**	**32**
50TH PERCENTILE SPEED (MPH)	**35**	**34**	**35**
85TH PERCENTILE SPEED (MPH)	**41**	**39**	**40**

NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

Colliers Engineering & Design

NYSDOT VOLUME DATA SUMMARY

ROADWAY: VERPLANCK AVENUE
SEGMENT: FROM FISHKILL AVENUE TO NYS ROUTE 9D ARTERIAL
LOCATION: 120' E OF N WALNUT ST
START DATE OF COUNT: Tuesday, May 14, 2019
NYSDOT COUNT STATION: 822024
FUNCTIONAL CLASS: 17 - URBAN MAJOR COLLECTOR
FACTOR GROUP: 30
SEASONAL FACTOR: 1.089

TIME PERIOD		DIRECTIONAL VOLUMES		TOTAL VOLUME
START	FINISH	EASTBOUND	WESTBOUND	
12:00 AM	1:00 AM	24	26	50
1:00 AM	2:00 AM	14	16	30
2:00 AM	3:00 AM	10	8	18
3:00 AM	4:00 AM	7	12	19
4:00 AM	5:00 AM	22	25	47
5:00 AM	6:00 AM	51	94	145
6:00 AM	7:00 AM	150	191	341
7:00 AM	8:00 AM	301	344	645
8:00 AM	9:00 AM	340	270	610
9:00 AM	10:00 AM	230	226	456
10:00 AM	11:00 AM	220	199	419
11:00 AM	12:00 PM	248	201	449
12:00 PM	1:00 PM	240	190	430
1:00 PM	2:00 PM	279	226	505
2:00 PM	3:00 PM	397	253	650
3:00 PM	4:00 PM	430	250	680
4:00 PM	5:00 PM	368	295	663
5:00 PM	6:00 PM	429	294	723
6:00 PM	7:00 PM	336	300	636
7:00 PM	8:00 PM	260	212	472
8:00 PM	9:00 PM	236	151	387
9:00 PM	10:00 PM	144	110	254
10:00 PM	11:00 PM	109	90	199
11:00 PM	12:00 AM	55	48	103
AVERAGE WEEKDAY DAILY TRAFFIC		**4900**	**4031**	**8931**
	AADT	**4500**	**3702**	**8202**

NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

NYSDOT CLASSIFICATION DATA SUMMARY

ROADWAY: VERPLANCK AVENUE
SEGMENT: FROM FISHKILL AVENUE TO NYS ROUTE 9D ARTERIAL
LOCATION: 120' E OF N WALNUT ST
START DATE OF COUNT: Tuesday, May 14, 2019
NYSDOT COUNT STATION: 822024
FUNCTIONAL CLASS: 17 - URBAN MAJOR COLLECTOR
FACTOR GROUP: 30

VEHICLE CLASS	DIRECTIONAL VOLUMES		TOTAL VEHICLES	TOTAL AXLES
	EASTBOUND	WESTBOUND		
F1	90	91	181	362
F2	3991	3308	7299	14598
F3	554	441	995	1990
F4	46	27	73	183
F5	89	75	164	328
F6	5	3	8	24
F7	34	21	55	220
F8	74	66	140	490
F9	8	3	11	55
F10	1	0	1	6
F11	0	0	0	0
F12	0	0	0	0
F13	4	2	6	53
AVERAGE WEEKDAY TOTAL	**4896**	**4037**	**8933**	**18308**

	EASTBOUND	WESTBOUND	TOTAL
% TRUCKS & BUSES (F3 - F13)	17%	16%	16%
% HEAVY VEHICLES (F4 - F13)	5%	5%	5%
% F3 - F7	4%	3%	3%
% F8 - F13	2%	2%	2%
% F1	2%	2%	2%
% F2	82%	82%	82%
% F3	11%	11%	11%
% F4	1%	1%	1%
% F5 - F7	3%	2%	3%

VEHICLE CLASSIFICATION CODES:

- **F1** MOTORCYCLES
- **F2** AUTOS (INCLUDING THOSE HAULING TRAILERS)
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NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

NYSDOT SPEED DATA SUMMARY

ROADWAY: VERPLANCK AVENUE
SEGMENT: FROM FISHKILL AVENUE TO NYS ROUTE 9D ARTERIAL
LOCATION: 120' E OF N WALNUT ST
START DATE OF COUNT: Tuesday, May 14, 2019
NYSDOT COUNT STATION: 822024
FUNCTIONAL CLASS: 17 - URBAN MAJOR COLLECTOR
POSTED SPEED LIMIT: 30
FACTOR GROUP: 30

SPEEDS (MPH)	DIRECTIONAL VOLUMES		TOTAL VOLUME
	EASTBOUND	WESTBOUND	
0 - 20.0	413	193	606
20.1 - 25.0	1299	854	2153
25.1 - 30.0	2177	1981	4158
30.1 - 35.0	872	865	1737
35.1 - 40.0	113	121	234
40.1 - 45.0	10	13	23
45.1 - 50.0	1	4	5
50.1 - 55.0	1	0	1
55.1 - 60.0	1	0	1
60.1 - 65.0	0	0	0
65.1 - 70.0	0	0	0
70.1 - 75.0	1	0	1
75.1 - 80.0	0	0	0
80.1+	0	0	0
UNCLASSIFIED	3	3	6
AVERAGE SPEED (MPH)	**25**	**26**	**25**
50TH PERCENTILE SPEED (MPH)	**27**	**28**	**27**
85TH PERCENTILE SPEED (MPH)	**32**	**32**	**32**

NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

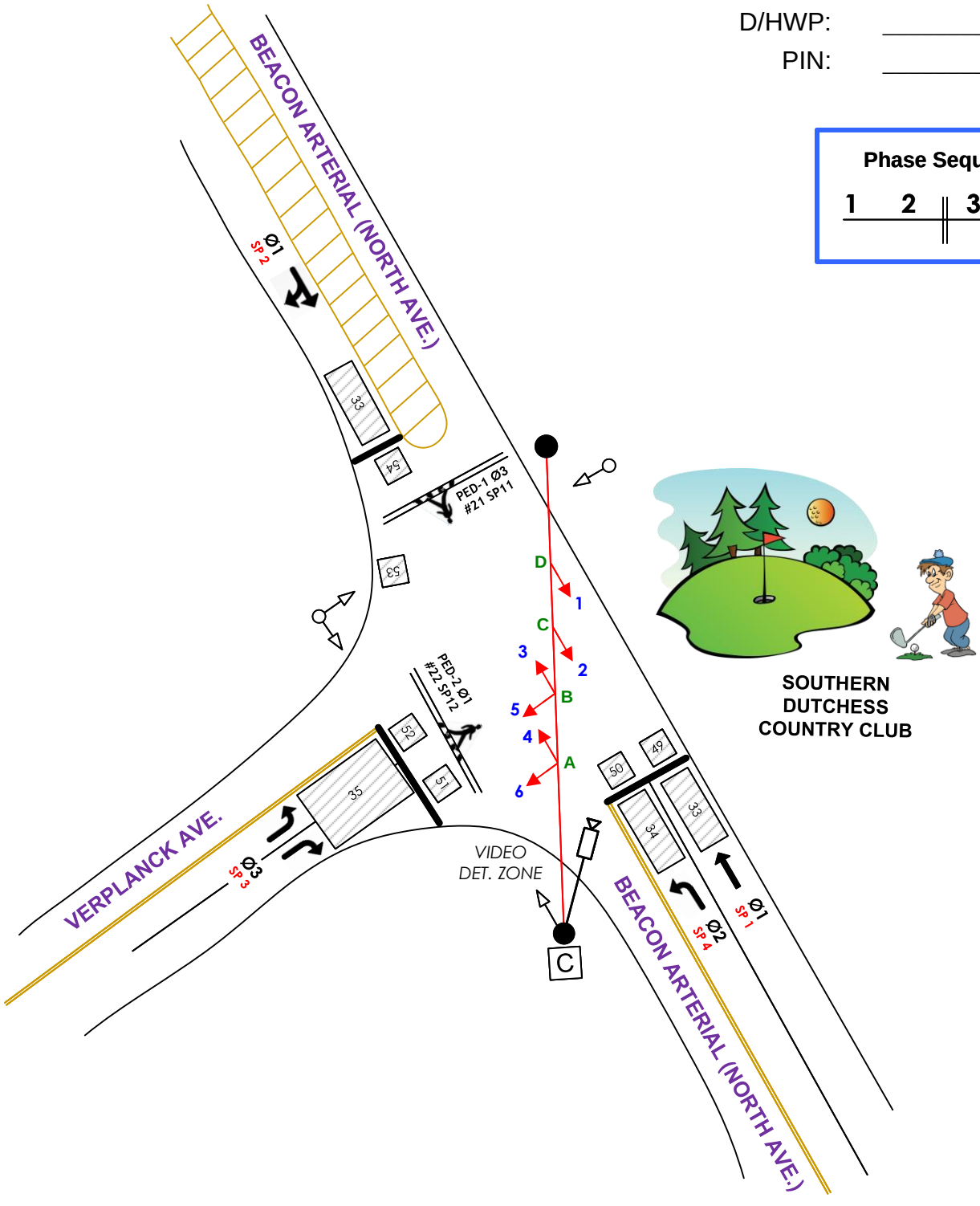
Appendix E | NYSDOT Traffic Signal Timing Plans

D-24A
Signal #

STATE OF NEW YORK - DEPARTMENT OF TRANSPORTATION
TRAFFIC AND SAFETY DIVISION
in the City of BEACON

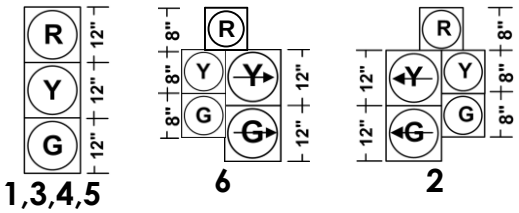
Signal: **D-24A**
File: 13.01-BEACON ART.
D/HWP: _____
PIN: _____

Phase Sequence
1 2 3



SOUTHERN DUTCHESS COUNTRY CLUB

TABLE OF FACES



NORTH



Printed: 10/13/2022

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	3	15	3			15		3
Gap, Ext	2	3	2			3		2
Max 1	30	45	30			45		30
Max 2								
Yel Clearance	4	4	4	3.5	3.5	4	3.5	4
Red Clearance	2	2	2	1.5	1.5	2	1.5	2
Walk		7	7					7
Ped Clearance		21	13					13
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	ON	ON	ON			ON		ON
Min Recall		ON				ON		
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		ON	ON			ON		ON
Enable Simul Gap	ON	ON	ON	ON	ON	ON	ON	ON
Gaurantee Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay			10					

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	0	0	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	0	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	115	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split		1	2	3	4	5	6	7	8	Split		1	2	3	4	5	6	7	8
1	Coor	0	0	0	0	0	0	0	0	13	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
2	Coor	0	0	0	0	0	0	0	0	14	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
3	Coor	0	0	0	0	0	0	0	0	15	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
4	Coor	0	0	0	0	0	0	0	0	16	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
5	Coor	0	0	0	0	0	0	0	0	17	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
6	Coor	0	0	0	0	0	0	0	0	18	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
7	Coor	0	0	0	0	0	0	0	0	19	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
8	Coor	0	0	0	0	0	0	0	0	20	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
9	Coor	0	0	0	0	0	0	0	0	21	Coor	25	50	40	0	0	75	0	40
		NON	NON	NON	NON	NON	NON	NON	NON		2	NON	Max	NON	NON	NON	NON	NON	NON
10	Coor	0	0	0	0	0	0	0	0	22	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
11	Coor	0	0	0	0	0	0	0	0	23	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
12	Coor	0	0	0	0	0	0	0	0	24	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

2924

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	Red	ON
2	1	Green	ON
3	1	Red	ON
4	1	Red	OFF
5	2	Red	OFF
6	2	Green	ON
7	2	Red	OFF
8	2	Red	ON

Coord Modes [2.1]

Test OpMode	254
Correction	SHRT/LNG
Maximum	MAX INH
Force-Off	FIXED
Closed Loop	ON
Stop-in-Walk	ON
Auto Reset	ON
Expand Splt	
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	PH_OVLP
Flash Yel	45
Flash Red	20

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	User
Loc Flsh Start	ON
Start Flash(s)	0
Start AllRed(s)	0
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

Overlap 1-16 Program Parms & Parm+ [1.5.2.1] [1.5.2.2]

Overlap Conflict Lock: OFF | Overlap Lock Inhibit: OFF | Parent Ph Clearance: ON | Extra Included Ph: OFF

	Included Ø	1	3							Type	NORMAL		Included Ø									Type	NORMAL
1	Modifier Ø	3								Grn		9	Modifier Ø									Grn	
	Conflict Ø	3								Yel	4		Conflict Ø									Yel	3.5
A	Conflict Olap									Red	2	I	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
	Included Ø									Type	NORMAL		Included Ø									Type	NORMAL
2	Modifier Ø									Grn		10	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
B	Conflict Olap									Red	1.5	J	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
	Included Ø									Type	NORMAL		Included Ø									Type	NORMAL
3	Modifier Ø									Grn		11	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
C	Conflict Olap									Red	1.5	K	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
	Included Ø									Type	NORMAL		Included Ø									Type	NORMAL
4	Modifier Ø									Grn		12	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
D	Conflict Olap									Red	1.5	L	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
	Included Ø									Type	NORMAL		Included Ø									Type	NORMAL
5	Modifier Ø									Grn		13	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
E	Conflict Olap									Red	1.5	M	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
	Included Ø									Type	NORMAL		Included Ø									Type	NORMAL
6	Modifier Ø									Grn		14	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
F	Conflict Olap									Red	1.5	N	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
	Included Ø									Type	NORMAL		Included Ø									Type	NORMAL
7	Modifier Ø									Grn		15	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
G	Conflict Olap									Red	1.5	O	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
	Included Ø									Type	NORMAL		Included Ø									Type	NORMAL
8	Modifier Ø									Grn		16	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
H	Conflict Olap									Red	1.5	P	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	

Channel Settings [1.8.1]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Phase / Olap #	1	2	3			6			1	2	3													
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	PED	OLP	PED	PED	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Channel Flash	DRK	YEL	Red	Red	Red	YEL	DRK	DRK	DRK	Red	Red	Red	Red	Red	Red	Red	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								

Channel+ Settings [1.8.4]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Flash Red+																								
Flash Yellow+																								
Flash Green+																								
Flash Inh Red+																								
Olap Ovrd																								

Coord Transition, CoorPhs [2.5]

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	RetHld	Float	Min Veh Perm	Min Ped Perm
1	12	22							EndGRN				
2	12	22							EndGRN				
3	12	22							EndGRN				
4	12	22							EndGRN				
5	12	22							EndGRN				
6	12	22							EndGRN				
7	12	22							EndGRN				
8	12	22							EndGRN				
9	12	22							EndGRN				
10	12	22							EndGRN				
11	12	22							EndGRN				
12	12	22							EndGRN				
13	12	22							EndGRN				
14	12	22							EndGRN				
15	12	22							EndGRN				
16	12	22							EndGRN				
17	12	22							EndGRN				
18	12	22							EndGRN				
19	12	22							EndGRN				
20	12	22							EndGRN				
21	12	22		3	8				EndGRN				
22	12	22							EndGRN				
23	12	22							EndGRN				
24	12	22							EndGRN				
25									BegGRN				
26									BegGRN				
27									BegGRN				
28									BegGRN				
29									BegGRN				
30									BegGRN				
31									BegGRN				
32									BegGRN				
33									BegGRN				
34									BegGRN				
35									BegGRN				
36									BegGRN				
37									BegGRN				
38									BegGRN				
39									BegGRN				
40									BegGRN				
41									BegGRN				
42									BegGRN				
43									BegGRN				
44									BegGRN				
45									BegGRN				
46									BegGRN				
47									BegGRN				
48									BegGRN				

Channel Params[1.8.3]

C1 IO Mode	User	Single BIU Map	DEFAULT	Invert Rail Input	OFF

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1	1	6	1				45	50	15
2							45	50	2
3	3		3				45	50	15
4	3		3				45	50	15
5							45	50	2
6							45	50	2
7							45	50	2
8							45	50	2
9							45	50	2
10							45	50	2
11	1	6	2				45	50	15
12							45	50	2
13							45	50	2
14							45	50	2
15							45	50	2
16							45	50	2
17							45	50	2
18							45	50	2
19							45	50	
20							45	50	
21							45	50	
22							45	50	
23							45	50	
24							45	50	
25							45	50	
26							45	50	
27							45	50	
28							45	50	
29	1		15				45	50	
30							45	50	
31							45	50	
32							45	50	

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
33							45	50	
34							45	50	
35	6						45	50	
36							45	50	
37							45	50	
38							45	50	
39	2						45	50	
40							45	50	
41							45	50	
42							45	50	
43							45	50	
44							45	50	
45							45	50	
46							45	50	
47							45	50	
48							45	50	
49							45	50	
50							45	50	
51							45	50	
52							45	50	
53							45	50	
54							45	50	
55							45	50	
56							45	50	
57							45	50	
58							45	50	
59							45	50	
60							45	50	
61							45	50	
62							45	50	
63							45	50	
64							45	50	

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	ON	ON		ON				
2	ON	ON		ON				
3	ON	ON		ON				
4	ON	ON		ON				
5	ON	ON		ON				
6	ON	ON		ON				
7	ON	ON		ON				
8	ON	ON		ON				
9	ON	ON		ON				
10	ON	ON		ON				
11	ON	ON		ON				
12	ON	ON		ON				
13	ON	ON		ON				
14	ON	ON		ON				
15	ON	ON		ON				
16	ON	ON		ON				
17	ON	ON		ON				
18	ON	ON		ON				
19	ON	ON		ON				
20	ON	ON		ON				
21	ON	ON		ON				
22	ON	ON		ON				
23	ON	ON		ON				
24	ON	ON		ON				
25	ON	ON		ON				
26	ON	ON		ON				
27	ON	ON		ON				
28	ON	ON		ON				
29	ON	ON		ON				
30	ON	ON		ON				
31	ON	ON		ON				
32	ON	ON		ON				

Vehicle Options 1-64 [5.2]

Det #	vol	occ	Yell Lock	Red Lock	Ext	Add Init	Que	Call
33					ON	ON		ON
34					ON	ON		ON
35					ON	ON		ON
36					ON	ON		ON
37					ON	ON		ON
38					ON	ON		ON
39					ON	ON		ON
40					ON	ON		ON
41					ON	ON		ON
42					ON	ON		ON
43					ON	ON		ON
44					ON	ON		ON
45					ON	ON		ON
46					ON	ON		ON
47					ON	ON		ON
48					ON	ON		ON
49					ON	ON		ON
50					ON	ON		ON
51					ON	ON		ON
52					ON	ON		ON
53					ON	ON		ON
54					ON	ON		ON
55					ON	ON		ON
56					ON	ON		ON
57					ON	ON		ON
58					ON	ON		ON
59					ON	ON		ON
60					ON	ON		ON
61					ON	ON		ON
62					ON	ON		ON
63					ON	ON		ON
64					ON	ON		ON

Parameters+ 1-64 [5.3]

Det #	oc G	oc Y	oc R	Dlay 1	Dlay 2	Type	Src
1						NORM	
2						NORM	
3						NORM	
4						NORM	
5						NORM	
6						NORM	
7						NORM	
8						NORM	
9						NORM	
10						NORM	
11						NORM	
12						NORM	
13						NORM	
14						NORM	
15						NORM	
16						NORM	
17						NORM	
18						NORM	
19						NORM	
20						NORM	
21						NORM	
22						NORM	
23						NORM	
24						NORM	
25						NORM	
26						NORM	
27						NORM	
28						NORM	
29						NORM	1
30						NORM	
31						NORM	
32						NORM	

Parameters+ 1-64 [5.3]

Det #	occ Grn	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src
33						NORM	
34						NORM	
35						NORM	
36						NORM	
37						NORM	
38						NORM	
39						NORM	
40						NORM	
41						NORM	
42						NORM	
43						NORM	
44						NORM	
45						NORM	
46						NORM	
47						NORM	
48						NORM	
49						NORM	
50						NORM	
51						NORM	
52						NORM	
53						NORM	
54						NORM	
55						NORM	
56						NORM	
57						NORM	
58						NORM	
59						NORM	
60						NORM	
61						NORM	
62						NORM	
63						NORM	
64						NORM	

Ped Det Parms [5.4]

Det #	Call Ø	No Act	Max Pres	Err Cnt
1	3		15	
2	2		15	
3			15	
4			15	
5			15	
6			15	
7			15	
8			15	

Unit Paramters [1.2.1]

TS2 Det Faults	ON

Vol/Occ Report Parm [1.5.8]

Vol/Occ Period Minutes	0
Vol/Occ Period Minutes	15

Preemption Times [3.1], Options+ [3.6]

Pre #	Enable	Type	Output	Delay	MinDura
1	ON	RAIL	Dwell		
2	ON	RAIL	Dwell		
3	ON	EMERG	Dwell		
4	ON	EMERG	Dwell		
5	ON	EMERG	Dwell		
6	ON	EMERG	Dwell		

Pre #	MaxPres	MinGrn	MinWlk	PedClr	Co+Pre
1					ON
2					ON
3					ON
4					ON
5					ON
6					ON

Pre #	Track Grn	Min Dwell	Ext Dwell	PedClr+	Yel
1		2			
2		2			
3		2			
4		2			
5		2			
6		2			

Pre #	Red	Pattern	Skip
1			OFF
2			OFF
3			OFF
4			OFF
5			OFF
6			OFF

Low Priority Preempts

Pre #	Type	Min	Max
7	OFF		
8	OFF		
9	OFF		
10	OFF		

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	PRE
Max Seek Track Time	
Max Seek Dwell Time	

Channel Parameters [1.8.3]

D Conn Mappings	OFF
Pre Invert Rail Input	None

Track Clear Phases [3.2], Track Clear Overlaps+ [3.5]

Pre #	Track Phases	Track Overlaps
1		
2		
3		
4		
5		
6		

Dwell Phases [3.2] and Overlaps+ [3.5]

Pre #		
1	Phases	
	Overlaps	
	Peds	
2	Phases	
	Overlaps	
	Peds	
3	Phases	
	Overlaps	
	Peds	
4	Phases	
	Overlaps	
	Peds	
5	Phases	
	Overlaps	
	Peds	
6	Phases	
	Overlaps	
	Peds	

Exit Phases [3.2]

Pre #	Exit Phase
1	
2	
3	
4	
5	
6	

Preemption 1, Options+ [3.6]

Pre #	Lock	Override Auto Flsh	Override Higher	Flsh Dwell	Link
1	ON	ON	ON	OFF	
2	ON	ON	ON	OFF	
3	ON	ON	ON	OFF	
4	ON	ON	ON	OFF	
5	ON	ON	ON	OFF	
6	ON	ON	ON	OFF	

Alt# 1 Times Table [1.1.6.1]

Column#.. ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1]

Column#.. ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1]

Column#.. ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Annual Schedule [4.3]	Month of Year												Day of Week							Date																											Day	Link
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan	To
1																																																	1	
2																																																		1	
3																																																	1	
4																																																	1	
5																																																	1	
6																																																	1	
7																																																	1	
8																																																	1	
9																																																	1	
10																																																	1	
11																																																	1	
12																																																	1	
13																																																	1	
14																																																	1	
15																																																	1	
16																																																	1	
17																																																	1	
18																																																	1	
19																																																	1	
20																																																	1	
21																																																	1	
22																																																	1	
23																																																	1	
24																																																	1	

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Day Plans [4.4]

Day Plan 1

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 2

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 3

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 4

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 5

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 6

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 7

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 8

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 9

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 10

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 11

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 12

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 13

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 14

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 15

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Action Table [4.5]

Act#	Pat#	A1	A2	A3	S1	S2	S3	S4	S5	S6	S7	S8
1	1											
2	2											
3	3											
4	4											
5	5											
6	6											
7	7											
8	8											
9	9											
10	10											
11	11											
12	12											
13	13											
14	14											
15	15											
16	16											
17	17											
18	18											
19	19											
20	20											
21	21											
22	22											
23	23											
24	24											
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
48												
98												
99												
100	255											

Coord Alternate Tables - Pat+ [2.6]

Pat#	ØOpt	ØTime	DetG	Call Inh	CIC	CNA1	Overlap Off 1	2	3	4	5	6	7	8	Dia	Max2
1															DFT	
2															DFT	
3															DFT	
4															DFT	
5															DFT	
6															DFT	
7															DFT	
8															DFT	
9															DFT	
10															DFT	
11															DFT	
12															DFT	
13															DFT	
14															DFT	
15															DFT	
16															DFT	
17															DFT	
18															DFT	
19															DFT	
20															DFT	
21															DFT	
22															DFT	
23															DFT	
24															DFT	
25															DFT	
26															DFT	
27															DFT	
28															DFT	
29															DFT	
30															DFT	
31															DFT	
32															DFT	
33															DFT	
34															DFT	
35															DFT	
36															DFT	
37															DFT	
38															DFT	
39															DFT	
40															DFT	
41															DFT	
42															DFT	
43															DFT	
44															DFT	
45															DFT	
46															DFT	
47															DFT	
48															DFT	

#	Event / Alarm	Ev	Alr
1	Power Up Alarm.	ON	ON
2	Stop Timing	ON	ON
3	TS1 Cabinet Door		
4	Coordination Failure	ON	ON
5	External Alarm # 1	ON	ON
6	External Alarm # 2	ON	ON
7	External Alarm # 3		
8	External Alarm # 4		
9	Closed Loop Disabled	ON	
10	External Alarm # 5		
11	External Alarm # 6		
12	Manual Control Enable	ON	ON
13	Coord Free Input		
14	Local Flash Input	ON	ON
15	MMU Flash		
16	CMU Flash		
17	Cycle Fault	ON	
18	Cycle Failure	ON	
19	Coordination Fault	ON	
20	Controller Fault	ON	ON
21	Detector SDLC Failure		
22	MMU SDLC Failure		
23	Critical SDLC Failure		
24	Reserved		
25	EEPROM CRC Fault	ON	ON
26	Detector Diagnostic Failure		
27	BIU Detector Failure	ON	ON
28	Queue detector alarm	ON	
29	Ped Detector Fault	ON	
30	Coord Diagnostic Fault		
41	TempAlert Probe Ch. A		
42	TempAlert Probe Ch. B		
47	Coord Active		
48	Preempt Active	ON	
49	Preempt 1 Input	ON	
50	Preempt 2 Input	ON	
51	Preempt 3 Input	ON	
52	Preempt 4 Input	ON	
53	Preempt 5 Input	ON	
54	Preempt 6 Input	ON	
55	Preempt 7 Input	ON	
56	Preempt 8 Input	ON	
57	Preempt 9 Input	ON	
58	Preempt 10 Input	ON	
61	In Transition	ON	
81	FIO Status Alarm		

Call Phases[1.1.5]

Ø	Phases Called By Ø			
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

Redirect Phases[1.1.5]

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

Inhibit Phases[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

Alt Call & Redirect # 1 [1.1.6.3]

Col	Ø	Phases Called By Ø			
1					
2					
3					
4					
5					
6					
7					
8					

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 1 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Alt Call & Redirect # 2 [1.1.6.3]

Col	Ø	Phases Called By Ø			
1					
2					
3					
4					
5					
6					
7					
8					

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 2 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Unit Parameters [1.2.1]

Allow Skip Yellow	OFF	Max Cycle Time	
TOD Dim Enable	OFF	Cycle Fault Action	Alarm
Tone Disable	OFF		
Diamond Mode	4Ph		
Backup Time (s)	900		
Disable Init Ped	OFF		
Cycle Fault Action	Alarm		
Enable Run Timer	ON		

Auto Flash Phase/Olap Settings [1.4.2]

Yel Ø								
Yel (olaps)								

C1-USER IO Map [1.8.9.1 In]

I1-1	1	Veh Call 1
I1-2	189	Unused
I1-3	3	Veh Call 3
I1-4	4	Veh Call 4
I1-5	189	Unused
I1-6	189	Unused
I1-7	189	Unused
I1-8	189	Unused
I2-1	129	Ped Call 1
I2-2	130	Ped Call 2
I2-3	11	Veh Call 11
I2-4	189	Unused
I2-5	189	Unused
I2-6	189	Unused
I2-7	189	Unused
I2-8	189	Unused
I3-1	189	Unused
I3-2	189	Unused
I3-3	189	Unused
I3-4	189	Unused
I3-5	189	Unused
I3-6	189	Unused
I3-7	189	Unused
I3-8	189	Unused
I4-1	189	
I4-2		
I4-3		
I4-4		
I4-5	189	Unused
I4-6	189	Unused
I4-7	229	33xCMUStop
I4-8	228	33xFlashSns
I5-1	189	Unused
I5-2	189	Unused
I5-3	189	Unused
I5-4	189	Unused
I5-5	189	Unused
I5-6	189	Unused
I5-7	189	Unused
I5-8	189	Unused
I6-1	189	Unused
I6-2	189	Unused
I6-3	189	Unused
I6-4	189	Unused
I6-5	189	Unused
I6-6	189	Unused
I6-7	189	Unused
I6-8	189	Unused

C1-USER IO Map [1.8.9.2 Out]

O1-1	1	Ch1 Red
O1-2	49	Ch1 Green
O1-3	2	Ch2 Red
O1-4	26	Ch2 Yellow
O1-5	50	Ch2 Green
O1-6	3	Ch3 Red
O1-7	27	Ch3 Yellow
O1-8	51	Ch3 Green
O2-1	4	Ch4 Red
O2-2	52	Ch4 Green
O2-3	5	Ch5 Red
O2-4	29	Ch5 Yellow
O2-5	53	Ch5 Green
O2-6	6	Ch6 Red
O2-7	30	Ch6 Yellow
O2-8	54	Ch6 Green
O3-1	7	Ch7 Red
O3-2	55	Ch7 Green
O3-3	8	Ch8 Red
O3-4	32	Ch8 Yellow
O3-5	56	Ch8 Green
O3-6	9	Ch9 Red
O3-7	33	Ch9 Yellow
O3-8	57	Ch9 Green
O4-1	10	Ch10 Red
O4-2	58	Ch10 Green
O4-3	11	Ch11 Red
O4-4	35	Ch11 Yellow
O4-5	59	Ch11 Green
O4-6	12	Ch12 Red
O4-7	36	Ch12 Yellow
O4-8	60	Ch12 Green
O5-1	28	Ch4 Yellow
O5-2	34	Ch10 Yellow
O5-3	25	Ch1 Yellow
O5-4	31	Ch7 Yellow
O5-5	39	Ch15 Yellow
O5-6	63	Ch15 Green
O5-7	115	Not Used
O5-8	114	Watchdog
O6-1	115	Not Used
O6-2	115	Not Used
O6-3	13	Ch13 Red
O6-4	37	Ch13 Yellow
O6-5	61	Ch13 Green
O6-6	14	Ch14 Red
O6-7	38	Ch14 Yellow
O6-8	62	Ch14 Green

C1-USER IO Map [1.8.9.2 Out]

O7-1	40	Ch16 Yellow
O7-2	16	Ch16 Red
O7-3	64	Ch16 Green
O7-4	115	Not Used
O7-5	115	Not Used
O7-6	115	Not Used
O7-7	115	Not Used
O7-8	15	Ch15 Red

C11S-USER IO Map [1.8.9.1 In]

I4-1		
I4-2		
I4-3		
I4-4		
I7-1	189	Unused
I7-2	189	Unused
I7-3	189	Unused
I7-4	189	Unused
I7-5	189	Unused
I7-6	189	Unused
I7-7	189	Unused
I7-8	189	Unused
I8-1	189	Unused
I8-2	189	Unused
I8-3	189	Unused
I8-4	189	Unused
I8-5	189	Unused
I8-6	189	Unused
I8-7	189	Unused
I8-8	189	Unused

C11S-USER IO Map [1.8.9.2 Out]

O8-1	115	Not Used
O8-2	115	Not Used
O8-3	115	Not Used
O8-4	115	Not Used
O8-5	115	Not Used
O8-6	115	Not Used
O8-7	115	Not Used
O8-8	115	Not Used

IO Logic [1.8.7]

Op1	Result		O1Fcn	Inv1	Src1	IO1	Fun1	O2Fcn	Inv2	Src2	IO2	Fun2	O3Fcn	Inv3	Src3	IO3	Fun3	Dly	Sec
I	0	□	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	□	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	□	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	□	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	□	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	□	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	□	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	□	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	□	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0	□	----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0

Security Access Levels [8.2]

1	SWLOAD
2	SECURE
3	None
4	None
5	None
6	None
7	None
8	None
9	None
10	None
11	None
12	None
13	None
14	None
15	None
16	None
17	None
18	None
19	None
20	None
21	None

22	None
23	None
24	None
25	None
26	None
27	None
28	None
29	None
30	None
31	None
32	None
33	None
34	None
35	None
36	None
37	None
38	None
39	None
40	None
41	None
42	None

43	None
44	None
45	None
46	None
47	None
48	None
49	None
50	None
51	None
52	None
53	None
54	None
55	None
56	None
57	None
58	None
59	None
60	None
61	None
62	None
63	None
64	None

Com Parameters [6.1]

Station ID	2924
Group ID	0
Master ID	0
Backup Time	900

SysUp Modem [6.1]

Enable Modem	None
Idle Time	0
Dial Time	0
Tel:	
Alt:	

2070 Port Parms [6.2]

Port	Baud Rate	FCM
SP1	9600	6
SP2	9600	6
SP3	19200	6
SP4	38400	6
SP5	1200	0
SP6	1200	0
SP7	1200	0
SP8	1200	0

2070 IP 1 Addressing [6.5]

	Addressing			
Addr	192	168	0	100
Mask	255	255	255	0
Brdcst	0	0	0	0
GtWay	192	168	0	1
Port	###			

2070 IP 2 Addressing [6.5]

	Addressing			
Addr	192	168	0	100
Mask	255	255	255	0
Brdcst	0	0	0	0
GtWay	192	168	0	1
Port	5001			

2070 Port Binding Ports [6.6]

	Port	Echo	Mode
ASYNC1	SP1	None	0
ASYNC2	SP2	None	0
ASYNC3	SP8	None	0
ASYNC4	SP4	None	0
SYNC1	SP5S	SYNC3	OFF
SYNC2	SP3S	SYNC4	OFF

2070 Port Binding Functions [6.6]

Functio	Channel	Functior	Channel
TS2/CVN	ASYNC3	SYSUp	ASYNC2
CMU/MN	None	SYSDow	ASYNC1
Opticom	None	Shell	None
Loop De	None		
GPS	None		

D-24A
Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

Signal: **D-24A**
File: 13.01-BEACON ART.
D/HWP:
PIN:

TABLE OF SWITCH PACKS

Date: 4/25/2022

SWITCH PACK	FUNCTION	INDICATIONS	FACE	TERMINAL	WIRE COLOR CODE	FACE	TERMINAL	WIRE COLOR CODE
1	Ø1	Red	1	SP 1 R	14/5C-D-R	2	SP 1 R	14/10C-C-R
		Yellow		SP 1 Y	14/5C-D-O		SP 1 Y	14/10C-C-O
		Green		SP 1 G	14/5C-D-G		SP 1 G	14/10C-C-G
		Ground Wire		Grnd Bus	14/5C-D-W		Grnd Bus	14/10C-C-W
2	Ø1	Red	3	SP 2 R	14/10C-B-R	4	SP 2 R	14/15C-A-R
		Yellow		SP 2 Y	14/10C-B-O		SP 2 Y	14/15C-A-O
		Green		SP 2 G	14/10C-B-G		SP 2 G	14/15C-A-G
		Ground Wire		Grnd Bus	14/10C-B-W		Grnd Bus	14/15C-A-W
3	Ø3	Red	5	SP 3 R	14/10C-B-R/B	6	SP 3 R	14/15C-A-R/B
		Yellow		SP 3 Y	14/10C-B-O/B		SP 3 Y	14/15C-A-O/B
		Green		SP 3 G	14/10C-B-G/B		SP 3 G	14/15C-A-G/B
		Ground Wire		Grnd Bus	14/10C-B-W/B		Grnd Bus	14/15C-A-W/B
4.	Ø2	- - - - -	2	SP 4 R	- - - - - -		SP 4 R	
		⇐		SP 4 Y	14/10C-C-O/B		SP 4 Y	
		←		SP 4 G	14/10C-C-G/B		SP 4 G	
		Ground Wire		Grnd Bus	14/10C-C-W/B		Grnd Bus	
5.	Ø3	- - - - -	6	SP 5 R	- - - - - -		SP 5 R	
		⇒		SP 5 Y	14/15C-A-BL/W		SP 5 Y	
		→		SP 5 G	14/15C-A-G/W		SP 5 G	
		Ground Wire		Grnd Bus	14/15C-A-B/W		Grnd Bus	
6.				SP 6 R			SP 6 R	
				SP 6 Y			SP 6 Y	
				SP 6 G			SP 6 G	
		Ground Wire		Grnd Bus			Grnd Bus	
7.				SP 7 R			SP 7 R	
				SP 7 Y			SP 7 Y	
				SP 7 G			SP 7 G	
		Ground Wire		Grnd Bus			Grnd Bus	
8				SP 8 R			SP 8 R	
				SP 8 Y			SP 8 Y	
				SP 8 G			SP 8 G	
		Ground Wire		Grnd Bus			Grnd Bus	
9				SP 9 R			SP 9 R	
				SP 9 Y			SP 9 Y	
				SP 9 G			SP 9 G	
		Ground Wire		Grnd Bus			Grnd Bus	
10				SP 10 R			SP 10 R	
				SP 10 Y			SP 10 Y	
				SP 10 G			SP 10 G	
		Ground Wire		Grnd Bus			Grnd Bus	
11.	PED-1 Ø3		21	SP 11 R	14/5C-1P-R		SP 11 R	
				SP 11 Y	- - - - - -		SP 11 Y	
				SP 11 G	14/5C-1P-G		SP 11 G	
		Ground Wire		Grnd Bus	14/5C-1P-W		Grnd Bus	
12.	PED-2 Ø1		22	SP 12 R	14/5C-2P-R		SP 12 R	
				SP 12 Y	- - - - - -		SP 12 Y	
				SP 12 G	14/5C-2P-G		SP 12 G	
		Ground Wire		Grnd Bus	14/5C-2P-W		Grnd Bus	
13				SP 13 R			SP 13 R	
				SP 13 Y			SP 13 Y	
				SP 13 G			SP 13 G	
		Ground Wire		Grnd Bus			Grnd Bus	
14.				SP 14 R			SP 14 R	
				SP 14 Y			SP 14 Y	
				SP 14 G			SP 14 G	
		Ground Wire		Grnd Bus			Grnd Bus	
15				SP 15 R			SP 15 R	
				SP 15 Y			SP 15 Y	
				SP 15 G			SP 15 G	
		Ground Wire		Grnd Bus			Grnd Bus	
16				SP 16 R			SP 16 R	
				SP 16 Y			SP 16 Y	
				SP 16 G			SP 16 G	
		Ground Wire		Grnd Bus			Grnd Bus	

D-24A
Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

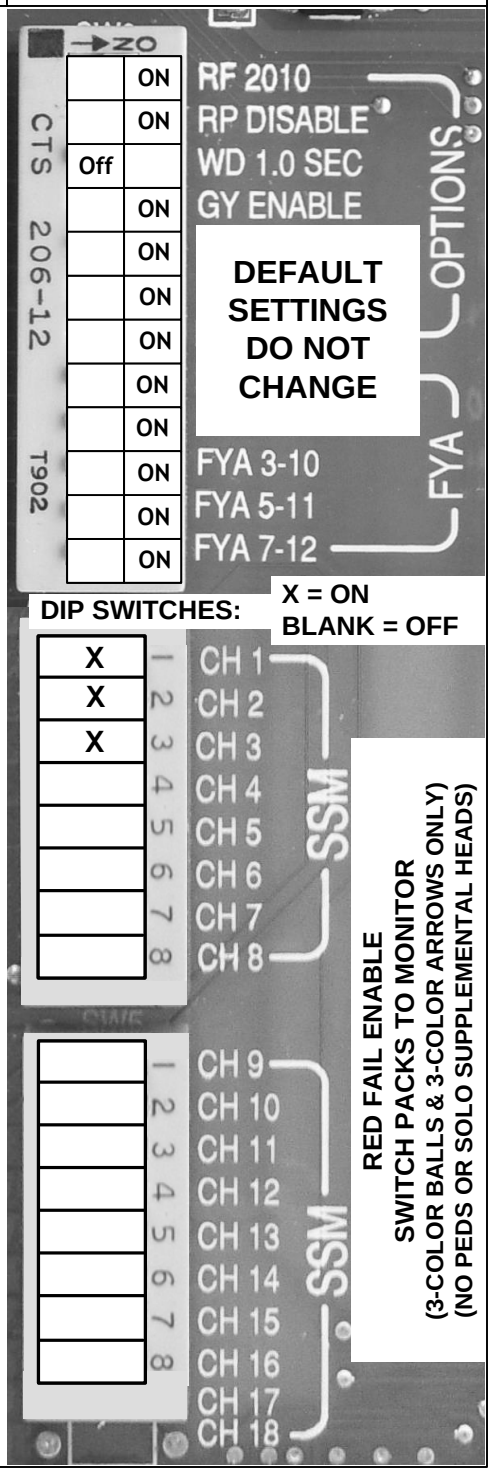
Signal: **D-24A**
File: 13.01-BEACON ART.
D/HWP:
PIN:
Date: 4/25/2022

TRAFFIC SIGNAL MONITOR PROGRAMMING

CONFLICT MONITOR DIODES TO BE CUT (SWITCH PACKS TO RUN TOGETHER)		
1-2	3-5	
1-4	3-11	
2-4	5-11	
1-12		
2-12		

YELLOW DISABLE: WIRE JUMPERS TO BE INSTALLED FOR PEDS	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	X
12	X
13	
14	
15	
16	

210NYR MONITOR BOARD
(SWITCH PACKS TO MONITOR)



CURRENT MONITOR BOARD (IF USED)

CURRENT MONITOR DIODES TO BE CUT (SWITCH PACKS TO *NOT* MONITOR)
4-18

Notes:

D-24A
Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

Signal: **D-24A**
File: 13.01-BEACON ART.
D/HWP:
PIN:

Date: 4/25/2022

TABLE OF INPUT WIRING

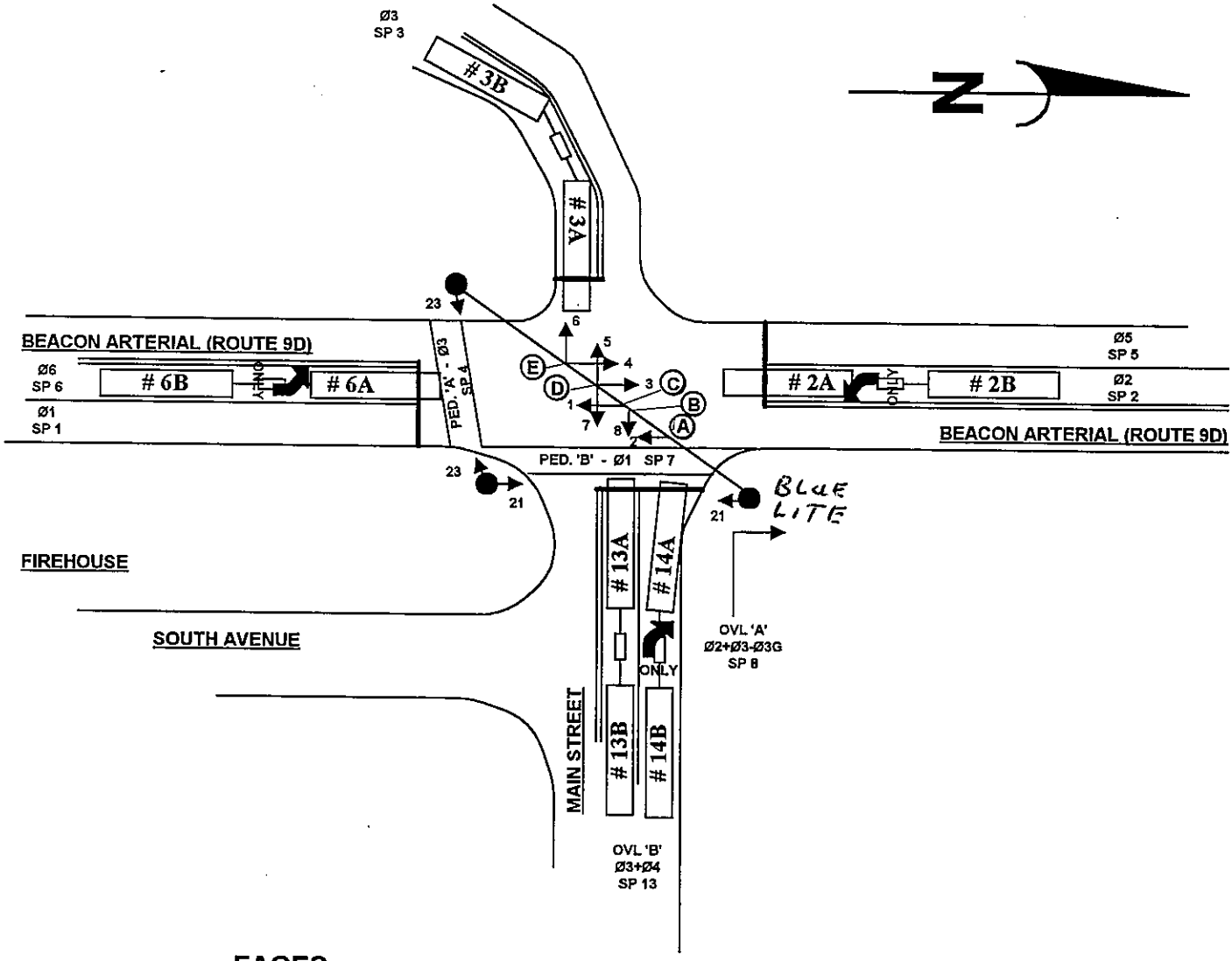
SDLC CHANNEL	FUNCTION	DET. ZONE NO.	DET. TYPE	DET. AN OVER	REMARKS
33	**Ø1**	33	GRIDSMART		PRESENCE
34	**Ø2**	34	GRIDSMART		PRESENCE
35	**Ø3**	35	GRIDSMART		PRESENCE
49	**Ø1 (NORTHBOUND-STRAIGHT)**	49	GRIDSMART		COUNT
50	**Ø2 (NORTHBOUND-LT)**	50	GRIDSMART		COUNT
51	**Ø3 (RT)**	51	GRIDSMART		COUNT
52	**Ø3 (LT)**	52	GRIDSMART		COUNT
53	**Ø1 (SOUTHBOUND-RT)**	53	GRIDSMART		COUNT
54	**Ø1 (SOUTHBOUND-STRAIGHT)**	54	GRIDSMART		COUNT
21	**PED-1 Ø3**	21	BUTTON		PEDESTRIAN
22	**PED-2 Ø1**	22	BUTTON		PEDESTRIAN

STATE OF NEW YORK - DEPARTMENT OF TRANSPORTATION
TRAFFIC AND SAFETY DIVISION
TRAFFIC CONTROL SIGNAL SPECIFICATIONS (CONTINUED)

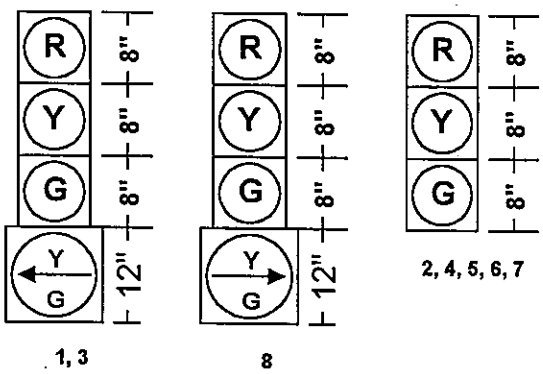
STUDY:
CONTRACT:
PIN:
FILE: 13.01.9D

D25A — SIGNAL NO(S)
DUTCHESS — COUNTY
DATE
PAGE _____ OF _____ PAGES

HWP # 8-95-1120



FACES



Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	10	3	5	5	10	3		
Gap, Ext		1	2			1		
Max 1	35	15	40	40	35	15		
Max 2								
Yel Clearance	4	4	4	4	4	4	3.5	3.5
Red Clearance	1	1	1	1	1	1	1.5	1.5
Walk	8		8					
Ped Clearance	15		15					
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								
Options [1.1.2]	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Enable	ON	ON	ON	ON	ON	ON		
Min Recall								
Max Recall	ON				ON			
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry	ON				ON			
Enable Simul Gap	ON	ON	ON	ON	ON	ON	ON	ON
Gaurantee Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								
Options+ [1.1.3]	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	75	0	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	90	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1
Split		1	2	3	4	5	6	7	8	Split		1	2	3	4	5	6	7	8
1	Coor	30	15	30	0	30	15	30	0	13	Coor	0	0	0	0	0	0	0	0
	1	Max	NON	NON	OMT	Max	NON	NON	OMT			NON	NON	NON	NON	NON	NON	NON	NON
2	Coor	30	20	40	0	30	20	40	0	14	Coor	0	0	0	0	0	0	0	0
	1	Max	NON	NON	OMT	Max	NON	NON	OMT			NON	NON	NON	NON	NON	NON	NON	NON
3	Coor	0	0	0	0	0	0	0	0	15	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
4	Coor	0	0	0	0	0	0	0	0	16	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
5	Coor	0	0	0	0	0	0	0	0	17	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
6	Coor	0	0	0	0	0	0	0	0	18	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
7	Coor	0	0	0	0	0	0	0	0	19	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
8	Coor	0	0	0	0	0	0	0	0	20	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
9	Coor	0	0	0	0	0	0	0	0	21	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
10	Coor	0	0	0	0	0	0	0	0	22	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
11	Coor	0	0	0	0	0	0	0	0	23	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
12	Coor	0	0	0	0	0	0	0	0	24	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

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Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	Green	ON
2	1	Red	ON
3	1	Red	ON
4	1	Red	ON
5	2	Green	ON
6	2	Red	ON
7	2	Red	OFF
8	2	Red	OFF

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	Float
Closed Loop	ON
Stop-in-Walk	ON
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	PH OVER
Flash Yel	45
Flash Red	20

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	User
Loc Flsh Start	ON
Start Flash(s)	0
Start AllRed(s)	0
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

Overlap 1-16 Program Parms & Parm+ [1.5.2.1] [1.5.2.2]

Overlap Conflict Lock	OFF	Overlap Lock Inhibit	OFF	Parent Ph Clearance	OFF	Extra Included Ph	ON

	Included Ø	2	3	4					Type	NORMAL		Included Ø									Type	NORMAL
1	Modifier Ø	3							Grn		9	Modifier Ø									Grn	
	Conflict Ø								Yel	4		Conflict Ø									Yel	3.5
A	Conflict Olap								Red	1	I	Conflict Olap									Red	1.5
	Conflict Ped								LG			Conflict Ped									LG	
	Included Ø	3	4						Type	NORMAL		Included Ø									Type	NORMAL
2	Modifier Ø								Grn		10	Modifier Ø									Grn	
	Conflict Ø								Yel	4		Conflict Ø									Yel	3.5
B	Conflict Olap								Red	1	J	Conflict Olap									Red	1.5
	Conflict Ped								LG			Conflict Ped									LG	
	Included Ø								Type	NORMAL		Included Ø									Type	NORMAL
3	Modifier Ø								Grn		11	Modifier Ø									Grn	
	Conflict Ø								Yel	3.5		Conflict Ø									Yel	3.5
C	Conflict Olap								Red	1.5	K	Conflict Olap									Red	1.5
	Conflict Ped								LG			Conflict Ped									LG	
	Included Ø								Type	NORMAL		Included Ø									Type	NORMAL
4	Modifier Ø								Grn		12	Modifier Ø									Grn	
	Conflict Ø								Yel	3.5		Conflict Ø									Yel	3.5
D	Conflict Olap								Red	1.5	L	Conflict Olap									Red	1.5
	Conflict Ped								LG			Conflict Ped									LG	
	Included Ø								Type	NORMAL		Included Ø									Type	NORMAL
5	Modifier Ø								Grn		13	Modifier Ø									Grn	
	Conflict Ø								Yel	3.5		Conflict Ø									Yel	3.5
E	Conflict Olap								Red	1.5	M	Conflict Olap									Red	1.5
	Conflict Ped								LG			Conflict Ped									LG	
	Included Ø								Type	NORMAL		Included Ø									Type	NORMAL
6	Modifier Ø								Grn		14	Modifier Ø									Grn	
	Conflict Ø								Yel	3.5		Conflict Ø									Yel	3.5
F	Conflict Olap								Red	1.5	N	Conflict Olap									Red	1.5
	Conflict Ped								LG			Conflict Ped									LG	
	Included Ø								Type	NORMAL		Included Ø									Type	NORMAL
7	Modifier Ø								Grn		15	Modifier Ø									Grn	
	Conflict Ø								Yel	3.5		Conflict Ø									Yel	3.5
G	Conflict Olap								Red	1.5	O	Conflict Olap									Red	1.5
	Conflict Ped								LG			Conflict Ped									LG	
	Included Ø								Type	NORMAL		Included Ø									Type	NORMAL
8	Modifier Ø								Grn		16	Modifier Ø									Grn	
	Conflict Ø								Yel	3.5		Conflict Ø									Yel	3.5
H	Conflict Olap								Red	1.5	P	Conflict Olap									Red	1.5
	Conflict Ped								LG			Conflict Ped									LG	

Channel Settings [1.8.1]

……Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Phase / Olap #	1	2	3	3	5	6	1	1					2	3										
Channel Type	VEH	VEH	VEH	PED	VEH	VEH	PED	OLP	VEH	VEH	VEH	VEH	OLP	PED	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Channel Flash	YEL	DRK	Red	DRK	YEL	DRK	DRK	Red	Red	Red	Red	Red	Red	DRK	Red	Red	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								

Channel+ Settings [1.8.4]

……Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Flash Red+																								
Flash Yellow+																								
Flash Green+																								
Flash Inh Red+																								
Olap Ovrd																								

Coord Transition, CoorPhs [2.5]

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	RetHld	Float	Min Veh Perm	Min Ped Perm
1	12	22							EndGRN				
2	12	22							EndGRN				
3	12	22							EndGRN				
4	12	22							EndGRN				
5	12	22							EndGRN				
6	12	22							EndGRN				
7	12	22							EndGRN				
8	12	22							EndGRN				
9	12	22							EndGRN				
10	12	22							EndGRN				
11	12	22							EndGRN				
12	12	22							EndGRN				
13	12	22							EndGRN				
14	12	22							EndGRN				
15	12	22							EndGRN				
16	12	22							EndGRN				
17	12	22							EndGRN				
18	12	22							EndGRN				
19	12	22							EndGRN				
20	12	22							EndGRN				
21	12	22							EndGRN				
22	12	22							EndGRN				
23	12	22							EndGRN				
24	12	22							EndGRN				
25									BegGRN				
26									BegGRN				
27									BegGRN				
28									BegGRN				
29									BegGRN				
30									BegGRN				
31									BegGRN				
32									BegGRN				
33									BegGRN				
34									BegGRN				
35									BegGRN				
36									BegGRN				
37									BegGRN				
38									BegGRN				
39									BegGRN				
40									BegGRN				
41									BegGRN				
42									BegGRN				
43									BegGRN				
44									BegGRN				
45									BegGRN				
46									BegGRN				
47									BegGRN				
48									BegGRN				

Channel Params[1.8.3]

C1 IO Mode	User	Single BIU Map	SINGLE	Invert Rail Input	OFF

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1							45	50	2
2	2		3				45	50	10
3	3		3				45	50	20
4							45	50	2
5							45	50	2
6	6		3				45	50	10
7							45	50	2
8							45	50	2
9							45	50	2
10							45	50	2
11							45	50	2
12							45	50	2
13	3		3				45	50	20
14	3		5				45	50	20
15							45	50	2
16							45	50	2
17							45	50	2
18							45	50	2
19							45	50	
20							45	50	
21							45	50	
22							45	50	
23							45	50	
24							45	50	
25							45	50	
26							45	50	
27							45	50	
28							45	50	
29							45	50	
30							45	50	
31							45	50	
32							45	50	

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
33							45	50	
34							45	50	
35							45	50	
36							45	50	
37							45	50	
38							45	50	
39							45	50	
40							45	50	
41							45	50	
42							45	50	
43							45	50	
44							45	50	
45							45	50	
46							45	50	
47							45	50	
48							45	50	
49							45	50	
50							45	50	
51							45	50	
52							45	50	
53							45	50	
54							45	50	
55							45	50	
56							45	50	
57							45	50	
58							45	50	
59							45	50	
60							45	50	
61							45	50	
62							45	50	
63							45	50	
64							45	50	

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	ON	ON		ON				
2	ON	ON		ON				
3	ON	ON		ON				
4	ON	ON		ON				
5	ON	ON		ON				
6	ON	ON		ON				
7	ON	ON		ON				
8	ON	ON		ON				
9	ON	ON		ON				
10	ON	ON		ON				
11	ON	ON		ON				
12	ON	ON		ON				
13	ON	ON		ON				
14	ON	ON		ON				
15	ON	ON		ON				
16	ON	ON		ON				
17	ON	ON		ON				
18	ON	ON		ON				
19	ON	ON		ON				
20	ON	ON		ON				
21	ON	ON		ON				
22	ON	ON		ON				
23	ON	ON		ON				
24	ON	ON		ON				
25	ON	ON		ON				
26	ON	ON		ON				
27	ON	ON		ON				
28	ON	ON		ON				
29	ON	ON		ON				
30	ON	ON		ON				
31	ON	ON		ON				
32	ON	ON		ON				

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add AddInit	Red Lock	Yell Lock	occ	vol
33	ON	ON		ON				
34	ON	ON		ON				
35	ON	ON		ON				
36	ON	ON		ON				
37	ON	ON		ON				
38	ON	ON		ON				
39	ON	ON		ON				
40	ON	ON		ON				
41	ON	ON		ON				
42	ON	ON		ON				
43	ON	ON		ON				
44	ON	ON		ON				
45	ON	ON		ON				
46	ON	ON		ON				
47	ON	ON		ON				
48	ON	ON		ON				
49	ON	ON		ON				
50	ON	ON		ON				
51	ON	ON		ON				
52	ON	ON		ON				
53	ON	ON		ON				
54	ON	ON		ON				
55	ON	ON		ON				
56	ON	ON		ON				
57	ON	ON		ON				
58	ON	ON		ON				
59	ON	ON		ON				
60	ON	ON		ON				
61	ON	ON		ON				
62	ON	ON		ON				
63	ON	ON		ON				
64	ON	ON		ON				

Parameters+ 1-64 [5.3]

Det #	oc G	oc Y	oc R	Dlay 1	Dlay 2	Type	Src
1						NORM	
2						NORM	
3						NORM	
4						NORM	
5						NORM	
6						NORM	
7						NORM	
8						NORM	
9						NORM	
10						NORM	
11						NORM	
12						NORM	
13						NORM	
14						NORM	
15						NORM	
16						NORM	
17						NORM	
18						NORM	
19						NORM	
20						NORM	
21						NORM	
22						NORM	
23						NORM	
24						NORM	
25						NORM	
26						NORM	
27						NORM	
28						NORM	
29						NORM	
30						NORM	
31						NORM	
32						NORM	

Parameters+ 1-64 [5.3]

Det #	occ Grn	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src
33						NORM	
34						NORM	
35						NORM	
36						NORM	
37						NORM	
38						NORM	
39						NORM	
40						NORM	
41						NORM	
42						NORM	
43						NORM	
44						NORM	
45						NORM	
46						NORM	
47						NORM	
48						NORM	
49						NORM	
50						NORM	
51						NORM	
52						NORM	
53						NORM	
54						NORM	
55						NORM	
56						NORM	
57						NORM	
58						NORM	
59						NORM	
60						NORM	
61						NORM	
62						NORM	
63						NORM	
64						NORM	

Ped Det Parms [5.4]

Det #	Call Ø	No Act	Max Pres	Err Cnt
1	1		15	
2	3		15	
3			15	
4			15	
5			15	
6			15	
7			15	
8			15	

Unit Paramters [1.2.1]

TS2 Det Faults	ON

Vol/Occ Report Parm [1.5.8]

Vol/Occ Period Minutes	0
Vol/Occ Period Minutes	15

Preemption Times [3.1], Options+ [3.6]

Pre #	Enable	Type	Output	Delay	MinDura
1	ON	RAIL	Dwell		
2	ON	RAIL	Dwell		
3	ON	EMERG	Dwell		
4	ON	EMERG	Dwell		
5	ON	EMERG	Dwell		
6	ON	EMERG	Dwell		

Pre #	MaxPres	MinGrn	MinWlk	PedClr	Co+Pre
1					ON
2					ON
3	40			15	ON
4					ON
5					ON
6					ON

Pre #	Track Grn	Min Dwell	Ext Dwell	PedClr+	Yel
1		2			
2		2			
3		40			4
4		2			
5		2			
6		2			

Pre #	Red	Pattern	Skip
1			OFF
2			OFF
3	1		OFF
4			OFF
5			OFF
6			OFF

Low Priority Preempts

Pre #	Type	Min	Max
7	OFF		
8	OFF		
9	OFF		
10	OFF		

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	PRE
Max Seek Track Time	
Max Seek Dwell Time	

Channel Parameters [1.8.3]

D Conn Mappings	None
Pre Invert Rail Input	OFF

Track Clear Phases [3.2], Track Clear Overlaps+ [3.5]

Pre #	Track Phases	Track Overlaps
1		
2		
3		
4		
5		
6		

Dwell Phases [3.2] and Overlaps+ [3.5]

Pre #		
1	Phases	
	Overlap	
	Peds	
2	Phases	
	Overlap	
	Peds	
3	Phases	4
	Overlap	1 2
	Peds	
4	Phases	
	Overlap	
	Peds	
5	Phases	
	Overlap	
	Peds	
6	Phases	
	Overlap	
	Peds	

Exit Phases [3.2]

Pre #	Exit Phase
1	
2	
3	
4	
5	
6	

Preemption Options+ [3.6]

Pre #	Lock	Override Auto Flsh	Override Higher	Flsh Dwell	Link
1	ON	ON	ON	OFF	
2	ON	ON	ON	OFF	
3	ON	ON	ON	OFF	
4	ON	ON	ON	OFF	
5	ON	ON	ON	OFF	
6	ON	ON	ON	OFF	

Alt# 1 Times Table [1.1.6.1.2]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1.2]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1.3]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2.1]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 1 Veh Parameters [5.5.1.1]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Swiitch																
Delay																
Extend																
Queue																
No Activity																
Max Presence																
Erratic Count																
Fail Time																

Alt# 1 Veh Options [5.5.1.2]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Extend																
Queue																
Added Initial																
Red Lock																
Yellow Lock																
Occupancy																
Volume																

Alt# 1 Veh Parameters+ [5.5.1.3]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Occ-on-green																
Occ-on-yellow																
Occ-on-red																
Delay Phase 1																
Delay Phase 2																
Detector Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Source																

Alt# 1 Ped Parameters+ [5.5.1.4]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Det#								
Call								
No Activity								
Max Presence								
Erratic Count								

Alt# 2 Options Table [1.1.6.2.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 3 Options Table [1.1.6.2.3]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 4 Options Table [1.1.6.2.4]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 2 Veh Parameters [5.5.2.1]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Swiitch																
Delay																
Extend																
Queue																
No Activity																
Max Presence																
Erratic Count																
Fail Time																

Alt# 2 Veh Options [5.5.2.2]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Extend																
Queue																
Added Initial																
Red Lock																
Yellow Lock																
Occupancy																
Volume																

Alt# 2 Veh Parameters+ [5.5.2.3]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Occ-on-green																
Occ-on-yellow																
Occ-on-red																
Delay Phase 1																
Delay Phase 2																
Detector Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Source																

Alt# 2 Ped Parameters+ [5.5.2.4]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Det#								
Call								
No Activity								
Max Presence								
Erratic Count								

Annual Schedule [4.3]	Month of Year												Day of Week							Date																											Day Plan	Link To
1	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON		ON	ON	ON	ON	ON		ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	1	
2	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON						ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	2	
3	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
4	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
5	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
6	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
7	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
8	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
9	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
10	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
11	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
12	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
13	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
14	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
15	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
16	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
17	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
18	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
19	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
20	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
21	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
22	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
23	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
24	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	

2925 BEACON ARTERIAL (RTE 9D) AT MAIN ST - M 11/6/2023 Page 7

Day Plans [4.4]

Day Plan 1

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	6	30	1	10	0	0	0
3	16	0	2	11	0	0	0
4	19	0	1	12	0	0	0
5	22	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 2

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	6	30	1	10	0	0	0
3	22	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 3

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 4

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 5

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 6

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 7

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 8

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 9

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 10

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 11

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 12

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 13

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 14

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 15

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Action Table [4.5]

Act#	Pat#	A1	A2	A3	S1	S2	S3	S4	S5	S6	S7	S8
1	1											
2	2											
3	3											
4	4											
5	5											
6	6											
7	7											
8	8											
9	9											
10	10											
11	11											
12	12											
13	13											
14	14											
15	15											
16	16											
17	17											
18	18											
19	19											
20	20											
21	21											
22	22											
23	23											
24	24											
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
48												
98												
99												
100	255											

Coord Alternate Tables - Pat+ [2.6]

Pat#	ØOpt	ØTime	DetG	Call Inh	CIC	CNA1	Overlap Off 1	2	3	4	5	6	7	8	Dia	Max2
1															DFT	
2															DFT	
3															DFT	
4															DFT	
5															DFT	
6															DFT	
7															DFT	
8															DFT	
9															DFT	
10															DFT	
11															DFT	
12															DFT	
13															DFT	
14															DFT	
15															DFT	
16															DFT	
17															DFT	
18															DFT	
19															DFT	
20															DFT	
21															DFT	
22															DFT	
23															DFT	
24															DFT	
25															DFT	
26															DFT	
27															DFT	
28															DFT	
29															DFT	
30															DFT	
31															DFT	
32															DFT	
33															DFT	
34															DFT	
35															DFT	
36															DFT	
37															DFT	
38															DFT	
39															DFT	
40															DFT	
41															DFT	
42															DFT	
43															DFT	
44															DFT	
45															DFT	
46															DFT	
47															DFT	
48															DFT	

C1-USER IO Map [1.8.9.1 In]

I1-1	189	Unused
I1-2	2	Veh Call 2
I1-3	3	Veh Call 3
I1-4	189	Unused
I1-5	189	Unused
I1-6	6	Veh Call 6
I1-7	189	Unused
I1-8	189	Unused
I2-1	189	Unused
I2-2	189	Unused
I2-3	189	Unused
I2-4	189	Unused
I2-5	13	Veh Call 13
I2-6	14	Veh Call 14
I2-7	189	Unused
I2-8	189	Unused
I3-1	189	Unused
I3-2	189	Unused
I3-3	189	Unused
I3-4	189	Unused
I3-5	129	Ped Call 1
I3-6	130	Ped Call 2
I3-7	130	Ped Call 2
I3-8	200	Pre 3 In
I4-1	**189**	Unused
I4-2	**189**	Unused
I4-3	**189**	Unused
I4-4	**189**	Unused
I4-5	179	Door Open
I4-6	189	Unused
I4-7	229	33xCMUStop
I4-8	228	33xFlashSns
I5-1	189	Unused
I5-2	189	Unused
I5-3	189	Unused
I5-4	189	Unused
I5-5	189	Unused
I5-6	189	Unused
I5-7	189	Unused
I5-8	189	Unused
I6-1	189	Unused
I6-2	189	Unused
I6-3	189	Unused
I6-4	189	Unused
I6-5	189	Unused
I6-6	189	Unused
I6-7	189	Unused
I6-8	189	Unused

C1-USER IO Map [1.8.9.2 Out]

O1-1	1	Ch1 Red
O1-2	49	Ch1 Green
O1-3	2	Ch2 Red
O1-4	26	Ch2 Yellow
O1-5	50	Ch2 Green
O1-6	3	Ch3 Red
O1-7	27	Ch3 Yellow
O1-8	51	Ch3 Green
O2-1	4	Ch4 Red
O2-2	52	Ch4 Green
O2-3	5	Ch5 Red
O2-4	29	Ch5 Yellow
O2-5	53	Ch5 Green
O2-6	6	Ch6 Red
O2-7	30	Ch6 Yellow
O2-8	54	Ch6 Green
O3-1	7	Ch7 Red
O3-2	55	Ch7 Green
O3-3	8	Ch8 Red
O3-4	32	Ch8 Yellow
O3-5	56	Ch8 Green
O3-6	9	Ch9 Red
O3-7	33	Ch9 Yellow
O3-8	57	Ch9 Green
O4-1	10	Ch10 Red
O4-2	58	Ch10 Green
O4-3	11	Ch11 Red
O4-4	35	Ch11 Yellow
O4-5	137	PreemptActv
O4-6	12	Ch12 Red
O4-7	36	Ch12 Yellow
O4-8	60	Ch12 Green
O5-1	28	Ch4 Yellow
O5-2	34	Ch10 Yellow
O5-3	25	Ch1 Yellow
O5-4	31	Ch7 Yellow
O5-5	39	Ch15 Yellow
O5-6	63	Ch15 Green
O5-7	115	Not Used
O5-8	114	Watchdog
O6-1	115	Not Used
O6-2	115	Not Used
O6-3	13	Ch13 Red
O6-4	37	Ch13 Yellow
O6-5	61	Ch13 Green
O6-6	14	Ch14 Red
O6-7	38	Ch14 Yellow
O6-8	62	Ch14 Green

C1-USER IO Map [1.8.9.2 Out]

O7-1	40	Ch16 Yellow
O7-2	16	Ch16 Red
O7-3	64	Ch16 Green
O7-4	115	Not Used
O7-5	115	Not Used
O7-6	115	Not Used
O7-7	115	Not Used
O7-8	15	Ch15 Red

C11S-USER IO Map [1.8.9.1 In]

I4-1		
I4-2		
I4-3		
I4-4		
I7-1	189	Unused
I7-2	189	Unused
I7-3	189	Unused
I7-4	189	Unused
I7-5	189	Unused
I7-6	189	Unused
I7-7	189	Unused
I7-8	189	Unused
I8-1	189	Unused
I8-2	189	Unused
I8-3	189	Unused
I8-4	189	Unused
I8-5	189	Unused
I8-6	189	Unused
I8-7	189	Unused
I8-8	189	Unused

C11S-USER IO Map [1.8.9.2 Out]

O8-1	115	Not Used
O8-2	115	Not Used
O8-3	115	Not Used
O8-4	115	Not Used
O8-5	115	Not Used
O8-6	115	Not Used
O8-7	115	Not Used
O8-8	115	Not Used

IO Logic [1.8.7]

Op1	Result		O1Fcn	Inv1	IO1	Opn1	O2Fcn	Inv2	IO2	Opn2	O3Fcn	Inv3	IO3	Opn3	Dly	Sec
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0

Security Access Levels [8.2]

1	SWLOAD
2	SECURE
3	None
4	None
5	None
6	None
7	None
8	None
9	None
10	None
11	None
12	None
13	None
14	None
15	None
16	None
17	None
18	None
19	None
20	None
21	None
22	None
23	None
24	None
25	None
26	None
27	None
28	None
29	None
30	None
31	None
32	None
33	None
34	None
35	None
36	None
37	None
38	None
39	None
40	None
41	None
42	None
43	None
44	None
45	None
46	None
47	None
48	None
49	None
50	None
51	None
52	None
53	None
54	None
55	None
56	None
57	None
58	None
59	None
60	None
61	None
62	None
63	None
64	None

Com Parameters [6.1]

Station ID	2925
Group ID	
Master ID	0
Backup Time	0

SysUp Modem [6.1]

Enable Modem	OFF
Idle Time	0
Dial Time	0
Tel:	
Alt:	

2070 Port Parms [6.2]

Port	Baud Rate	FCM
SP1	9600	MODE 6
SP2	9600	MODE 6
SP3	19200	MODE 6
SP4	38400	MODE 6
SP5	1200	AUTO
SP6	1200	AUTO
SP7	1200	AUTO
SP8	1200	AUTO

2070 IP 1 Addressing [6.5]

	Addressing			
Addr	0	0	0	0
Mask	0	0	0	0
Brdcst	0	0	0	0
GtWay	0	0	0	0
Port	0			

2070 IP 2 Addressing [6.5]

	Addressing			
Addr	0	0	0	0
Mask	0	0	0	0
Brdcst	0	0	0	0
GtWay	0	0	0	0
Port	0			

2070 Port Binding Ports [6.6]

	Port	Echo	Mode
ASYNC1	SP1	OFF	0
ASYNC2	SP2	OFF	0
ASYNC3	SP3	OFF	0
ASYNC4	SP4	OFF	0
SYNC1	SP5S	SYNC3	OFF
SYNC2	OFF	SYNC4	OFF

2070 Port Binding Functions [6.6]

Function	Channel	Function	Channel
TS2/CVM	None	SYSUp	ASYNC2
CMU/MMU	None	SYSDown	ASYNC1
Opticom	None	Shell	None
Loop Det.	None		
GPS	-		

#	Event / Alarm	Ev	Alr
1	Power Up Alarm.	ON	ON
2	Stop Timing	ON	ON
3	TS1 Cabinet Door		
4	Coordination Failure	ON	ON
5	External Alarm # 1	ON	ON
6	External Alarm # 2	ON	ON
7	External Alarm # 3		
8	External Alarm # 4		
9	Closed Loop Disabled	ON	ON
10	External Alarm # 5		
11	External Alarm # 6		
12	Manual Control Enable	ON	ON
13	Coord Free Input		
14	Local Flash Input	ON	ON
15	MMU Flash		
16	CMU Flash		
17	Cycle Fault	ON	ON
18	Cycle Failure	ON	ON
19	Coordination Fault	ON	ON
20	Controller Fault	ON	ON
21	Detector SDLC Failure		
22	MMU SDLC Failure		
23	Critical SDLC Failure		
24	Reserved		
25	EEPROM CRC Fault	ON	ON
26	Detector Diagnostic Failur		
27	BIU Detector Failure	ON	ON
32	Queue detector alarm	ON	ON
29	Ped Detector Fault	ON	ON
30	Coord Diagnostic Fault		
41	TempAlert Probe Ch. A		
42	TempAlert Probe Ch. B		
47	Coord Active		
48	Preempt Active	ON	ON
49	Preempt 1 Input	ON	ON
50	Preempt 2 Input	ON	ON
51	Preempt 3 Input	ON	ON
52	Preempt 4 Input	ON	ON
53	Preempt 5 Input	ON	ON
54	Preempt 6 Input	ON	ON
55	Preempt 7 Input	ON	ON
56	Preempt 8 Input	ON	ON
57	Preempt 9 Input	ON	ON
58	Preempt 10 Input	ON	ON
61	In Transition	ON	ON
81	FIO Status Alarm		

Call Phases[1.1.5]

Ø	Ø	Phases Called By Ø			
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

Redirect Phases[1.1.5]

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

Inhibit Phases[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

Alt Call & Redirect # 1 [1.1.6.3]

Col	Ø	Phases Called By Ø					From	To	From	To	From	To	From	To
1						1								
2						2								
3						3								
4						4								
5						5								
6						6								
7						7								
8						8								

Alt Inhibit Phases # 1 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Alt Call & Redirect # 2 [1.1.6.3]

Col	Ø	Phases Called By Ø					From	To	From	To	From	To	From	To
1						1								
2						2								
3						3								
4						4								
5						5								
6						6								
7						7								
8						8								

Alt Inhibit Phases # 2 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Coord, CIC Plans [2.3]

CIC	CoØ	Grow	1	2	3	4	5	6	7	8
1	OFF									
2	OFF									
3	OFF									
4	OFF									

Auto Flash Phase/Olap Settings [1.4.2]

Yel Ø								
Yel (olaps)								

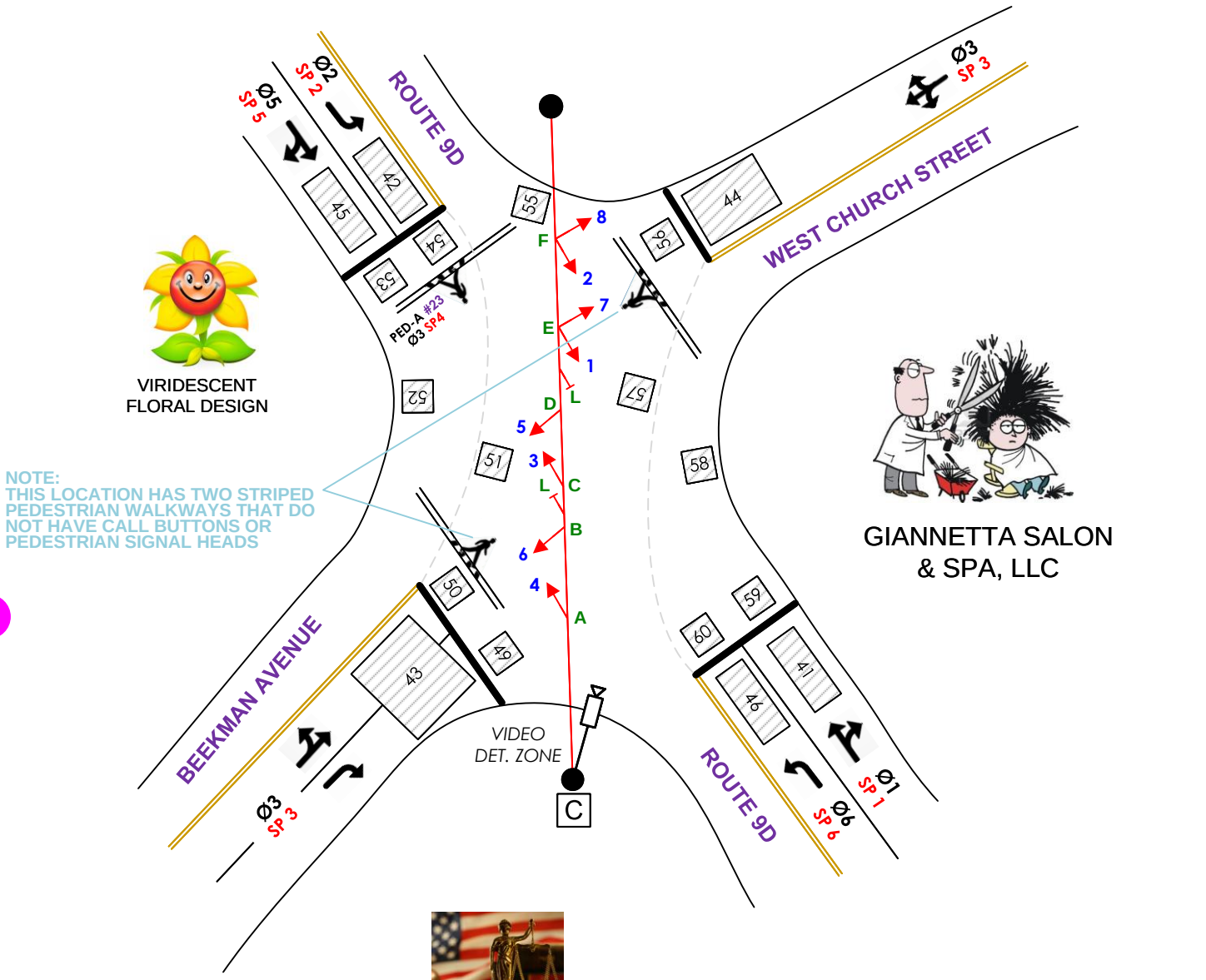
Unit Parameters [1.2.1]

Allow Skip Yellow	OFF	Max Cycle Time	
TOD Dim Enable	OFF	Cycle Fault Action	Alarm
Tone Disable	OFF		
Diamond Mode	4Ph		
Backup Time (s)	900		
Disable Init Ped	OFF		
Cycle Fault Action	Alarm		
Enable Run Timer	ON		

D-26A
Signal #

STATE OF NEW YORK - DEPARTMENT OF TRANSPORTATION
TRAFFIC AND SAFETY DIVISION
in the City of ***BEACON***

Signal: **D-26A**
File: 13.01-9D
D/HWP: D256460
PIN: _____



VIRIDESCENT FLORAL DESIGN

NOTE:
THIS LOCATION HAS TWO STRIPED PEDESTRIAN WALKWAYS THAT DO NOT HAVE CALL BUTTONS OR PEDESTRIAN SIGNAL HEADS

GIANNETTA SALON & SPA, LLC



TABLE OF SIGNS

ONLY
L

Phase Sequence

1	2		3
5	6		

NORTH

2022 PLAN OF OPERATION

Printed: 2/2/2023

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	10	3	5		10	3		5
Gap, Ext	2	1	2		2	1		2
Max 1	35	15	40		35	15		40
Max 2								
Yel Clearance	4	4	4	3.5	4	4	3.5	4
Red Clearance	1	1	1	1.5	1	1	1.5	1
Walk			8					
Ped Clearance			15					
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	ON	ON	ON		ON	ON		ON
Min Recall	ON				ON			
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry	ON				ON			
Enable Simul Gap	ON	ON	ON	ON	ON	ON	ON	ON
Gaurantee Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	0	0	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	0	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	115	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split		1	2	3	4	5	6	7	8	Split		1	2	3	4	5	6	7	8
1	Coor	0	0	0	0	0	0	0	0	13	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
2	Coor	0	0	0	0	0	0	0	0	14	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
3	Coor	0	0	0	0	0	0	0	0	15	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
4	Coor	0	0	0	0	0	0	0	0	16	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
5	Coor	0	0	0	0	0	0	0	0	17	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
6	Coor	0	0	0	0	0	0	0	0	18	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
7	Coor	0	0	0	0	0	0	0	0	19	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
8	Coor	0	0	0	0	0	0	0	0	20	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
9	Coor	0	0	0	0	0	0	0	0	21	Coor	55	20	40	0	55	20	0	40
		NON	NON	NON	NON	NON	NON	NON	NON		5	Max	NON	NON	NON	Max	NON	NON	NON
10	Coor	0	0	0	0	0	0	0	0	22	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
11	Coor	0	0	0	0	0	0	0	0	23	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
12	Coor	0	0	0	0	0	0	0	0	24	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

2926

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	Green	ON
2	1	Red	ON
3	1	Red	ON
4	1	Red	OFF
5	2	Green	ON
6	2	Red	ON
7	2	Red	OFF
8	2	Red	ON

Coord Modes [2.1]

Test OpMode	254
Correction	SHRT/LNG
Maximum	MAX INH
Force-Off	FIXED
Closed Loop	ON
Stop-in-Walk	ON
Auto Reset	ON
Expand Splt	
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	PH_OVLP
Flash Yel	45
Flash Red	20

Unit Params [1.2.1]

Phase Mode	User
IO Mode	User
Loc Flsh Start	ON
Start Flash(s)	0
Start AllRed(s)	0
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

Overlap 1-16 Program Parms & Parm+ [1.5.2.1] [1.5.2.2]

Overlap Conflict Lock	OFF	Overlap Lock Inhibit	OFF	Parent Ph Clearance	ON	Extra Included Ph	OFF

	Included Ø								Type	NORMAL		Included Ø								Type	NORMAL
1	Modifier Ø								Grn		9	Modifier Ø								Grn	
	Conflict Ø								Yel	3.5		Conflict Ø								Yel	3.5
A	Conflict Olap								Red	1.5	I	Conflict Olap								Red	1.5
	Conflict Ped								LG			Conflict Ped								LG	
	Included Ø								Type	NORMAL		Included Ø								Type	NORMAL
2	Modifier Ø								Grn		10	Modifier Ø								Grn	
	Conflict Ø								Yel	3.5		Conflict Ø								Yel	3.5
B	Conflict Olap								Red	1.5	J	Conflict Olap								Red	1.5
	Conflict Ped								LG			Conflict Ped								LG	
	Included Ø								Type	NORMAL		Included Ø								Type	NORMAL
3	Modifier Ø								Grn		11	Modifier Ø								Grn	
	Conflict Ø								Yel	3.5		Conflict Ø								Yel	3.5
C	Conflict Olap								Red	1.5	K	Conflict Olap								Red	1.5
	Conflict Ped								LG			Conflict Ped								LG	
	Included Ø								Type	NORMAL		Included Ø								Type	NORMAL
4	Modifier Ø								Grn		12	Modifier Ø								Grn	
	Conflict Ø								Yel	3.5		Conflict Ø								Yel	3.5
D	Conflict Olap								Red	1.5	L	Conflict Olap								Red	1.5
	Conflict Ped								LG			Conflict Ped								LG	
	Included Ø								Type	NORMAL		Included Ø								Type	NORMAL
5	Modifier Ø								Grn		13	Modifier Ø								Grn	
	Conf o0l								Yel	3.5		Conflict Ø								Yel	3.5
E	Conflict Olap								Red	1.5	M	Conflict Olap								Red	1.5
	Conflict Ped								LG			Conflict Ped								LG	
	Included Ø								Type	NORMAL		Included Ø								Type	NORMAL
6	Modifier Ø								Grn		14	Modifier Ø								Grn	
	Conflict Ø								Yel	3.5		Conflict Ø								Yel	3.5
F	Conflict Olap								Red	1.5	N	Conflict Olap								Red	1.5
	Conflict Ped								LG			Conflict Ped								LG	
	Included Ø								Type	NORMAL		Included Ø								Type	NORMAL
7	Modifier Ø								Grn		15	Modifier Ø								Grn	
	Conflict Ø								Yel	3.5		Conflict Ø								Yel	3.5
G	Conflict Olap								Red	1.5	O	Conflict Olap								Red	1.5
	Conflict Ped								LG			Conflict Ped								LG	
	Included Ø								Type	NORMAL		Included Ø								Type	NORMAL
8	Modifier Ø								Grn		16	Modifier Ø								Grn	
	Conflict Ø								Yel	3.5		Conflict Ø								Yel	3.5
H	Conflict Olap								Red	1.5	P	Conflict Olap								Red	1.5
	Conflict Ped								LG			Conflict Ped								LG	

Channel Settings [1.8.1]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Phase / Olap #	1	2	3	3	5	6							3											
Channel Type	VEH	VEH	VEH	PED	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Channel Flash	Red	YEL	Red	DRK	Red	YEL	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								

Channel+ Settings [1.8.4]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Flash Red+																								
Flash Yellow+																								
Flash Green+																								
Flash Inh Red+																								
Olap Ovrd																								

Coord Transition, CoorPhs [2.5]

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	RetHld	Float	Min Veh Perm	Min Ped Perm
1	12	22							EndGRN				
2	12	22							EndGRN				
3	12	22							EndGRN				
4	12	22							EndGRN				
5	12	22							EndGRN				
6	12	22							EndGRN				
7	12	22							EndGRN				
8	12	22							EndGRN				
9	12	22							EndGRN				
10	12	22							EndGRN				
11	12	22							EndGRN				
12	12	22							EndGRN				
13	12	22							EndGRN				
14	12	22							EndGRN				
15	12	22							EndGRN				
16	12	22							EndGRN				
17	12	22							EndGRN				
18	12	22							EndGRN				
19	12	22							EndGRN				
20	12	22							EndGRN				
21	12	22							EndGRN				
22	12	22							EndGRN				
23	12	22							EndGRN				
24	12	22							EndGRN				
25									BegGRN				
26									BegGRN				
27									BegGRN				
28									BegGRN				
29									BegGRN				
30									BegGRN				
31									BegGRN				
32									BegGRN				
33									BegGRN				
34									BegGRN				
35									BegGRN				
36									BegGRN				
37									BegGRN				
38									BegGRN				
39									BegGRN				
40									BegGRN				
41									BegGRN				
42									BegGRN				
43									BegGRN				
44									BegGRN				
45									BegGRN				
46									BegGRN				
47									BegGRN				
48									BegGRN				

Channel Params[1.8.3]

C1 IO Mode	User	Single BIU Map	DEFAULT	Invert Rail Input	OFF

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1							45	50	2
2							45	50	2
3							45	50	2
4							45	50	2
5							45	50	2
6							45	50	2
7							45	50	2
8							45	50	2
9							45	50	2
10							45	50	2
11							45	50	2
12							45	50	2
13							45	50	2
14							45	50	2
15							45	50	2
16							45	50	2
17							45	50	2
18							45	50	2
19							45	50	
20							45	50	
21							45	50	
22							45	50	
23							45	50	
24							45	50	
25							45	50	
26							45	50	
27							45	50	
28							45	50	
29							45	50	
30							45	50	
31							45	50	
32							45	50	

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
33							45	50	
34							45	50	
35							45	50	
36							45	50	
37							45	50	
38							45	50	
39							45	50	
40							45	50	
41	1						45	50	25
42	2	5	2				45	50	10
43	3		3				45	50	25
44	3		3				45	50	25
45	5						45	50	25
46	6	1	2				45	50	10
47							45	50	
48							45	50	
49							45	50	
50							45	50	
51							45	50	
52							45	50	
53							45	50	
54							45	50	
55							45	50	
56							45	50	
57							45	50	
58							45	50	
59							45	50	
60							45	50	
61							45	50	
62							45	50	
63							45	50	
64							45	50	

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	ON	ON		ON				
2	ON	ON		ON				
3	ON	ON		ON				
4	ON	ON		ON				
5	ON	ON		ON				
6	ON	ON		ON				
7	ON	ON		ON				
8	ON	ON		ON				
9	ON	ON		ON				
10	ON	ON		ON				
11	ON	ON		ON				
12	ON	ON		ON				
13	ON	ON		ON				
14	ON	ON		ON				
15	ON	ON		ON				
16	ON	ON		ON				
17	ON	ON		ON				
18	ON	ON		ON				
19	ON	ON		ON				
20	ON	ON		ON				
21	ON	ON		ON				
22	ON	ON		ON				
23	ON	ON		ON				
24	ON	ON		ON				
25	ON	ON		ON				
26	ON	ON		ON				
27	ON	ON		ON				
28	ON	ON		ON				
29	ON	ON		ON				
30	ON	ON		ON				
31	ON	ON		ON				
32	ON	ON		ON				

Vehicle Options 1-64 [5.2]

Det #	vol	occ	Yell Lock	Red Lock	Ext	Add Init	Que	Call
33	ON	ON			ON	ON		ON
34	ON	ON			ON	ON		ON
35	ON	ON			ON	ON		ON
36	ON	ON			ON	ON		ON
37	ON	ON			ON	ON		ON
38	ON	ON			ON	ON		ON
39	ON	ON			ON	ON		ON
40	ON	ON			ON	ON		ON
41	ON	ON			ON	ON		ON
42	ON	ON			ON	ON		ON
43	ON	ON			ON	ON		ON
44	ON	ON			ON	ON		ON
45	ON	ON			ON	ON		ON
46	ON	ON			ON	ON		ON
47	ON	ON			ON	ON		ON
48	ON	ON			ON	ON		ON
49	ON	ON			ON	ON		ON
50	ON	ON			ON	ON		ON
51	ON	ON			ON	ON		ON
52	ON	ON			ON	ON		ON
53	ON	ON			ON	ON		ON
54	ON	ON			ON	ON		ON
55	ON	ON			ON	ON		ON
56	ON	ON			ON	ON		ON
57	ON	ON			ON	ON		ON
58	ON	ON			ON	ON		ON
59	ON	ON			ON	ON		ON
60	ON	ON			ON	ON		ON
61	ON	ON			ON	ON		ON
62	ON	ON			ON	ON		ON
63	ON	ON			ON	ON		ON
64	ON	ON			ON	ON		ON

Parameters+ 1-64 [5.3]

Det #	oc G	oc Y	oc R	Dlay 1	Dlay 2	Type	Src
1						NORM	
2						NORM	
3						NORM	
4						NORM	
5						NORM	
6						NORM	
7						NORM	
8						NORM	
9						NORM	
10						NORM	
11						NORM	
12						NORM	
13						NORM	
14						NORM	
15						NORM	
16						NORM	
17						NORM	
18						NORM	
19						NORM	
20						NORM	
21						NORM	
22						NORM	
23						NORM	
24						NORM	
25						NORM	
26						NORM	
27						NORM	
28						NORM	
29						NORM	
30						NORM	
31						NORM	
32						NORM	

Parameters+ 1-64 [5.3]

Det #	occ Grn	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src
33						NORM	
34						NORM	
35						NORM	
36						NORM	
37						NORM	
38						NORM	
39						NORM	
40						NORM	
41						NORM	
42						NORM	
43						NORM	
44						NORM	
45						NORM	
46						NORM	
47						NORM	
48						NORM	
49						NORM	
50						NORM	
51						NORM	
52						NORM	
53						NORM	
54						NORM	
55						NORM	
56						NORM	
57						NORM	
58						NORM	
59						NORM	
60						NORM	
61						NORM	
62						NORM	
63						NORM	
64						NORM	

Ped Det Parms [5.4]

Det #	Call Ø	No Act	Max Pres	Err Cnt
1	3		15	
2			15	
3			15	
4			15	
5			15	
6			15	
7			15	
8			15	

Unit Paramters [1.2.1]

TS2 Det Faults	ON

Vol/Occ Report Parm [1.5.8]

Vol/Occ Period Minutes	0
Vol/Occ Period Minutes	15

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Preemption Times [3.1], Options+ [3.6]

Pre #	Enable	Type	Output	Delay	MinDura
1	ON	RAIL	Dwell		
2	ON	RAIL	Dwell		
3	ON	EMERG	Dwell		
4	ON	EMERG	Dwell		
5	ON	EMERG	Dwell		
6	ON	EMERG	Dwell		

Pre #	MaxPres	MinGrn	MinWlk	PedClr	Co+Pre
1					ON
2					ON
3					ON
4					ON
5					ON
6					ON

Pre #	Track Grn	Min Dwell	Ext Dwell	PedClr+	Yel
1		2			
2		2			
3		2			
4		2			
5		2			
6		2			

Pre #	Red	Pattern	Skip
1			OFF
2			OFF
3			OFF
4			OFF
5			OFF
6			OFF

Low Priority Preempts

Pre #	Type	Min	Max
7	OFF		
8	OFF		
9	OFF		
10	OFF		

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	PRE
Max Seek Track Time	
Max Seek Dwell Time	

Channel Parameters [1.8.3]

D Conn Mappings	OFF
Pre Invert Rail Input	None

Track Clear Phases [3.2], Track Clear Overlaps+ [3.5]

Pre #	Track Phases					Track Overlaps										
1																
2																
3																
4																
5																
6																

Dwell Phases [3.2] and Overlaps+ [3.5]

Pre #														
1	Phases													
	Overlaps													
	Peds													
2	Phases													
	Overlaps													
	Peds													
3	Phases													
	Overlaps													
	Peds													
4	Phases													
	Overlaps													
	Peds													
5	Phases													
	Overlaps													
	Peds													
6	Phases													
	Overlaps													
	Peds													

Exit Phases [3.2]

Pre #	Exit Phase			
1				
2				
3				
4				
5				
6				

Preemption 1, Options+ [3.6]

Pre #	Lock	Override Auto Flsh	Override Higher	Flsh Dwell	Link
1	ON	ON	ON	OFF	
2	ON	ON	ON	OFF	
3	ON	ON	ON	OFF	
4	ON	ON	ON	OFF	
5	ON	ON	ON	OFF	
6	ON	ON	ON	OFF	

Alt# 1 Times Table [1.1.6.1]

Column#.. ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1]

Column#.. ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1]

Column#.. ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Annual Schedule [4.3]	Month of Year												Day of Week							Date																													Day	Link
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan	To
1																																																	1	
2																																																		1	
3																																																	1	
4																																																	1	
5																																																	1	
6																																																	1	
7																																																	1	
8																																																	1	
9																																																	1	
10																																																	1	
11																																																	1	
12																																																	1	
13																																																	1	
14																																																	1	
15																																																	1	
16																																																	1	
17																																																	1	
18																																																	1	
19																																																	1	
20																																																	1	
21																																																	1	
22																																																	1	
23																																																	1	
24																																																	1	

Day Plans [4.4]

Day Plan 1

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 2

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 3

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 4

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 5

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 6

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 7

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 8

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 9

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 10

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 11

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 12

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 13

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 14

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 15

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Action Table [4.5]

Act#	Pat#	A1	A2	A3	S1	S2	S3	S4	S5	S6	S7	S8
1	1											
2	2											
3	3											
4	4											
5	5											
6	6											
7	7											
8	8											
9	9											
10	10											
11	11											
12	12											
13	13											
14	14											
15	15											
16	16											
17	17											
18	18											
19	19											
20	20											
21	21											
22	22											
23	23											
24	24											
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
48												
98												
99												
100	255											

Coord Alternate Tables - Pat+ [2.6]

Pat#	ØOpt	ØTime	DetG	Call Inh	CIC	CNA1	Overlap Off 1	2	3	4	5	6	7	8	Dia	Max2
1															DFT	
2															DFT	
3															DFT	
4															DFT	
5															DFT	
6															DFT	
7															DFT	
8															DFT	
9															DFT	
10															DFT	
11															DFT	
12															DFT	
13															DFT	
14															DFT	
15															DFT	
16															DFT	
17															DFT	
18															DFT	
19															DFT	
20															DFT	
21															DFT	
22															DFT	
23															DFT	
24															DFT	
25															DFT	
26															DFT	
27															DFT	
28															DFT	
29															DFT	
30															DFT	
31															DFT	
32															DFT	
33															DFT	
34															DFT	
35															DFT	
36															DFT	
37															DFT	
38															DFT	
39															DFT	
40															DFT	
41															DFT	
42															DFT	
43															DFT	
44															DFT	
45															DFT	
46															DFT	
47															DFT	
48															DFT	

#	Event / Alarm	Ev	Alr
1	Power Up Alarm.	ON	ON
2	Stop Timing	ON	ON
3	TS1 Cabinet Door		
4	Coordination Failure	ON	ON
5	External Alarm # 1	ON	ON
6	External Alarm # 2	ON	ON
7	External Alarm # 3		
8	External Alarm # 4		
9	Closed Loop Disabled	ON	ON
10	External Alarm # 5		
11	External Alarm # 6		
12	Manual Control Enable	ON	ON
13	Coord Free Input		
14	Local Flash Input	ON	ON
15	MMU Flash		
16	CMU Flash		
17	Cycle Fault	ON	ON
18	Cycle Failure	ON	ON
19	Coordination Fault	ON	ON
20	Controller Fault	ON	ON
21	Detector SDLC Failure		
22	MMU SDLC Failure		
23	Critical SDLC Failure		
24	Reserved		
25	EEPROM CRC Fault	ON	ON
26	Detector Diagnostic Failure		
27	BIU Detector Failure	ON	ON
28	Queue detector alarm	ON	ON
29	Ped Detector Fault	ON	ON
30	Coord Diagnostic Fault		
41	TempAlert Probe Ch. A		
42	TempAlert Probe Ch. B		
47	Coord Active		
48	Preempt Active	ON	ON
49	Preempt 1 Input	ON	ON
50	Preempt 2 Input	ON	ON
51	Preempt 3 Input	ON	ON
52	Preempt 4 Input	ON	ON
53	Preempt 5 Input	ON	ON
54	Preempt 6 Input	ON	ON
55	Preempt 7 Input	ON	ON
56	Preempt 8 Input	ON	ON
57	Preempt 9 Input	ON	ON
58	Preempt 10 Input	ON	ON
61	In Transition	ON	ON
81	FIO Status Alarm		

Call Phases[1.1.5]

Ø	Phases Called By Ø			
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

Redirect Phases[1.1.5]

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

Inhibit Phases[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

Alt Call & Redirect # 1 [1.1.6.3]

Col	Ø	Phases Called By Ø			
1					
2					
3					
4					
5					
6					
7					
8					

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 1 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Alt Call & Redirect # 2 [1.1.6.3]

Col	Ø	Phases Called By Ø			
1					
2					
3					
4					
5					
6					
7					
8					

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 2 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Auto Flash Phase/Olap Settings [1.4.2]

Yel Ø								
Yel (olaps)								

Unit Parameters [1.2.1]

Allow Skip Yellow	OFF	Max Cycle Time	
TOD Dim Enable	OFF	Cycle Fault Action	Alarm
Tone Disable	OFF		
Diamond Mode	4Ph		
Backup Time (s)	900		
Disable Init Ped	OFF		
Cycle Fault Action	Alarm		
Enable Run Timer	ON		

C1-USER IO Map [1.8.9.1 In]

I1-1	189	Unused
I1-2	189	Unused
I1-3	189	Unused
I1-4	189	Unused
I1-5	189	Unused
I1-6	189	Unused
I1-7	189	Unused
I1-8	189	Unused
I2-1	189	Unused
I2-2	189	Unused
I2-3	189	Unused
I2-4	189	Unused
I2-5	189	Unused
I2-6	189	Unused
I2-7	189	Unused
I2-8	189	Unused
I3-1	189	Unused
I3-2	189	Unused
I3-3	189	Unused
I3-4	189	Unused
I3-5	189	Unused
I3-6	189	Unused
I3-7	129	Ped Call 1
I3-8	189	Unused
I4-1	189	
I4-2		
I4-3		
I4-4		
I4-5	189	Unused
I4-6	189	Unused
I4-7	229	33xCMUStop
I4-8	228	33xFlashSns
I5-1	189	Unused
I5-2	189	Unused
I5-3	189	Unused
I5-4	189	Unused
I5-5	189	Unused
I5-6	189	Unused
I5-7	189	Unused
I5-8	189	Unused
I6-1	189	Unused
I6-2	189	Unused
I6-3	189	Unused
I6-4	189	Unused
I6-5	189	Unused
I6-6	189	Unused
I6-7	189	Unused
I6-8	189	Unused

C1-USER IO Map [1.8.9.2 Out]

O1-1	1	Ch1 Red
O1-2	49	Ch1 Green
O1-3	2	Ch2 Red
O1-4	26	Ch2 Yellow
O1-5	50	Ch2 Green
O1-6	3	Ch3 Red
O1-7	27	Ch3 Yellow
O1-8	51	Ch3 Green
O2-1	4	Ch4 Red
O2-2	52	Ch4 Green
O2-3	5	Ch5 Red
O2-4	29	Ch5 Yellow
O2-5	53	Ch5 Green
O2-6	6	Ch6 Red
O2-7	30	Ch6 Yellow
O2-8	54	Ch6 Green
O3-1	7	Ch7 Red
O3-2	55	Ch7 Green
O3-3	8	Ch8 Red
O3-4	32	Ch8 Yellow
O3-5	56	Ch8 Green
O3-6	9	Ch9 Red
O3-7	33	Ch9 Yellow
O3-8	57	Ch9 Green
O4-1	10	Ch10 Red
O4-2	58	Ch10 Green
O4-3	11	Ch11 Red
O4-4	35	Ch11 Yellow
O4-5	59	Ch11 Green
O4-6	12	Ch12 Red
O4-7	36	Ch12 Yellow
O4-8	60	Ch12 Green
O5-1	28	Ch4 Yellow
O5-2	34	Ch10 Yellow
O5-3	25	Ch1 Yellow
O5-4	31	Ch7 Yellow
O5-5	39	Ch15 Yellow
O5-6	63	Ch15 Green
O5-7	115	Not Used
O5-8	114	Watchdog
O6-1	115	Not Used
O6-2	115	Not Used
O6-3	13	Ch13 Red
O6-4	37	Ch13 Yellow
O6-5	61	Ch13 Green
O6-6	14	Ch14 Red
O6-7	38	Ch14 Yellow
O6-8	62	Ch14 Green

C1-USER IO Map [1.8.9.2 Out]

O7-1	40	Ch16 Yellow
O7-2	16	Ch16 Red
O7-3	64	Ch16 Green
O7-4	115	Not Used
O7-5	115	Not Used
O7-6	115	Not Used
O7-7	115	Not Used
O7-8	15	Ch15 Red

C11S-USER IO Map [1.8.9.1 In]

I4-1		
I4-2		
I4-3		
I4-4		
I7-1	189	Unused
I7-2	189	Unused
I7-3	189	Unused
I7-4	189	Unused
I7-5	189	Unused
I7-6	189	Unused
I7-7	189	Unused
I7-8	189	Unused
I8-1	189	Unused
I8-2	189	Unused
I8-3	189	Unused
I8-4	189	Unused
I8-5	189	Unused
I8-6	189	Unused
I8-7	189	Unused
I8-8	189	Unused

C11S-USER IO Map [1.8.9.2 Out]

O8-1	115	Not Used
O8-2	115	Not Used
O8-3	115	Not Used
O8-4	115	Not Used
O8-5	115	Not Used
O8-6	115	Not Used
O8-7	115	Not Used
O8-8	115	Not Used

IO Logic [1.8.7]

Op1	Result		O1Fcn	Inv1	Src1	IO1	Fun1	O2Fcn	Inv2	Src2	IO2	Fun2	O3Fcn	Inv3	Src3	IO3	Fun3	Dly	Sec
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0

Security Access Levels [8.2]

1	SWLOAD
2	SECURE
3	None
4	None
5	None
6	None
7	None
8	None
9	None
10	None
11	None
12	None
13	None
14	None
15	None
16	None
17	None
18	None
19	None
20	None
21	None

22	None
23	None
24	None
25	None
26	None
27	None
28	None
29	None
30	None
31	None
32	None
33	None
34	None
35	None
36	None
37	None
38	None
39	None
40	None
41	None
42	None

43	None
44	None
45	None
46	None
47	None
48	None
49	None
50	None
51	None
52	None
53	None
54	None
55	None
56	None
57	None
58	None
59	None
60	None
61	None
62	None
63	None
64	None

Com Parameters [6.1]

Station ID	2926
Group ID	0
Master ID	0
Backup Time	900

SysUp Modem [6.1]

Enable Modem	None
Idle Time	0
Dial Time	0
Tel:	
Alt:	

2070 Port Parms [6.2]

Port	Baud Rate	FCM
SP1	9600	6
SP2	9600	6
SP3	19200	6
SP4	38400	6
SP5	1200	0
SP6	1200	0
SP7	1200	0
SP8	1200	0

2070 IP 1 Addressing [6.5]

	Addressing			
Addr	192	168	0	100
Mask	255	255	255	0
Brdcst	0	0	0	0
GtWay	192	168	0	1
Port	###			

2070 IP 2 Addressing [6.5]

	Addressing			
Addr	192	168	0	100
Mask	255	255	255	0
Brdcst	0	0	0	0
GtWay	192	168	0	1
Port	5001			

2070 Port Binding Ports [6.6]

	Port	Echo	Mode
ASYNC1	SP1	None	0
ASYNC2	SP2	None	0
ASYNC3	OFF	None	0
ASYNC4	SP4	None	0
SYNC1	SP5	SYNC3	OFF
SYNC2	SP3	SYNC4	OFF

2070 Port Binding Functions [6.6]

Function	Channel	Function	Channel
TS2/CVN	ASYNC3	SYSUp	ASYNC2
CMU/MN	None	SYSDow	ASYNC1
Opticom	None	Shell	None
Loop De	None		
GPS	None		

D-26A
Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

Signal: **D-26A**
File: 13.01-9D
D/HWP: D256460
PIN:

TABLE OF SWITCH PACKS

Date: 2/2/2023

SWITCH PACK	FUNCTION	INDICATIONS	FACE	TERMINAL	WIRE COLOR CODE	FACE	TERMINAL	WIRE COLOR CODE
1	Ø1	Red	1	SP 1 R	14/15C-E-R	2	SP 1 R	14/10C-F-R
		Yellow		SP 1 Y	14/15C-E-O		SP 1 Y	14/10C-F-O
		Green		SP 1 G	14/15C-E-G		SP 1 G	14/10C-F-G
		Ground Wire		Grnd Bus	14/15C-E-W		Grnd Bus	14//10C-F-W
2	Ø2	- - - - -	3	SP 2 R	- - - - - -		SP 2 R	
		⟵		SP 2 Y	14/10C-C-O/B		SP 2 Y	
		←		SP 2 G	14/10C-C-G/B		SP 2 G	
		Ground Wire		Grnd Bus	14/10C-C-W/B		Grnd Bus	
3	Ø3	Red	7	SP 3 R	14/15C-E-R/W	8	SP 3 R	14/10C-F-R/B
		Yellow		SP 3 Y	14/15C-E-BL/W		SP 3 Y	14/10C-F-O/B
		Green		SP 3 G	14/15C-E-G/W		SP 3 G	14/10C-F-G/B
		Ground Wire		Grnd Bus	14/15C-E-B/W		Grnd Bus	14/10C-F-W/B
4.	PED-1 Ø3	HAND	23	SP 4 R	14/5C-1P-R		SP 4 R	
		- - - - - - -		SP 4 Y	- - - - - -		SP 4 Y	
		MAN		SP 4 G	14/5C-1P-G		SP 4 G	
		Ground Wire		Grnd Bus	14/5C-1P-W		Grnd Bus	
5.	Ø5	Red	3	SP 5 R	14/10C-C-R	4	SP 5 R	14/5C-A-R
		Yellow		SP 5 Y	14/10C-C-O		SP 5 Y	14/5C-A-O
		Green		SP 5 G	14/10C-C-G		SP 5 G	14/5C-A-G
		Ground Wire		Grnd Bus	14/10C-C-W		Grnd Bus	14/5C-A-W
6.	Ø6	- - - - -	1	SP 6 R	- - - - - -		SP 6 R	
		⟵		SP 6 Y	14/15C-E-O/B		SP 6 Y	
		←		SP 6 G	14/15C-E-G/B		SP 6 G	
		Ground Wire		Grnd Bus	14/15C-E-W/B		Grnd Bus	
7.				SP 7 R			SP 7 R	
				SP 7 Y			SP 7 Y	
				SP 7 G			SP 7 G	
		Ground Wire		Grnd Bus			Grnd Bus	
8				SP 8 R			SP 8 R	
				SP 8 Y			SP 8 Y	
				SP 8 G			SP 8 G	
		Ground Wire		Grnd Bus			Grnd Bus	
9				SP 9 R			SP 9 R	
				SP 9 Y			SP 9 Y	
				SP 9 G			SP 9 G	
		Ground Wire		Grnd Bus			Grnd Bus	
10				SP 10 R			SP 10 R	
				SP 10 Y			SP 10 Y	
				SP 10 G			SP 10 G	
		Ground Wire		Grnd Bus			Grnd Bus	
11.				SP 11 R			SP 11 R	
				SP 11 Y			SP 11 Y	
				SP 11 G			SP 11 G	
		Ground Wire		Grnd Bus			Grnd Bus	
12.				SP 12 R			SP 12 R	
				SP 12 Y			SP 12 Y	
				SP 12 G			SP 12 G	
		Ground Wire		Grnd Bus			Grnd Bus	
13	Ø3	Red	5	SP 13 R	14/5C-D-R	6	SP 13 R	14/5C-B-R
		Yellow		SP 13 Y	14/5C-D-O		SP 13 Y	14/5C-B-O
		Green		SP 13 G	14/5C-D-G		SP 13 G	14/5C-B-G
		Ground Wire		Grnd Bus	14/5C-D-W		Grnd Bus	14/5C-B-W
14.				SP 14 R			SP 14 R	
				SP 14 Y			SP 14 Y	
				SP 14 G			SP 14 G	
		Ground Wire		Grnd Bus			Grnd Bus	
15				SP 15 R			SP 15 R	
				SP 15 Y			SP 15 Y	
				SP 15 G			SP 15 G	
		Ground Wire		Grnd Bus			Grnd Bus	
16				SP 16 R			SP 16 R	
				SP 16 Y			SP 16 Y	
				SP 16 G			SP 16 G	
		Ground Wire		Grnd Bus			Grnd Bus	

D-26A
Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

Signal: **D-26A**
File: 13.01-9D
D/HWP: D256460
PIN:
Date: 2/2/2023

TRAFFIC SIGNAL MONITOR PROGRAMMING

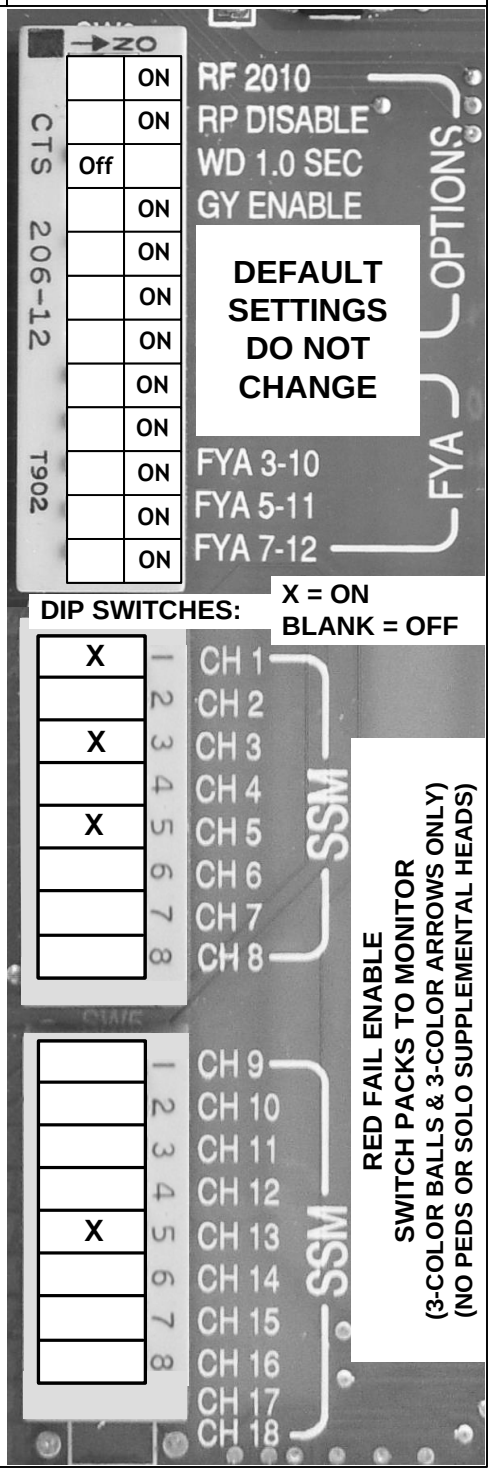
CONFLICT MONITOR DIODES TO BE CUT
(SWITCH PACKS TO RUN TOGETHER)

1-5	**2-5**	**3-4**
1-6	**2-6**	**3-13**
4-13		

YELLOW DISABLE:
WIRE JUMPERS
TO BE INSTALLED FOR
PEDS

1	
2	
3	
4	X
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

210NYR MONITOR BOARD
(SWITCH PACKS TO MONITOR)



CURRENT MONITOR BOARD
(IF USED)

CURRENT MONITOR DIODES TO BE CUT (SWITCH PACKS TO *NOT* MONITOR)
2,4,6-12,14-18

Notes:

D-26A
Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

Signal: **D-26A**
File: 13.01-9D
D/HWP: D256460
PIN:

Date: 2/2/2023

TABLE OF INPUT WIRING

SDLC CHANNEL	FUNCTION	DET. ZONE NO.	DET. TYPE	DET. AN OVER	REMARKS
41	**Ø1**	33	GRIDSMART		PRESENCE
42	**Ø2**	34	GRIDSMART		PRESENCE
43	**Ø3**	35	GRIDSMART		PRESENCE
44					
45	**Ø5**	37	GRIDSMART		PRESENCE
46	**Ø6**	38	GRIDSMART		PRESENCE
47					
48					
49	**Ø3 (EB-RT)**	49	GRIDSMART		COUNT
50	**Ø3 (EB-STRAIGHT)**	50	GRIDSMART		COUNT
51	**Ø3 (EB-LT)**	51	GRIDSMART		COUNT
52	**Ø5 (SB-RT)**	52	GRIDSMART		COUNT
53	**Ø5 (SB-STRAIGHT)**	53	GRIDSMART		COUNT
54	**Ø2 (SB-LT)**	54	GRIDSMART		COUNT
55	**Ø3 (WB-RT)**	55	GRIDSMART		COUNT
56	**Ø3 (WB-STRAIGHT)**	56	GRIDSMART		COUNT
57	**Ø3 (WB-LT)**	57	GRIDSMART		COUNT
58	**Ø1 (NB-RT)**	58	GRIDSMART		COUNT
59	**Ø1 (NB-STRAIGHT)**	59	GRIDSMART		COUNT
60	**Ø6 (NB-LT)**	60	GRIDSMART		COUNT
25A, 25B	**PED-A Ø3**	23	BUTTON		PEDESTRIAN

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Appendix E | American Community Survey Data

COMMUTING CHARACTERISTICS BY SEX

Note: This is a modified view of the original table produced by the U.S. Census Bureau. This download or printed version may have missing information from the original table.

	ZCTA5 12508					
	Total		Male		Female	
Label	Estimate	Margin of Error	Estimate	Margin of Er	Estimate	Margin of Erro
Workers 16 years and over	9,162	±595	4,636	±403	4,526	±372
MEANS OF TRANSPORTATION TO WORK						
Car, truck, or van	75.5%	±3.4	78.5%	±4.4	72.5%	±5.1
Public transportation (excluding taxicab)	10.1%	±2.2	8.8%	±3.1	11.4%	±3.5
Walked	3.3%	±1.5	2.7%	±1.6	4.0%	±2.1
Bicycle	0.4%	±0.6	0.8%	±1.2	0.0%	±0.8
Taxicab, motorcycle, or other means	0.4%	±0.5	0.4%	±0.6	0.5%	±0.9
Worked from home	10.3%	±2.3	9.0%	±2.9	11.6%	±3.1
PLACE OF WORK						
Workers 16 years and over who did not work from home	8,222	±566	4,221	±392	4,001	±345
VEHICLES AVAILABLE						
Workers 16 years and over in households	9,129	±591	4,612	±395	4,517	±372
No vehicle available	4.9%	±2.2	5.3%	±3.1	4.4%	±2.5
1 vehicle available	25.6%	±3.9	24.1%	±5.4	27.2%	±4.4
2 vehicles available	40.3%	±5.6	42.6%	±6.5	38.0%	±6.3
3 or more vehicles available	29.2%	±5.0	28.0%	±5.2	30.4%	±5.8
PERCENT ALLOCATED						

Table Notes

COMMUTING CHARACTERISTICS BY SEX

Survey/Program: American Community Survey
Year: 2021
Estimates: 5-Year
Table ID: S0801

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Source: U.S. Census Bureau, 2017-2021 American Community Survey 5-Year Estimates

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see ACS Technical Documentation). The effect of nonsampling error is not represented in these tables.

The 12 selected states are Connecticut, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and Wisconsin.

Workers include members of the Armed Forces and civilians who were at work last week.

When information is missing or inconsistent, the Census Bureau logically assigns an acceptable value using the response to a related question or questions. If a logical assignment is not possible, data are filled using a statistical process called allocation, which uses a similar individual or household to provide a donor value. The "Allocated" section is the number of respondents who received an allocated value for a particular subject.

Several means of transportation to work categories were updated in 2019. For more information, see: Change to Means of Transportation.

The 2017-2021 American Community Survey (ACS) data generally reflect the March 2020 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas. In certain instances, the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB delineation lists due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Explanation of Symbols:

-

The estimate could not be computed because there were an insufficient number of sample observations. For a ratio of medians estimate, one or both of the median estimates falls in the lowest interval or highest interval of an open-ended distribution. For a 5-year median estimate, the margin of error associated with a median was larger than the median itself.

N

The estimate or margin of error cannot be displayed because there were an insufficient number of sample cases in the selected geographic area.

(X)

The estimate or margin of error is not applicable or not available.

median-

The median falls in the lowest interval of an open-ended distribution (for example "2,500-")

median+

The median falls in the highest interval of an open-ended distribution (for example "250,000+").

**

The margin of error could not be computed because there were an insufficient number of sample observations.

***

The margin of error could not be computed because the median falls in the lowest interval or highest interval of an open-ended distribution.

*****

A margin of error is not appropriate because the corresponding estimate is controlled to an independent population or housing estimate. Effectively, the corresponding estimate has no sampling erro and the margin of error may be treated as zero.

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Appendix E | DCTC Beekman Street Complete Streets Analysis

City of Beacon: Beekman Street Complete Streets Analysis

A. Introduction

The Beacon waterfront is home to several key destinations, including the Metro-North train station, Long Dock Park, the Beacon-Newburgh Ferry dock, the Beacon Farmers Market, and Riverfront Park, as well as a local trail system. However, the waterfront is separated from Main St by a half-mile with a substantial hill, and there is not a direct walking or bicycling route connecting them.

To address this, the City of Beacon requested that the DCTC evaluate ways to improve walking and bicycling access and safety between Main Street and the Beacon train station. The City specifically requested an evaluation of Beekman Street between Route 9D and Red Flynn Drive/Long Dock Park Road. DCTC also evaluated West Main Street and other potential connections.

Improving connections between the train station and Main Street is especially critical given the amount of current and proposed development in the area, including planned transit-oriented development (TOD) around the train station. Our recommendations include new and improved sidewalks, shorter and more visible crosswalks, dedicated street space for bicycles, bicycle parking, and consistent wayfinding signage. Using these tools, the City can make the Beekman Street area safer, more accessible, and more comfortable for everyone, regardless of how they choose to travel.

B. Existing Conditions

We evaluated existing conditions on Beekman St, West Main St, and the train station area in early May, 2017. This included taking measurements and photographs, and observing people using the streets. We also collected background data from the DCTC's traffic count database and other sources. Traffic count reports are provided in the Appendix; see also the Existing Conditions map and Existing Street Sections graphics at the end of this report.

Beekman Street

- Annual Average Daily Traffic volume (AADT): about 5,500 (evenly split northbound/southbound)
    - Peaks: 6-7 am southbound (downhill); 6-7 pm northbound (uphill)
    - Heavy vehicles: about 2.5% of traffic
- Speed limit: 30 mph; 85% speed: 36 mph uphill, 37 mph downhill; average speed: 27 mph uphill, 31 mph downhill
- Average slope: 3.5% (ranges from 1.5% to 4.6%)
- Pavement width: 35-36 feet between Route 9D and River St; 33 feet between River St and Railroad Dr; 38 feet between Railroad Dr and Red Flynn Dr.
    - Travel lanes: typically 12-15 feet adjacent to parking; 12 feet in opposite direction
- On-street parking: train-station permit/metered parking on one side (east between 9D and River St; west south of River St; none south of Railroad Dr)
    - Marked spaces, 8 feet wide x 21 feet long
- Sidewalks: on both sides between 9D and West Main; on east side only between West Main St and Ferry St; on west side only south of Ferry St.
    - Typically 5 feet wide; with a 3-foot brick buffer between 9D and a point 300 feet south of West Main St; 5 feet with no buffer south of that point.

- Utilities:
    - Light poles on the west side, typically about 10 feet behind the curb (some are closer)
    - Utility poles on the east side, 15-20 feet behind the curb (from 9D to north of West Main St)
    - Guard rail on the west side; behind sidewalk from 9D to 350 feet south; about 10 feet behind the curb from 200 feet south of West Main St to 130 feet north of River St.

West Main Street

- Annual Average Daily Traffic volume (AADT): about 1,600 (84% westbound)
    - Peaks: 6-7 am westbound (downhill); 3-4 pm eastbound (uphill)
    - Heavy vehicles: about 5.5% of traffic
- Speed limit: 25 mph; 85% speed: 34 mph uphill, 36 mph downhill; average speed: 24 mph uphill, 29 mph downhill
- Average slope: 6.6% (ranges from about 4% to more than 9%)
- Pavement width: about 34 feet (24 feet near the train station)
    - Travel lanes: about 10 feet in areas with parking; wider in areas with no parking
- On-street parking: unmarked, but allowed on both sides in middle segment (from about 330 feet south of Beekman St to the MTA property line south of the auto repair business).
    - Some restrictions for driveways/intersections
    - 4 hour limit on weekdays
- Sidewalks: on north side only
    - 8 feet wide with no buffer between Beekman St and Bank St; 5 feet with a 3-foot grass buffer between Bank St and the MTA property line; 4-6 feet with no buffer in the train station area.
- Utilities:
    - Utility/light poles on the south side, about 3 feet behind the curb (Beekman St to Bank St)
    - Utility/light poles on the north side, in sidewalk buffer (River St to train station area)

C. Observations

As part of our fieldwork in May 2017, we observed the condition of existing facilities, people walking, and evidence of 'desire lines' (worn paths in the grass, which reflect people's preference to take the shortest path to their destination). Key observations are listed below.

Infrastructure

1. ***Sidewalks***:

- Sidewalks are typically in good condition, except for some lifting due to tree roots (in particular, north of Ferry St, and north of River St)
- One obstruction was noted – a hydrant in the middle of the Beekman St sidewalk north of River St. In two places, the sidewalk was widened to provide (minimal) clearance around a light pole.

2. ***Buffers***:

- The brick buffer on Beekman St is broken in areas (e.g., on the west side near Route 9D and the east side between High St and West Main St).
- Many sidewalks lack a buffer (most of Beekman St south of West Main St; West Main St north of Bank St).

3. ***Crosswalks***:

- Most of the crosswalks outside of MTA property are standard crosswalks (two parallel lines), rather than high-visibility ladder crosswalks, such as the crosswalk below the MTA stairs.

- Several crosswalks are unnecessarily long, due to their placement.
- Crosswalks in the MTA area are red stamped concrete (faux brick) with two parallel white lines.
- A crosswalk is missing across the upper portion of Municipal Plaza to connect to the path to 9D/Main St.
- A standard crosswalk was marked on Beekman St north of Ferry St after our field observations; however, it lacks a curb ramp on the west side. An In-Street Pedestrian Crossing sign was later placed near the crosswalk.
- Two crosswalks lack ramps: the east side of the Beekman St crosswalk at River St, and the west side of the Beekman St crosswalk at Ferry St.
- Many crosswalk ramps lack detectable warning surfaces.

4. Warning signs

- There are four signs in the City Police parking lot warning pedestrians to look for emergency vehicles.
- The warning signs at the uncontrolled West Main St crossing are non-standard and hard to read, while the uncontrolled crosswalk at River St lacks pedestrian warning signs. The recently-installed In-Street Pedestrian Crossing sign at Ferry St is placed outside of the crosswalk (rather than in the center), and may be prone to damage.
- There is a standard pedestrian crossing warning sign (MUTCD W11-2) at the train station exit, with flashing beacons. However, it was unclear how the beacons were activated; no buttons were present, but it was unclear whether it could detect pedestrians passively.

5. Wayfinding signs

- There are at least four different types and styles of wayfinding signs. Only one has a map, and it is hard to read.

6. Amenities

- There are very few streetscape amenities outside of the train station area. There is no pedestrian-scale lighting, trashcans or bicycle parking racks along Beekman St or West Main St. The only benches we observed were in front of a building on the north side of West Main St. There are trees behind the sidewalk on portions of Beekman St, but no street trees in the sidewalk buffer area.

7. Bicycle Facilities

- There are no bicycle facilities (bike paths or lanes) and no bicycle-related lane markings or signs in the study area. There is limited short-term bicycle parking on the east side of the station near the entrance (wave racks with about 12 spaces), as well as one small rack on the west side, near the ferry dock (about 5 spaces). There are no bike lockers or other long-term bike parking.

Behavior

8. Walking: People walking from Main St to the train station generally cut through the City Police parking lot (using 3 flights of stairs), cut through the grass to Beekman St, cross Beekman St near High St, then cut through the grass to West Main St, and walk down West Main St to the station. This route is reversed for people walking from the station to Main St.

We observed a desire-line trail from the end of Ferry St to Route 9D. We expect that this reflects people who live south of Main St walking on 9D to Ferry St (via the trail), and then to the station via Railroad Dr.

On West Main St, we observed people walking in the street rather than on the sidewalk, possibly because the sidewalk on the western end of the street is relatively narrow.

9. ***Parking and Walking:*** People who park in the MTA spaces on northern Beekman St tend to access the station via West Main St, as described above. Those who park in the MTA spaces on Beekman St south of West Main St tend to walk to the station via Beekman St, the stairs just north of Ferry St, and Railroad Dr. We observed a desire line in the grass on the west side of Beekman St near the MTA Police building, indicating that some people take the stairs and walk through the grass to their car (if they parked near the MTA building), or walk to River St and the sidewalk on the east side of Beekman St, using the crosswalk at River St.

10. ***Bicycling*****:** The only bicyclists we observed were riding south on Beekman St. They appeared to be on a recreational ride, based on their attire. According to City staff, some bicyclists access the train station on the river side, using Beekman St and Red Flynn Dr. Based on discussions with some residents, local bicyclists often access the station via West Main St and use the overpass to access the platform (this is also evidenced by the number of bikes parked along the fence by the overpass). Others ride to the main entrance (non-river side), and park there, or bring their bike on the train. For the return, some bicyclists use West Main St, either riding a short distance against traffic, using the sidewalk, or walking their bike until the street becomes two-way. Others prefer the less steep hill on Beekman St, and return via Railroad Dr and Beekman St. This can involve navigating heavy traffic leaving the station, particularly at the end of the workday. One resident noted that he rides on the sidewalk from the station to Beekman St to avoid conflicts with vehicle traffic and "crazy" drivers. He also noted that riding uphill on Beekman St is "a little dicey" and more room for bicyclists would be helpful.

D. Route Options

Walking

Since most people prefer to take the shortest path when walking, we measured various route options between the train station area and Main St. A table of each route is included in the Appendix; see also the Walking Route Options map.

For comparison purposes, we assumed that people walk between the central train station building and the southeast corner of Main St and Route 9D. For an accessible route, using sidewalks but no stairs or shortcuts through the grass, walking via Beekman St and walking via West Main St are the same distance (both 0.63 mile). However, the Beekman St route is not fully accessible, as the crossing just north of Ferry St lacks a curb ramp (and is uncontrolled). If using stairs and shortcuts, walking via Beekman St is just 50 feet shorter than West Main St (0.51 mile vs 0.52 mile).

The planned path between Beekman St and Route 9D will include stairs, so it is not an accessible option. Using the MTA stairs and planned path/stairs would be about 225 feet longer than the standard Beekman St 'shortcuts' route, which cuts through the Municipal Plaza (0.55 mile vs 0.51 mile). Similarly for West Main St, using the planned path would be longer than the West Main St 'shortcuts' route, which cuts through the Municipal Plaza (0.59 mile vs 0.52 mile). However, this planned path (or the planned path and stairs at the end of Ferry St) would be a good option for destinations south of Main St.

If people are able to start or end at the train station overpass, walking via West Main St is by far the shortest route—about 0.40 mile using stairs and shortcuts, and 0.46 mile using the planned path. However, this option is inherently inaccessible because it relies on using the train station overpass.

Based on this analysis and our observations, **we recommend focusing pedestrian improvements on Beekman St,** and considering potential improvements on West Main St. In particular, **improving accessibility** will enable people of all ages and abilities to travel safely between Main St and the train station area. Specific recommendations are listed in Part F below.

Bicycling

Bicyclists are typically willing to take a slightly longer route if it feels safer and more comfortable. The "Level of Traffic Stress" (LTS) is the current state of the practice measurement of bicycle comfort. The LTS is based on a street's traffic volume and traffic speed, as well as the type of bicycle facility, if one exists. Levels of traffic stress range from 1 to 4. Lower-stress streets have lower speeds, volumes, and fewer lanes, or have separated bike paths or protected bike lanes/cycle tracks. LTS 1 represents streets that are suitable for all ages and abilities; LTS 2 represents streets that most adults can ride on comfortably; LTS 3 represents streets that experienced and confident riders can feel comfortable on; LTS 4 represents streets where only the most fearless riders would feel comfortable. In their current condition, based on the traffic data above, Beekman St would be classified as LTS 3 or 4, while West Main St would be classified as LTS 1 or 2.[1]

> The LTS methodology explains, "Stress is lower if average daily traffic (ADT) is 3,000 or less **and** no centerline is marked. (Most quiet, local streets have both of these characteristics.) On such streets, cars tend to drive in the middle of the street, moving to the side when meeting an oncoming vehicle. It's far less stressful sharing a road with cars where the cars are actively sharing the road with each other in the same way."

Based on existing conditions, West Main St would be the preferred bicycle connection between Main St and the train station. However, a route is only as good as its weakest link—a high stress segment makes the entire route more stressful. Currently, bicyclists need to ride on a short portion of 9D (or cut through the Municipal Plaza) and the northern portion of Beekman St to access West Main St. In addition, Railroad Dr between West Main St and the train station entrance is one-way westbound/southbound. Finally, West Main St has a substantial grade, making the uphill direction difficult for many potential bicyclists. For the West Main St route to be more functional, Railroad Dr should be redesigned to allow eastbound bicycle access, at least from the overpass to West Main St. Longer-term, Railroad Dr could be redesigned to allow two-way bicycle access between West Main St and the main station entrance. This may be feasible in coordination with future redevelopment of the train station area. In the interim, bicyclists may choose to use West Main St to access the station, and return via Beekman St.

We understand that many bicyclists cross Route 9D from Main St and ride through the Municipal Plaza to Beekman St. However, this is not recommended due to potential conflicts with drivers entering and exiting parking spaces, as well as the uncontrolled turn across Beekman St (heading south). Any redesign of the Municipal Plaza property should incorporate a safe bicycle access route, such as a path separate from parking areas.

Based on NYSDOT data, traffic volumes and speeds on Route 9D south of Main St are slightly higher than on Beekman St (approximately 6,500 AADT vs 5,500, and 85% speeds of 37-39 mph, vs 36-37 mph), while volumes and speeds on Route 9D north of Main St are significantly higher (approximately 23,000 AADT and 85% speeds of 40 mph). However, the data for the northern section is based on a count taken just south of I-84, so it is likely that the volume between Main St and Beekman St is substantially lower than NYSDOT's estimate.

[1] See http://www.northeastern.edu/peter.furth/research/level-of-traffic-stress/

Based on the evaluation above, we recommend focusing bicycle infrastructure improvements on Beekman St, with connections to the train station via Railroad Dr and Red Flynn Dr. Longer-term, we recommend pursuing two-way bicycle access along Railroad Dr and a bike path connecting Main St to Beekman St.

E. Bicycle Facility Options

We evaluated the following bicycle facilities, based on recent best practice guidance.[2] We assumed no changes to the existing roadway widths and no removal of on-street parking. A summary spreadsheet is included in the Appendix.

- ***Shared Street/Bicycle Boulevard***: Per guidance from the National Association of City Transportation Officials (NACTO), shared streets work best when target vehicle speeds[3] are below 10 mph. However, bicycle boulevards can work on streets with target speeds up to 25 mph and average daily traffic (ADT) up to 1,500, if there are fewer than 50 vehicles per hour in the peak hour and peak direction. Bicycle Boulevards include sharrows (shared lane-use markings) to highlight bicyclists' right to ride in the travel lane, wayfinding signs, and traffic calming treatments.

- ***Bicycle Lanes/Buffered Bike Lanes***: Bike lanes provide dedicated on-street space for bicyclists. Per NACTO, bike lanes work best if target speeds do not exceed 25 mph and ADT does not exceed 6,000. Bike lanes should be at least 5 feet wide. Buffered bike lanes include a striped buffer of at least 18 inches between the bike lane and the adjacent travel lane and/or parking lane.

- **Protected Bike Lanes/Cycle Track**: NACTO recommends protected bike lanes (also called cycle tracks) for streets with target speeds above 26 mph or ADT above 6,000. Protected bike lanes are physically separated from the adjacent travel lane by parking, planters, bollards, or a raised curb. Protected bike lanes can be one-way or two-way (on one side of the street). One-way cycle tracks should be at least 5 feet wide with a 3 foot separation from the travel or parking lane, while two-way cycle tracks should be at least 8 feet wide (12 feet is preferred) with a 3 foot separation from the travel or parking lane.

- ***Bike Path/Shared-Use Path***: Separated paths, either for bicycles only or shared with pedestrians, work best where there are few intersections or driveways-- some guidance suggests fewer than five per mile. Per NYSDOT guidance, paths should be at least 10 feet wide (12 feet or wider is preferred) and set back at least 5 feet from an adjacent roadway.

A description of our analysis of bicycle facility options for each street follows.

Beekman St: Based on NACTO guidance and current traffic volumes and speeds, the recommended treatment for Beekman St would be a protected bike lane. However, given the road width, this would be feasible in one direction only. There is insufficient width for a two-way protected bike lane (or for two separate bike lanes) unless the on-street parking was removed.

Therefore, we recommend a **bike lane (protected where feasible) in the uphill/northbound direction, and sharrows in the downhill/southbound direction.** A bike lane gives bicyclists dedicated space uphill, when they are

[2] See the NACTO Urban Bikeway Design Guide at https://nacto.org/publication/urban-bikeway-design-guide/ and NACTO's Designing for All Ages & Abilities guidance at https://nacto.org/publication/urban-bikeway-design-guide/designing-ages-abilities-new/.

[3] NACTO defines target speed as the posted or 85th percentile speed, but encourages use of the 95th percentile speed.

traveling significantly slower than motor vehicles, while sharrows encourage them to 'take the lane' if needed when they are traveling downhill, at speeds more consistent with motor vehicles. Sharrows should be placed in the center of the 'effective lane' (see NYSDOT's Shared Lane Marking Policy in the Appendix).

From River St to 9D (northbound), there is room for a protected bike lane. It would be located adjacent to the curb, with a striped buffer between it and the parking lane. If the travel lanes were reduced to 10 feet, there would be room for a five-foot bike lane and three-foot buffer adjacent to the 8 foot parking lane. These widths are consistent with NACTO's guidance (they also recommend a 7-foot bike lane on uphill sections to allow bicyclists to pass each other, but that is infeasible given existing conditions and likely unnecessary). Sharrows would be marked in the southbound travel lane, adjacent to the curb.

At intersections, parking should be limited to improve visibility and allow bicycle access between the bike lane and the side street. Parkers would also need to be educated to look for bicyclists before crossing to the sidewalk. That said, conflicts are less likely here than on a commercial street with on-street parking, given the low turnover of the spaces and the relatively slow speed of bicyclists riding uphill. At the 9D intersection approach, a 'mixing zone' (combined bike lane/turn lane) may be needed.[4] This would require NYSDOT approval.

From Ferry St to River St (northbound), there is room for a conventional five-foot bike lane if travel lanes are narrowed to ten feet (as above). The bike lane would be placed between the curb and the travel lane. Sharrows would be marked in the southbound direction, adjacent to the 8 foot parking lane.

From Red Flynn Dr to Ferry St (northbound), there is room for a buffered bike lane. The buffer would separate the five-foot bike lane from the travel lane. The buffer should be two to three feet, depending on the width of the travel lanes. Sharrows would be marked in the southbound lane/right turn lane to access riverside destinations.

We recommend ten-foot travel lanes to help calm traffic and provide enough bike lane and buffer space for bicyclist comfort. However, 10.5-foot lanes could be used if the City feels wider lanes are needed to accommodate buses, trucks, or other vehicles. In that case, the parking lane would be reduced to 7 feet. Note that this would fall short of NACTO's recommended combined 11 foot width for the parking lane and buffer for parking-protected bike lanes. A narrower parking lane could also be less comfortable for southbound bicyclists riding next to the parking lane between River St and Railroad Ave, though these spaces have low turnover.

These treatments assume that there will continue to be on-street parking on one side of Beekman St. If the on-street parking were removed, protected bike lanes could be provided in both directions between Ferry St and 9D, with up to three-foot buffers (bollards, curbing, or planters could be used). A two-way protected bike lane would also be possible, but would require careful design treatments at intersections.

West Main St: Based on NACTO guidance and current traffic volumes and speeds, the preferred treatment would be a bike lane, ideally protected, but possibly conventional or buffered. However, there is insufficient width for bike lanes unless on-street parking were removed. As a basic improvement, we recommend **sharrows and signage** on West Main St, connecting to the station entrance in the downhill direction, and at least from the MTA property line to Beekman St in the uphill direction. Longer-term, Railroad Dr could be reconfigured to allow two-way bicycle access between the main station entrance and West Main St (such as with a bicycle path).

[4] See https://nacto.org/publication/urban-bikeway-design-guide/intersection-treatments/cycle-track-intersection-approach/ for more details.

Route 9D: Based on NACTO guidance and current traffic volumes and speeds, the preferred treatment would be protected bike lanes or a separate path. However, there is insufficient width for bike lanes. A path on the west side of Route 9D may be feasible, either as part of a redesign of the Municipal Plaza, or wrapping around the Municipal Plaza parking to the north, to connect Main St to Beekman St.

If a path were to be constructed, we suggest considering stop signs on Beekman St to control traffic for bicyclists exiting from the connecting path onto southbound Beekman St. At a minimum, sight distance at that location would need to be evaluated to ensure that exiting bicyclists and approaching drivers have a clear view, and bicycle crossing warning signs installed.

As a basic, interim improvement, **sharrows and signage** could be marked on Route 9D in both directions between Main St and Beekman St. This would require NYSDOT approval. In addition, NYSDOT should improve the traffic signals at the 9D/Main St and 9D/Beekman St intersections to improve detection and timing for bicyclists.

Railroad Dr & Red Flynn Dr: We did not evaluate these streets in detail, but based on estimated roadway widths, it appears that both could accommodate a bike lane on one side of the street if travel lanes were narrowed. To provide consistency with the other recommendations, we suggest a **bike lane in the uphill direction (away from the station), and sharrows in the downhill direction (towards the station)**.

A summary of the recommendations are listed in Part F below and shown in the Pedestrian Recommendations map, Bicycle Recommendations map, and Proposed Street Sections at the end of this report.

F. Recommendations

Specific recommendations are outlined below. Priority items are *starred and **bolded**.

A. Pedestrian Access and Safety

Improve access through the Municipal Plaza:

The City should improve pedestrian access and safety through the Municipal Plaza, while also promoting alternate routes, such as the planned path to 9D. As noted above, the 'shortcut' routes through the Municipal Plaza are the most direct, and people will likely continue to use them. However, they are not accessible, and walking through the police parking lot presents potential conflicts with vehicles entering and exiting parking spaces.

- Mark a walking path through the parking area to increase drivers' awareness of pedestrians.
- Mark a high-visibility ladder crosswalk across Municipal Plaza between the stairs at the top and the path to Route 9D.
- Pave/formalize the desire line in the grass at the southwest corner of Beekman St and Municipal Plaza. This appears to include a small piece of Central Hudson property, but the paved path could be aligned to include only City property.

- ***Explore a re-design of the property to provide accessible alternatives to the stairs,** such as the concept shown in the Appendix to the City's 2007 Comprehensive Plan[5].

Complete missing connections:

- ***Install a sidewalk on the west side of Beekman St between West Main St and the MTA stairs** (approximately 1,150 feet). This sidewalk should be at least 5 feet wide, and include a 5-foot buffer with street trees where feasible. Based on our observations, at least two light poles (in front of the MTA building, and north of River St), and two hydrants (just south of West Main St, and halfway to River St) would need to be relocated.

- Longer-term, pursue pedestrian access through the MTA Police building parcel, as envisioned in the Comprehensive Plan. The police building is located directly between the train station and Beekman St. Access through this parcel would substantially shorten the walking route between the train station and Beekman St.

Improve Infrastructure:

- Repair sidewalk lifts and cracks through shaving or replacement. Focus in particular on lifts on Beekman St between River St and Ferry St/Railroad Dr.

- Replace the brick buffer on Beekman St with a more durable and stable material, such as stamped concrete, or with grass.

- Remove obstructions or widen the sidewalk around obstructions. Maintain a minimum 3-foot clearance (wider if possible). Specifically:
  - Widen the sidewalk around the hydrant on the east side of Beekman St just north of River St.
  - Check clearance around the pole on the east side of Beekman St just south of River St, and widen if possible.

- On West Main St, consider the following sidewalk improvements as long-term options in coordination with future land use changes (we understand that on-street parking will likely be needed on both sides of the street to serve existing and future development):
  - Widen the 5-foot sidewalk west of Bank St to 8 feet, consistent with the segment east of Bank St, to accommodate increased pedestrian activity.
  - If feasible, install a consistent buffer between the sidewalk and curb for the entire length of the street.

***Make Safer Crosswalks**:*

- ***Stripe all crosswalks with high-visibility white ladder markings** (such as across Municipal Plaza at Beekman St). Avoid using red crosswalks, as they are less visible than white at night.

- ***Install consistent signage for all uncontrolled crosswalks,** such as advance Pedestrian Crossing and Pedestrian Crossing warning signs (MUTCD sign W11-2; see Section 2C.50). In-Street Pedestrian Crossing

[5] See the conceptual plan entitled 'Connecting Beacon's Main Street with the Hudson River and Railroad Station.'

signs (MUTCD sign R1-6; see Section 2B.12) may be used but often become damaged. Encourage MTA/Metro-North to install consistent signs at uncontrolled crosswalks within their property as well.

- ***Shorten crossings as much as possible to maximize safety and convenience.** Specifically:
  - Crossing Beekman St at Route 9D – Reduce the curb radii and/or re-locate the crosswalk to the west to reduce the crossing length. Reconfigure the ramps to direct people into the crosswalk rather than the center of the intersection.
  - Crossing Beekman St at West Main St – Redesign the crosswalk to be straight instead of diagonal, reducing the crossing distance. This would involve replacing the ramp on the east side.
    - Consider an all-way stop at this intersection to improve safety at the crosswalk (and access from West Main St to Beekman St).
  - Crossing Beekman St at River St – Reduce the curb radius on the west side to shorten the crossing. Add a curb ramp on the east side.
  - Crossing Beekman St at Ferry St/MTA stairs – Upgrade the recently marked crosswalk to a high-visibility ladder crosswalk, install a curb extension on the west side to make pedestrians visible between parked cars and to help pedestrians see oncoming traffic, and construct a curb ramp on the west side of the crosswalk.
  - Crossing the MTA parking lot at Railroad Dr – Work with Metro-North/MTA to realign the diagonal crosswalk to connect directly to the stairs.
  - Install detectable warnings on all curb ramps to alert vision-impaired pedestrians of the transition to the street.

- Mark high-visibility crosswalks on side streets to increase driver awareness of pedestrians. Recommended locations include:
  - Across West Main St at Beekman St (in coordination with the recommended sidewalk on the west side of Beekman St).
  - Across River St at Beekman St (in coordination with the recommended sidewalk on the west side of Beekman St).
  - Across Bank St at West Main St.

  The City asked about using raised crosswalks to slow traffic and increase yielding to pedestrians at uncontrolled marked crossings (such as Beekman St at West Main St, River St, and Ferry St/MTA stairs). However, raised crosswalks are typically used at mid-block crossings with very high pedestrian volumes or above-average pedestrian crash rates, and are usually not appropriate on bus routes or segments with steep grades.[6]

Provide Amenities and Wayfinding Signage:

- ***Develop a consistent format for pedestrian wayfinding signs throughout the study area.** Signs should clearly show destinations and recommended walking routes. In particular, provide wayfinding signage to direct people from the train station to Main Street via West Main St, and vice versa (existing signs at the train station direct people via Railroad Dr). New public walking paths/routes should also be promoted with wayfinding signage.

[6] See http://www.pedbikesafe.org/PEDSAFE/countermeasures_detail.cfm?CM_NUM=7.

- Develop one preferred accessible route, and clearly sign it to assist those with mobility limitations. Until the missing curb ramp is installed on Beekman St north of Ferry St and/or other accessibility improvements are made, the only fully accessible route is via West Main St. However, it has a significant grade.

- Install amenities along Beekman St, West Main St, and other routes as needed, including consistent street trees and pedestrian-scale lighting, as well as trash/recycling cans and benches at key locations.

- Snow plowing: We did not observe conditions during the winter, but understand from some residents that sidewalk plowing could be improved. On Beekman St, snow could be stored in the buffer area (where one exists) or behind the sidewalk. On West Main St, the existing and proposed buffer areas could be used for snow storage. Particular attention should be focused on plowing at curb ramps and crosswalks to maintain accessibility.

B. Bicycle Access and Safety

Beekman St:

- ***In the northbound (uphill) direction, install a buffered bike lane from Red Flynn Dr to Ferry St, a conventional bike lane from Ferry St to River St, and a parking-protected bike lane from River St to 9D.** Reduce the travel lanes to 10 feet to allow room for five-foot bike lanes and three-foot buffers (where feasible).

- Mark sharrows in the southbound (downhill) lane.

West Main St:

- Mark sharrows in both directions between Beekman St and the MTA property line.

Municipal Plaza:

- ***Construct a bicycle path connecting Main St and Beekman St, outside of the parking area.**

Route 9D (these improvements would need to be approved by and coordinated with NYSDOT):

- Mark sharrows between Main St and Beekman St.

- Upgrade the traffic signal detectors at the 9D/Main St and 9D/Beekman St intersections to consistently detect bicycles. This may entail adjusting the detectors' sensitivity, or replacing the loops with a more bicycle-friendly design (such as diagonal quadrupole loops) or technology (such as video detection).[7] If loop detectors are used, paint bicycle symbols and install signs on each approach to show bicyclists where to position themselves to be detected.[8] Note that NYSDOT has not yet approved video detection and would have to review any other detection technology prior to installation.

[7] See Walk Bike Dutchess, Chapter 3, part L for more detail on signal timing for bicyclists.
[8] See MUTCD Sections 9C.05 and 9B.13 and Figures 9C-7 and 9B-2 (sign R10-22).

- Adjust the signal timing at the 9D/Main St and 9D/Beekman St intersections to allow sufficient minimum green time, a longer green extension time for bicycles (if possible) and more all-red clearance time if needed.

Railroad Dr:

- Work with MTA to mark sharrows in the downhill direction from Beekman St to the train station, and to provide a bike lane in the uphill direction to Beekman St.

- Work with MTA to mark sharrows in the southbound direction from West Main St to the train station.

- Longer-term, work with MTA to reconfigure Railroad Dr to allow two-way bicycle access between the main station entrance and West Main St.

Red Flynn Dr:

- Mark sharrows in the downhill direction from Beekman St to the train station entrance (river side), and provide a bike lane in the uphill direction from the station to Beekman St.

Provide Bike Route Signage:

- Install bike route guide signs to direct bicyclists to preferred routes between the train station and Main St.[9]

Improve Bicycle Parking: [10]

- ***Work with MTA to provide secure long-term bike parking,** such as a bicycle enclosure or a Bike Station, in the station area.[11] We recommend long-term parking for at least 70-100 bicycles.

- ***Work with MTA to provide significantly more short-term bike parking**, such as covered bike racks, at both entrances to the station and by the overpass.[12] We recommend short-term spaces for at least 30-50 bicycles.

- Work with other property owners, including the City, to provide short-term bike parking at key destinations (e.g. the farmers market, parks, and commercial buildings), as well as long-term bike parking for employees, commuters, and visitors.

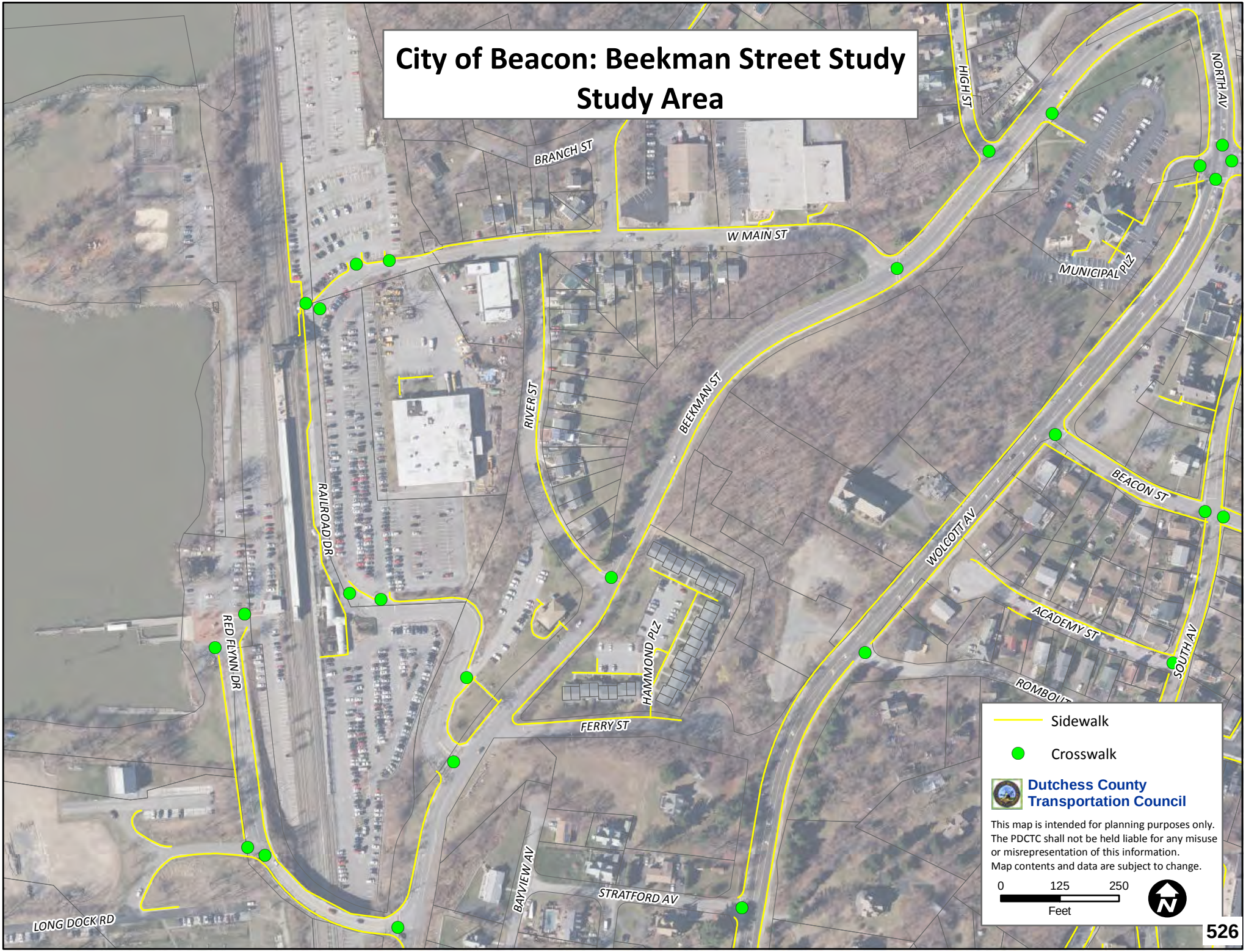
[9] See Bike Route Guide signs in MUTCD Section 9B.20, Figures 9B-4 and 9B-6

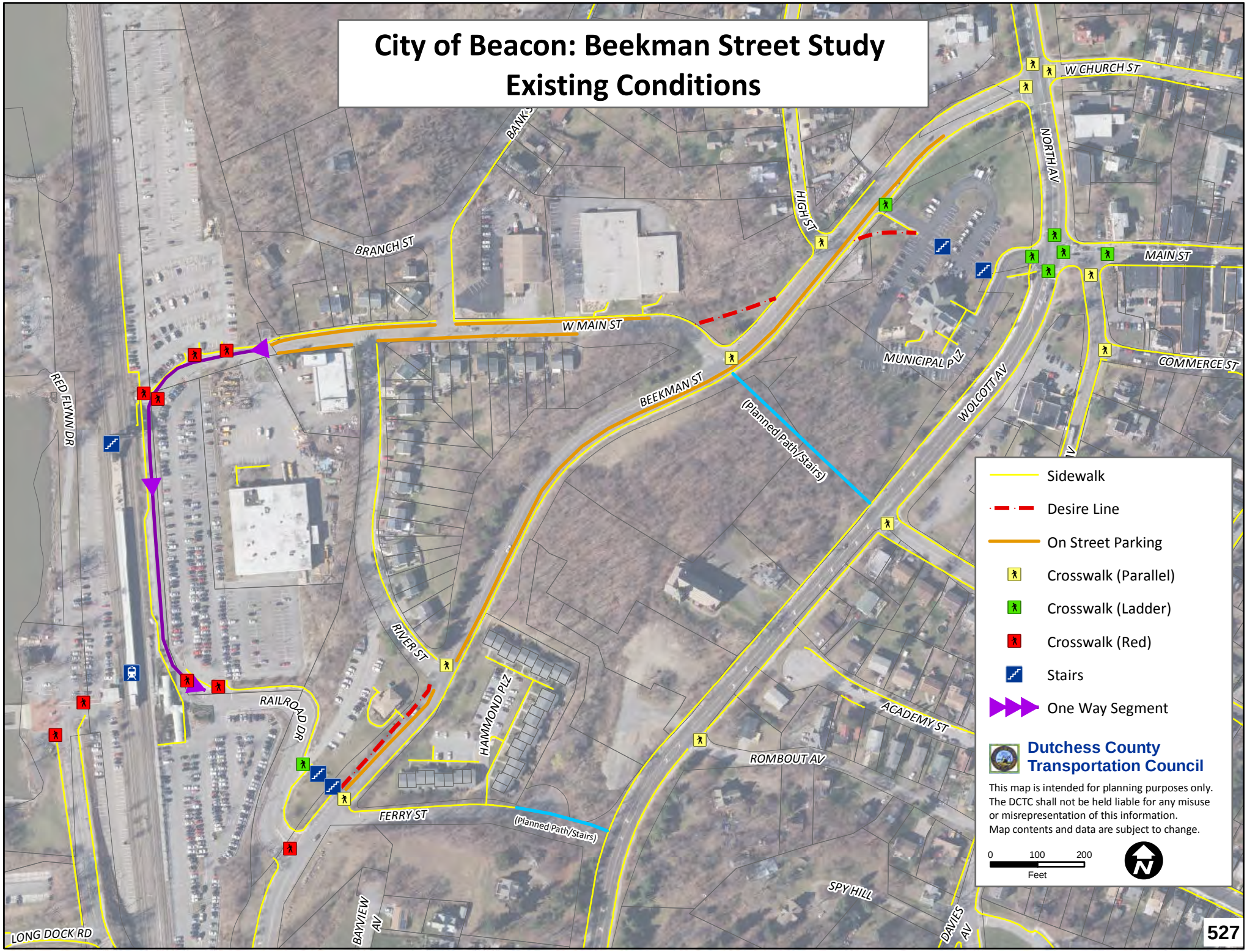
[10] Bicycle parking guidance is available online at http://www.co.dutchess.ny.us/CountyGov/Departments/TransportationCouncil/17205.htm.

[11] For images of Bicycle Enclosures, see Google images. For Bike Stations, see http://bikehub.com/caltrain-bike-station/ and http://home.bikestation.com/.

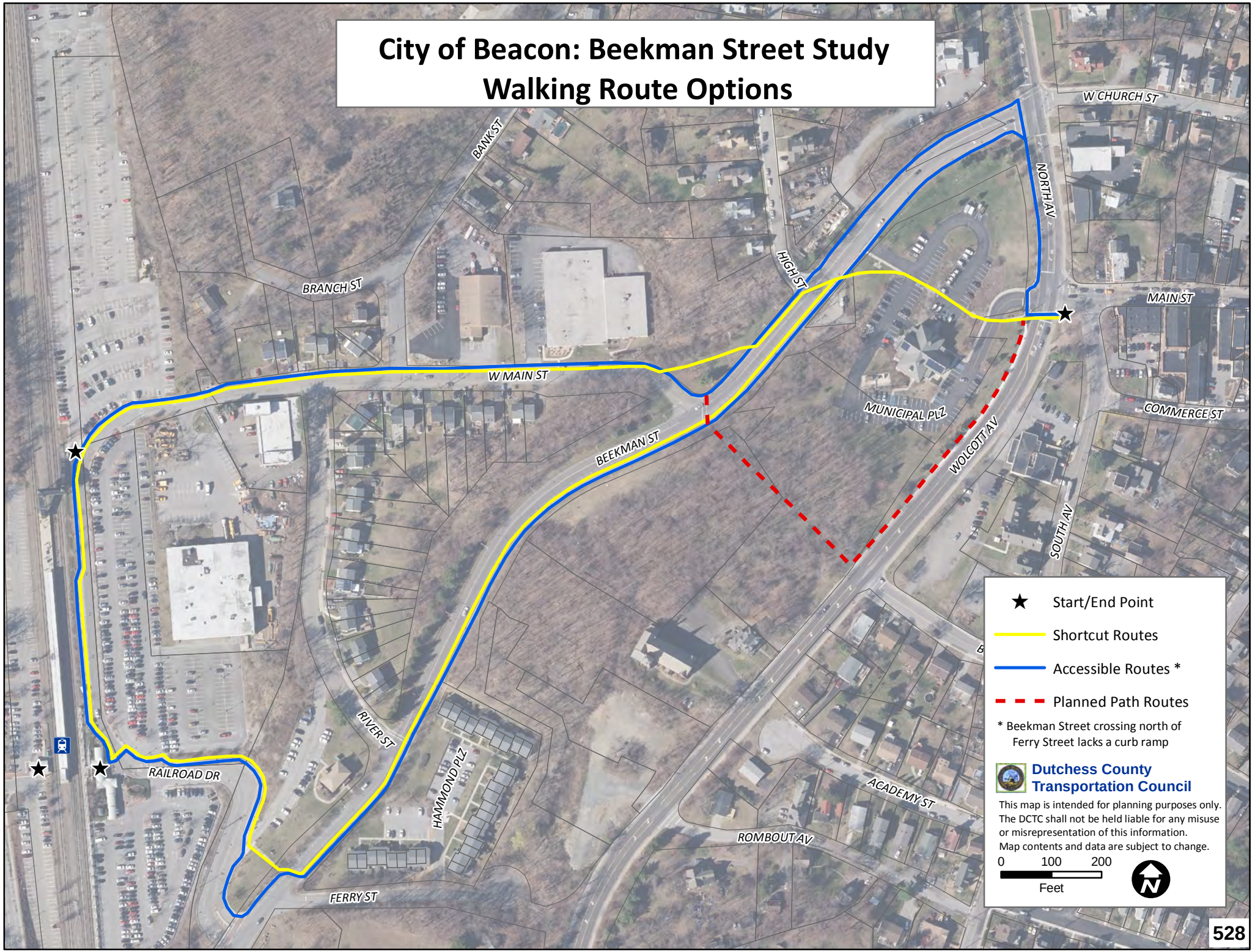
[12] See the County's online Bicycle Parking Finder for a current inventory of bike parking: https://geoaccess.co.dutchess.ny.us/bicycleparking/

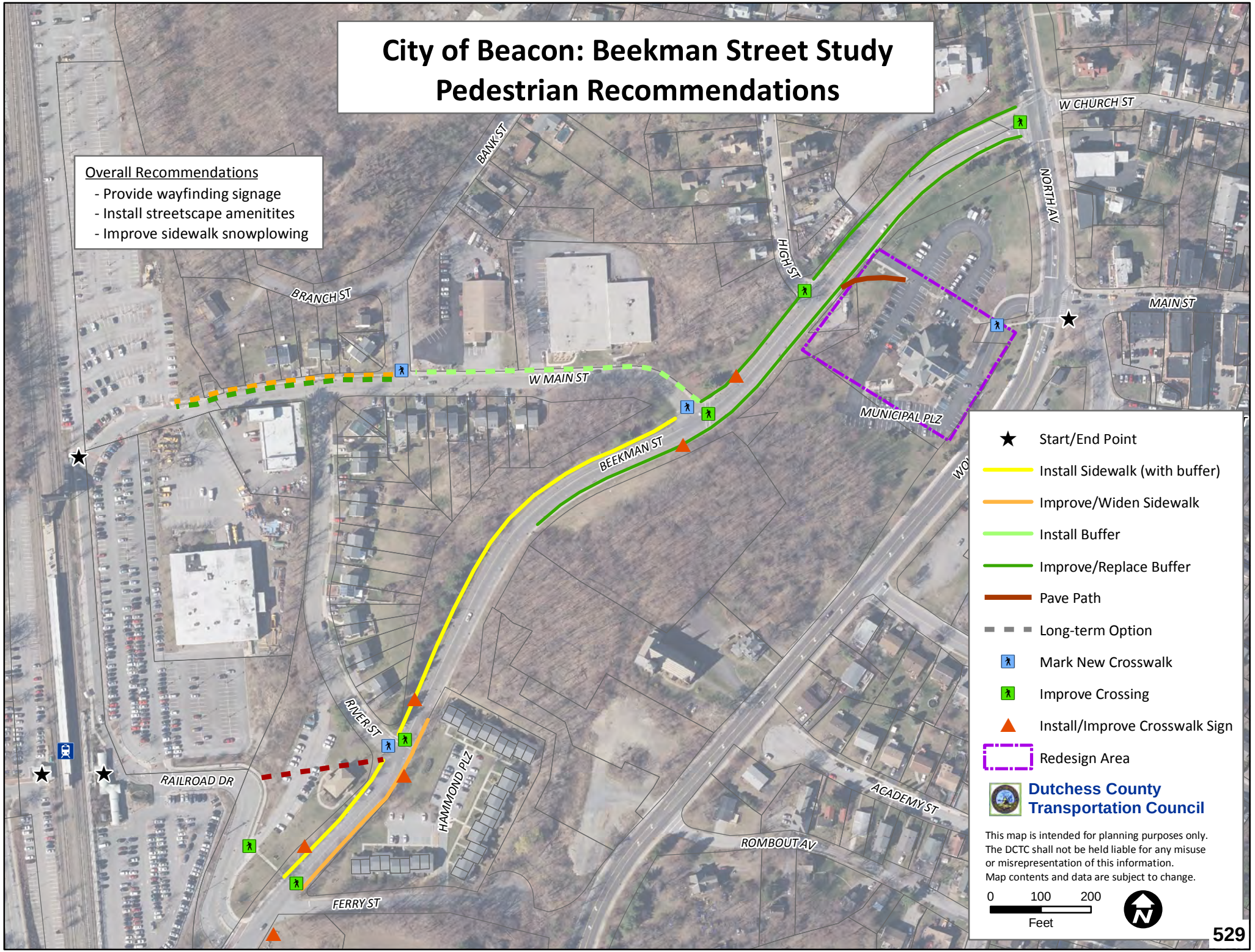
City of Beacon: Beekman Street Study
Study Area



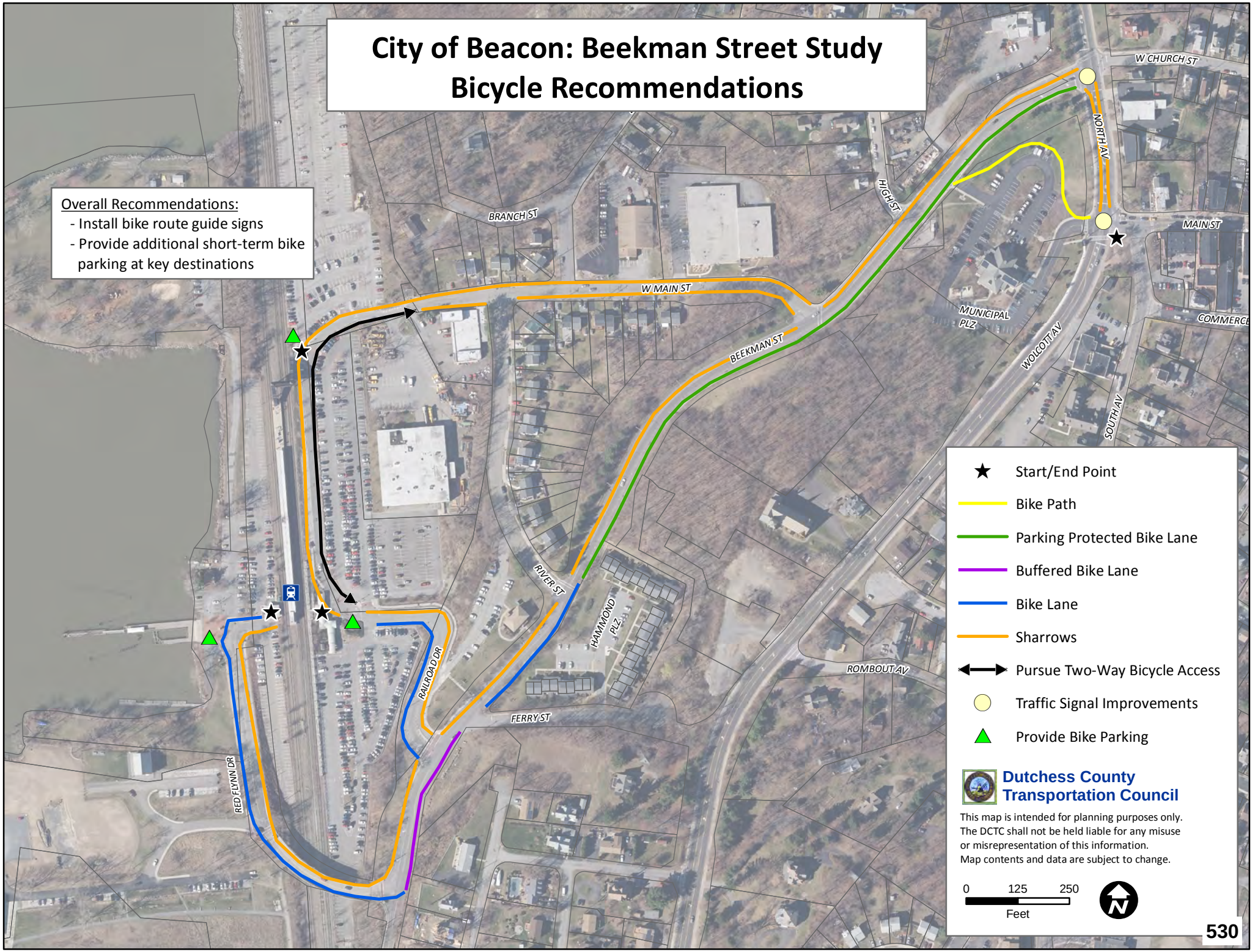

City of Beacon: Beekman Street Study
Existing Conditions
W CHURCH ST
NORTH AV
HIGH ST
BANK
BRANCH ST
W MAIN ST
MAIN ST
COMMERCE ST
MUNICIPAL PLZ
WOLCOTT AV
BEEKMAN ST
(Planned Path/Stairs)
RED FLYNN DR
RIVER ST
RAILROAD DR
HAMMOND PLZ
ACADEMY ST
ROMBOUT AV
FERRY ST
(Planned Path/Stairs)
SPY HILL
DAVIES AV
BAYVIEW AV
LONG DOCK RD
Sidewalk
Desire Line
On Street Parking
Crosswalk (Parallel)
Crosswalk (Ladder)
Crosswalk (Red)
Stairs
One Way Segment
Dutchess County Transportation Council
This map is intended for planning purposes only.
The DCTC shall not be held liable for any misuse or misrepresentation of this information.
Map contents and data are subject to change.
0 100 200
Feet
N
527

City of Beacon: Beekman Street Study
Walking Route Options

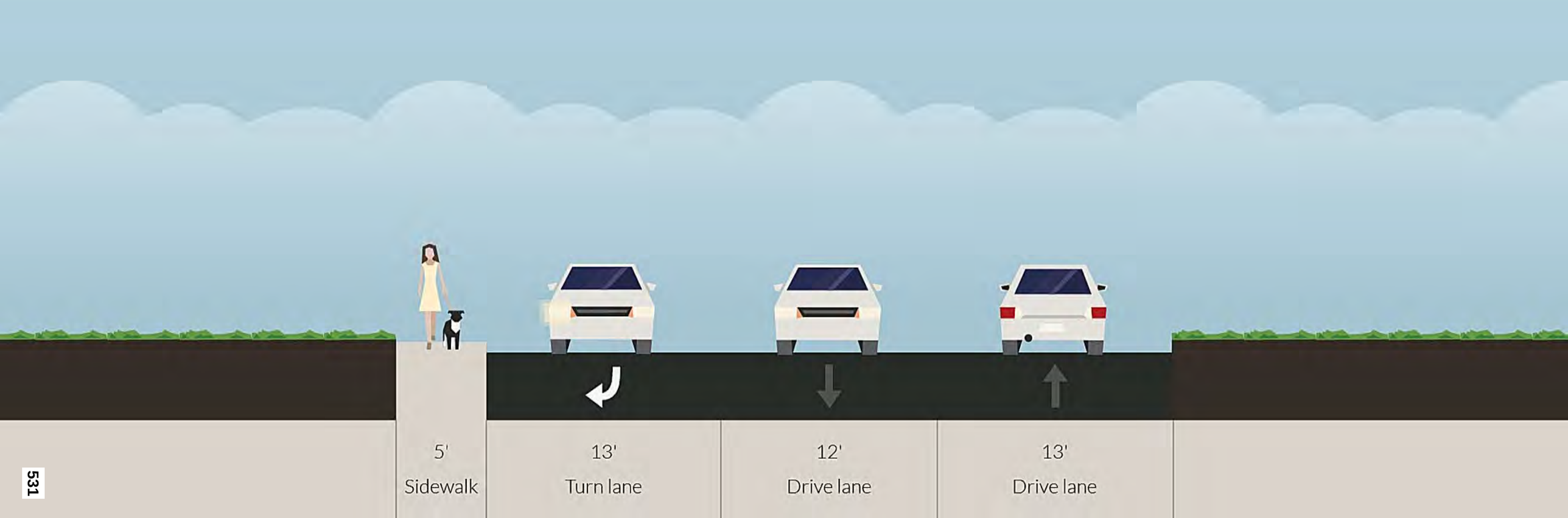



City of Beacon: Beekman Street Study
Pedestrian Recommendations
Overall Recommendations
- Provide wayfinding signage
- Install streetscape amenitites
- Improve sidewalk snowplowing
BANK ST
W CHURCH ST
NORTH AV
HIGH ST
BRANCH ST
MAIN ST
W MAIN ST
MUNICIPAL PLZ
BEEKMAN ST
RIVER ST
HAMMOND PLZ
RAILROAD DR
ACADEMY ST
ROMBOUT AV
FERRY ST
Start/End Point
Install Sidewalk (with buffer)
Improve/Widen Sidewalk
Install Buffer
Improve/Replace Buffer
Pave Path
Long-term Option
Mark New Crosswalk
Improve Crossing
Install/Improve Crosswalk Sign
Redesign Area
Dutchess County Transportation Council
This map is intended for planning purposes only.
The DCTC shall not be held liable for any misuse or misrepresentation of this information.
Map contents and data are subject to change.
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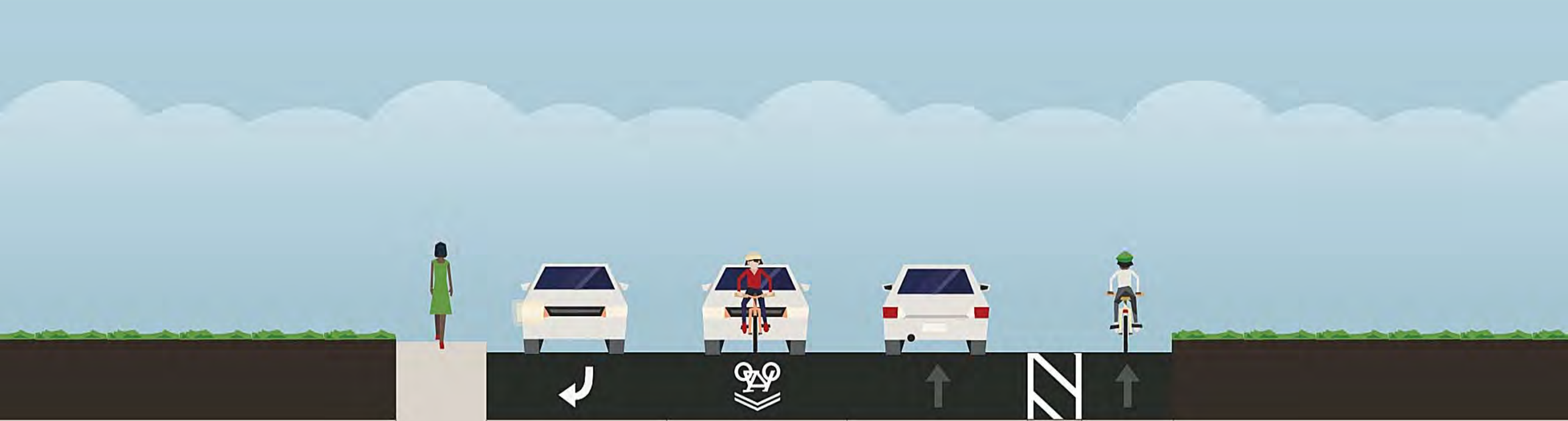
City of Beacon: Beekman Street Study
Bicycle Recommendations



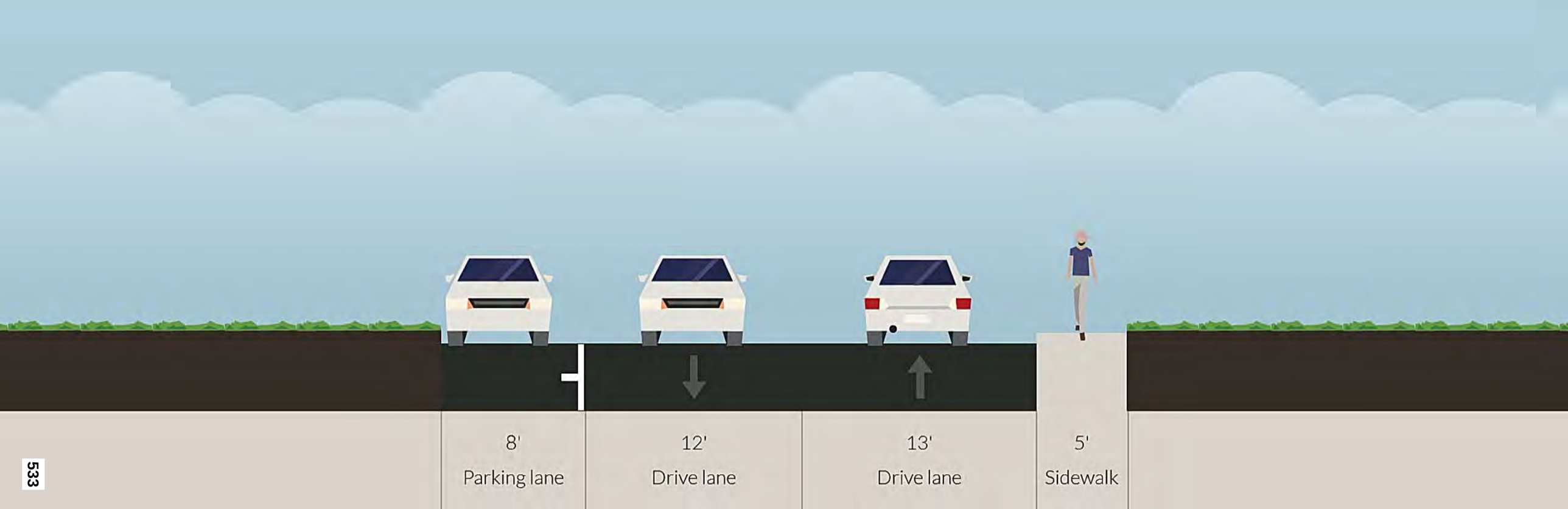
Beekman St: Red Flynn–Ferry (existing)



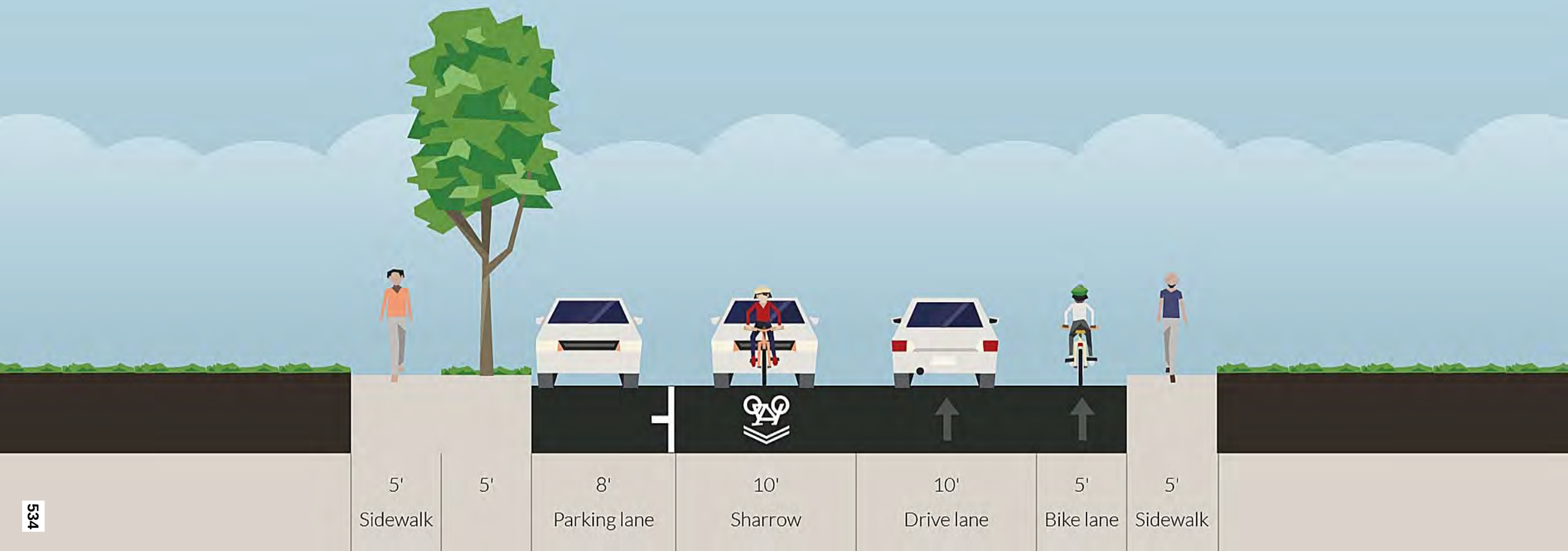
Beekman St: Red Flynn–Ferry (proposed)



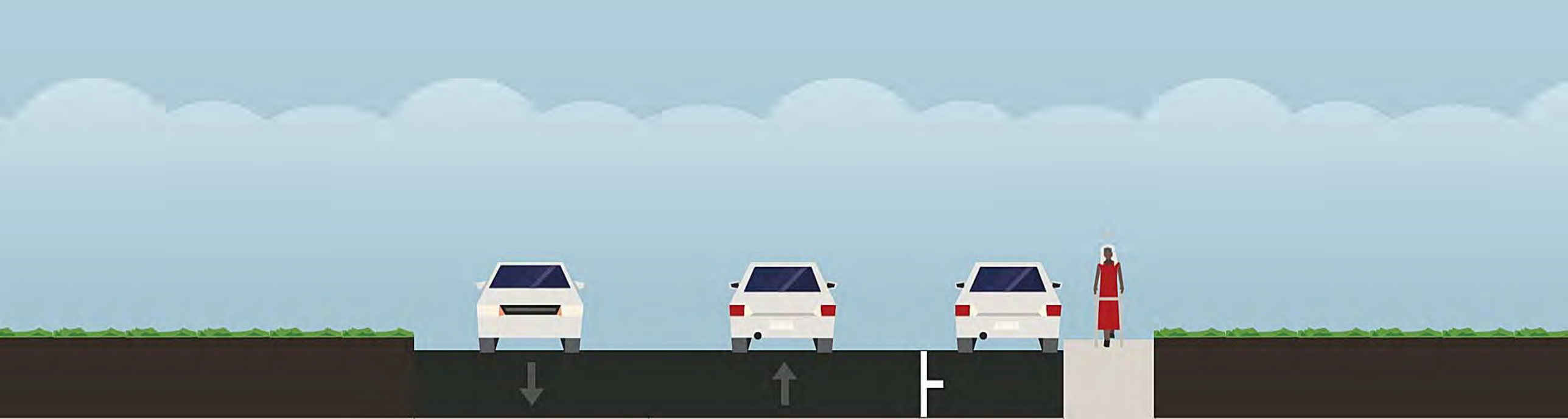
Beekman St: Ferry – River (existing)



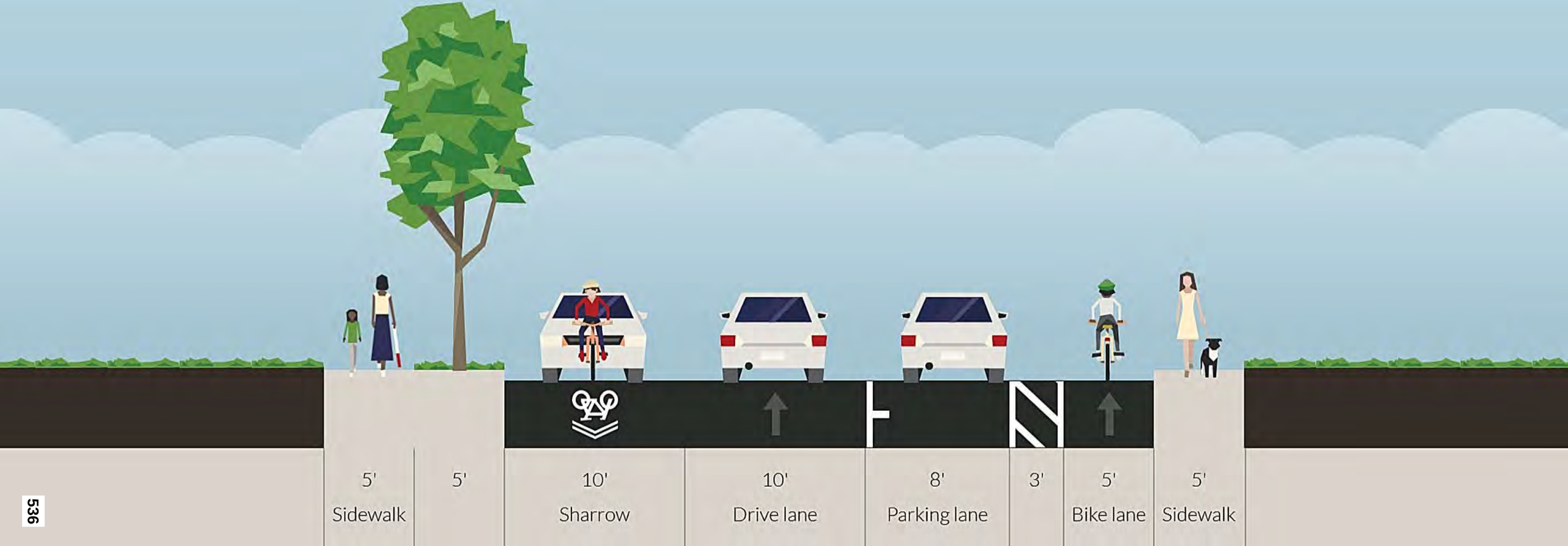
Beekman St: Ferry – River (proposed)



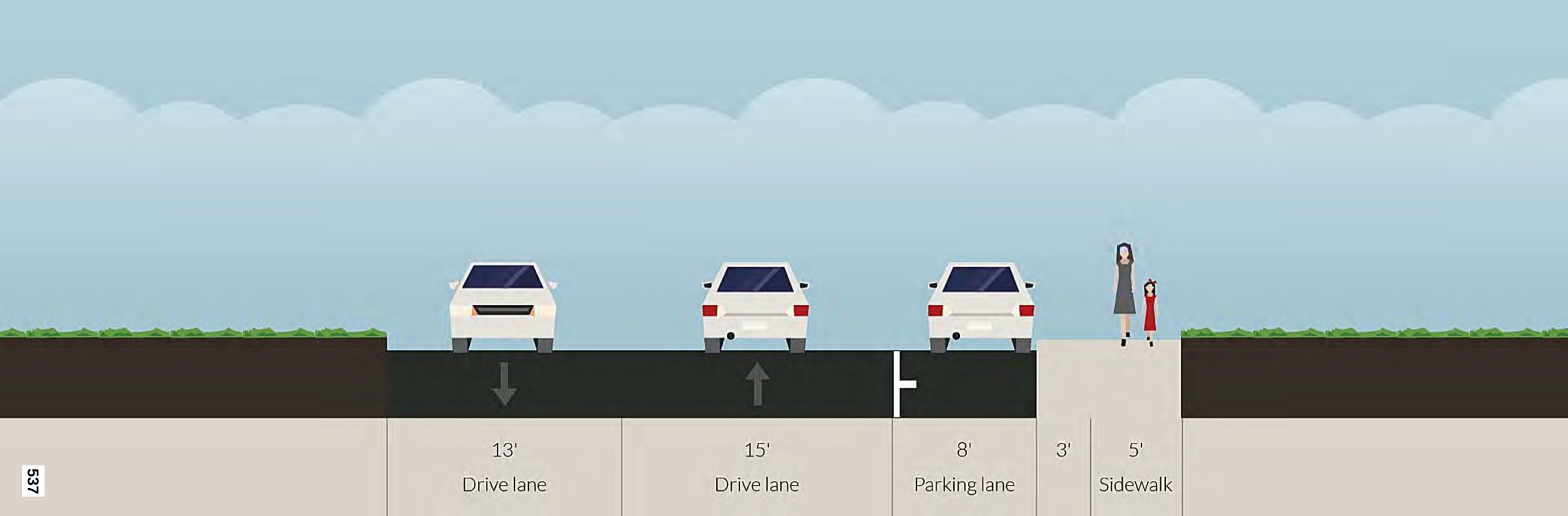
Beekman St: River–W Main (existing)



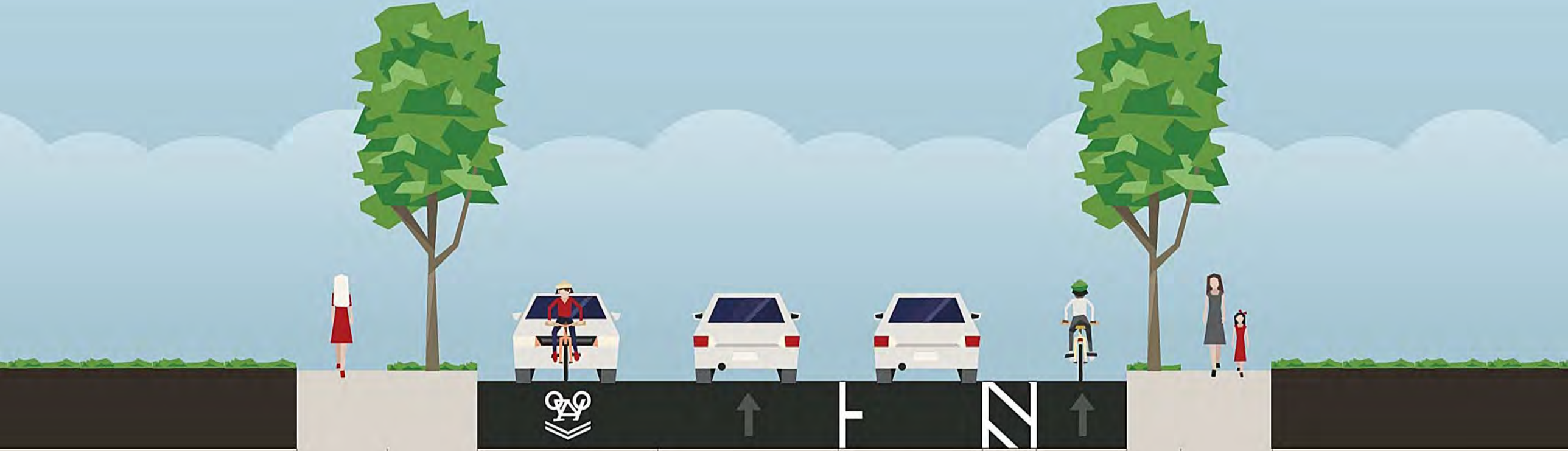
Beekman St: River–W Main (proposed)



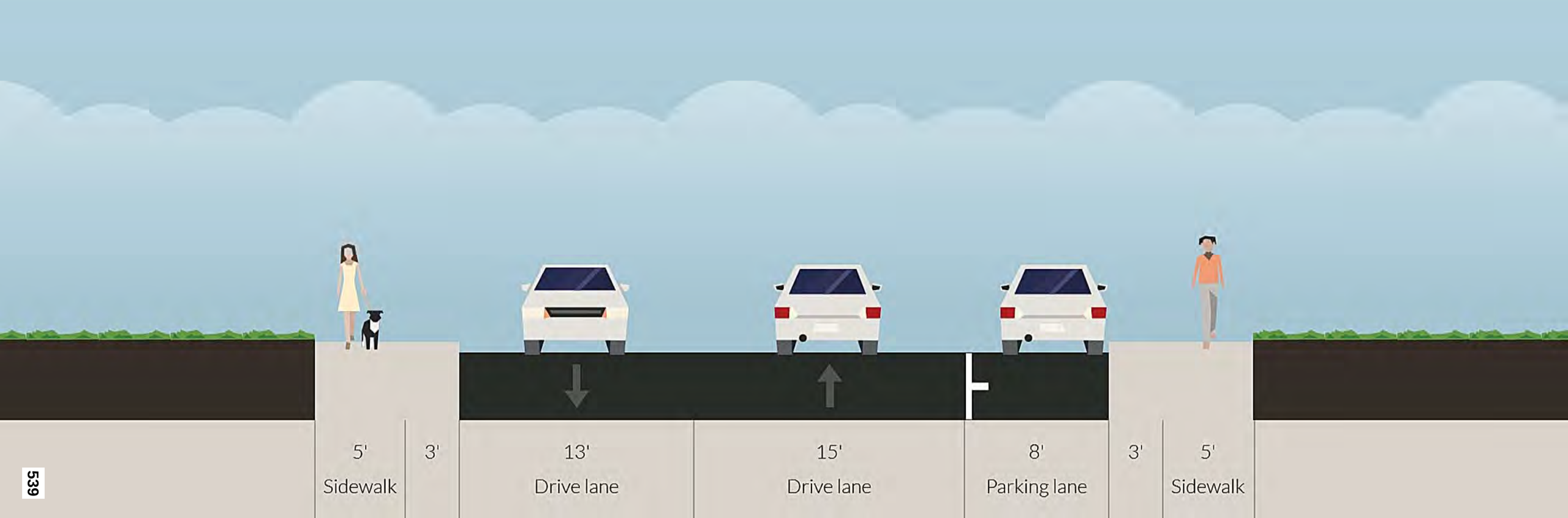
Beekman St: south of W Main St (existing)



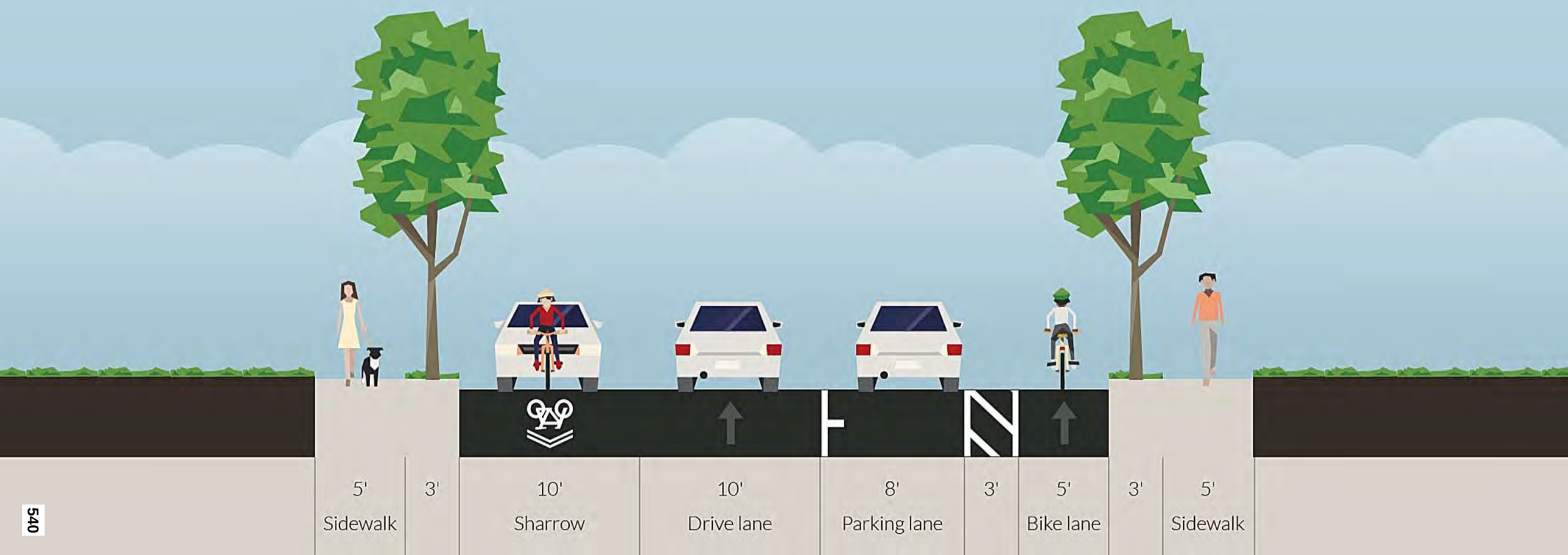
Beekman St: south of W Main St (proposed)



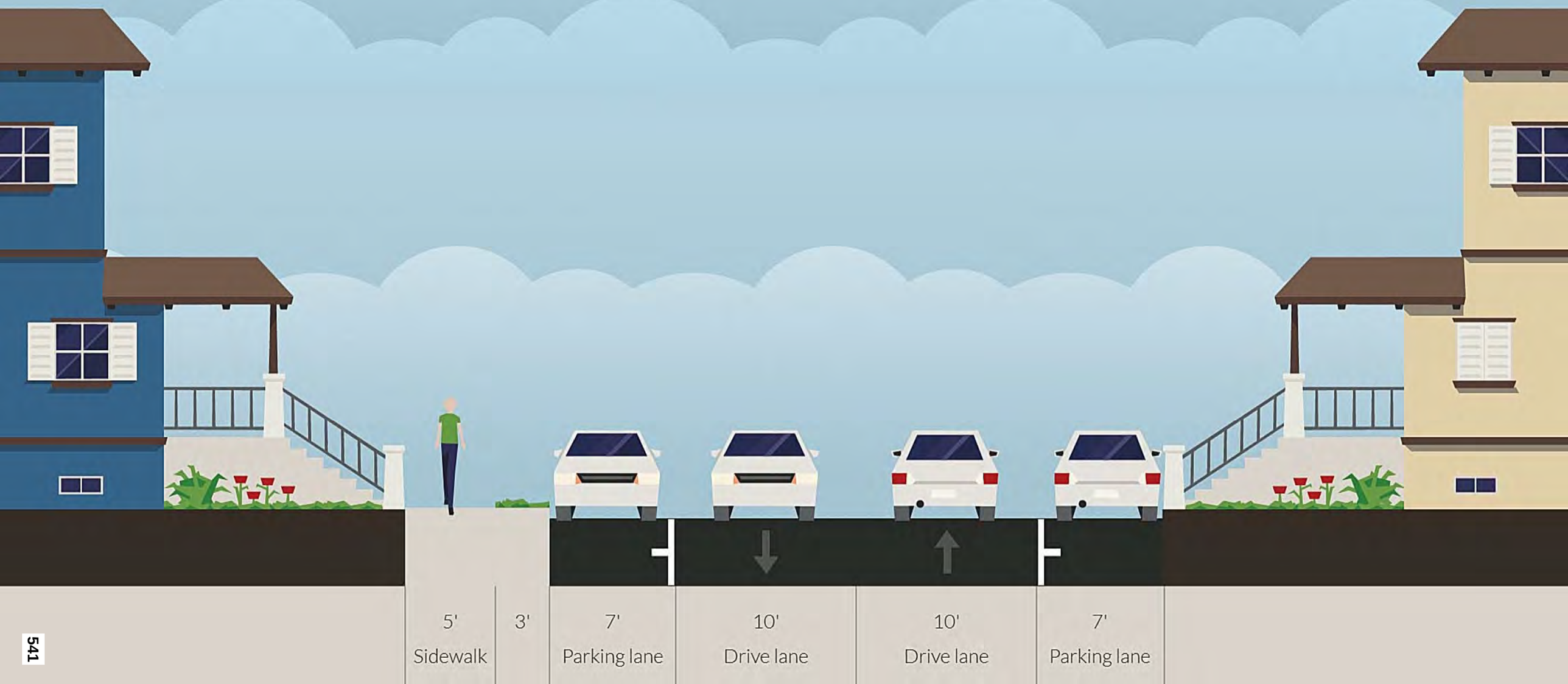
Beekman St: West Main St – 9D (existing)



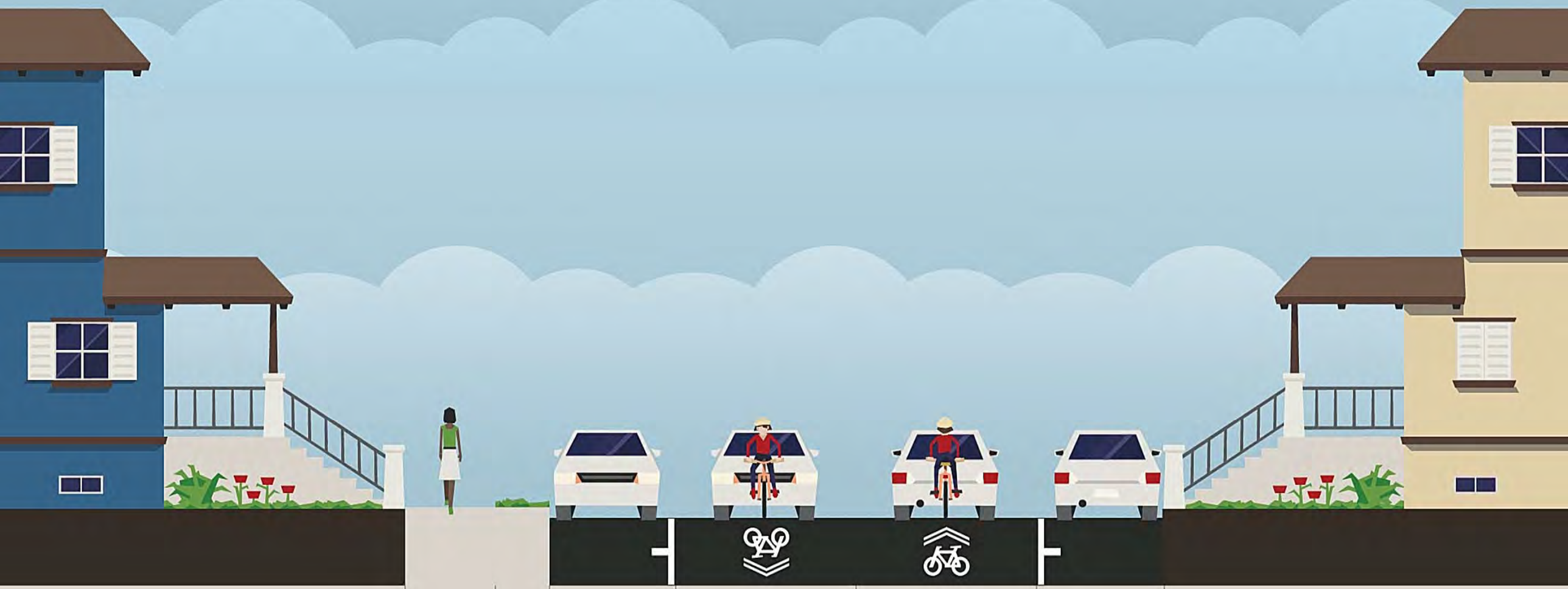
Beekman St: West Main St – 9D (proposed)



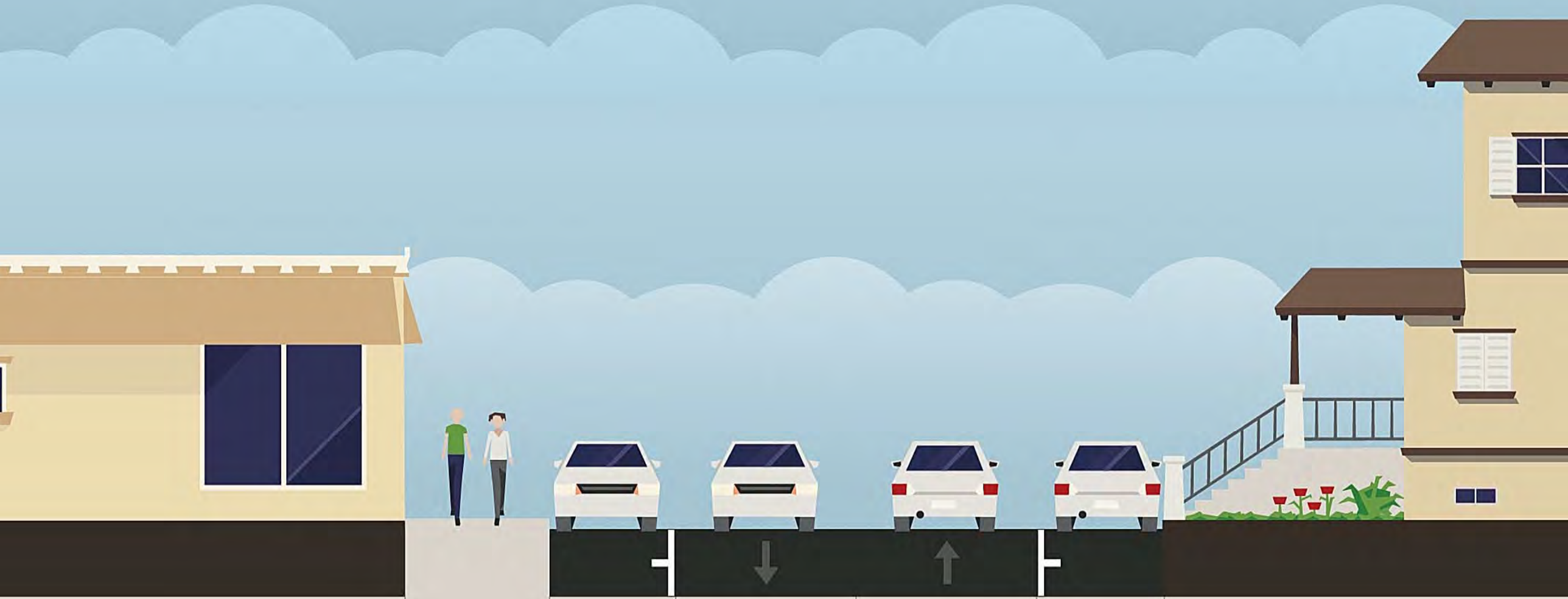
W Main St: west of Bank St (existing)



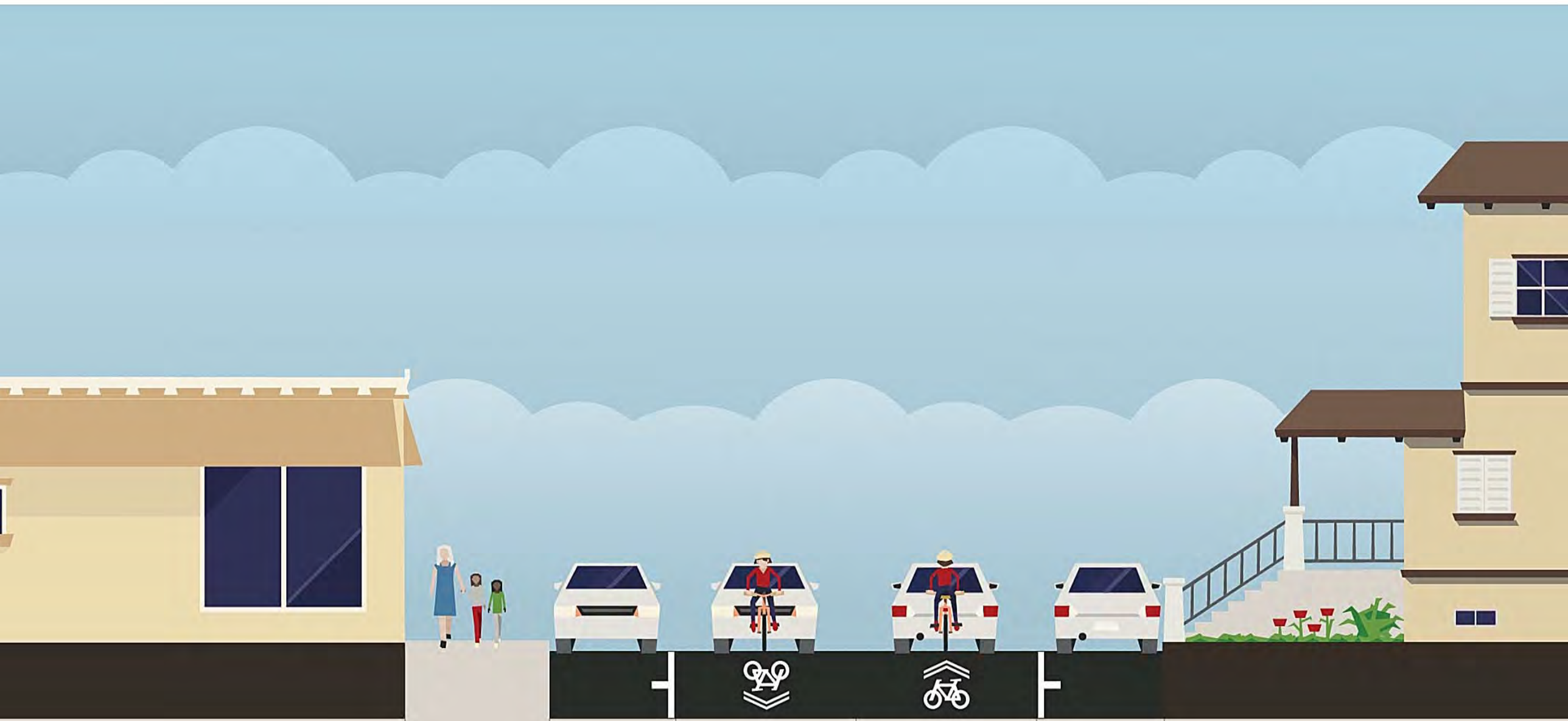
W Main St: west of Bank St (proposed)



W Main St: east of Bank St (existing)



W Main St: east of Bank St (proposed)



Colliers Engineering & Design

Traffic & Parking Study

Appendix F | Parking Data

§ 223-41.21. Regulations.

A. Uses by right. Uses listed below in this Subsection A are permitted by right subject to site plan review, except as otherwise noted in this § 223-41.21. Site plan review shall not be required for a change of use in an existing building where the new use is allowed by right, the building will not be expanded, and the minimum number of off-street parking spaces required for the new use in § 223-41.21F(2) is not more than 25% greater than the requirement for the existing use in § 223-26F herein. The following uses are allowed by right subject to a requirement that for any new construction of a principal building, an apartment use or attached, semidetached, or multifamily dwelling unit shall only be located on the upper stories or at least 50 feet behind the facade in the rear portion of the ground floor, if the building faces the north side of Beekman Street between Route 9D and West Main Street, faces the north side of West Main Street, or if the parcel is within 400 feet of the Route 9D-Beekman Street intersection, as identified on the Zoning Map: **[Amended 8-19-2013 by L.L. No. 14-2013; 7-21-2014 by L.L. No. 11-2014; 6-15-2020 by L.L. No. 7-2020; 2-16-2021 by L.L. No. 02-2021]**

(1) Multifamily dwelling.

(2) Attached or semidetached dwelling units.

(3) Apartment building.

(4) Inn.

(5) Bed-and-breakfast establishment.

(6) Artist studio, art gallery or exhibit space.

(7) Hotel.

(8) Park, plaza, green, preserve or community garden.

(9) Retail, personal services business, bank, or restaurant, coffee house, bar, brew pub or other establishment that serves food, with or without alcoholic beverages, provided that:

(a) The floor area of each such establishment is not greater than 5,000 square feet;

(b) The parcel is within 400 feet of the Route 9D-Beekman Street intersection, located along the north side of Beekman Street between Route 9D and West Main Street, or located along the north side of West Main Street, as identified on the Zoning Map.

(10) Office, trade school, training program, microbrewery or microdistillery, provided that:

(a) The total floor area of each such establishment is no greater than 25,000 square feet;

(b) The parcel is within 400 feet of the Route 9D-Beekman Street intersection, located along the north side of Beekman Street between Route 9D and West Main Street, or located along the north side of West Main Street, as identified on the Zoning Map.

(11) Government facility, including buildings, structures and uses owned or operated by the City of Beacon or any department or agency thereof.

(12) Day-care center.

(13) Museum, theater, concert, or conference space.

:1

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(14) College, university, private school, or nursery school.

(15) Workshop.

(16) Artist live/work space, provided that, if the use faces the north side of Beekman Street between Route 9D and West Main Street, faces the north side of West Main Street, or if the parcel is within 400 feet of the Route 9D-Beekman Street intersection, the residential space shall only be located on the upper stories or at least 50 feet behind the facade in the rear portion of the ground floor, unless the first 50 feet behind the facade is used for the retail sale of the artist's wares.

(17) Spa, fitness center, or exercise studio.

(18) Wireless telecommunication services facilities, subject to § 223-26.4.

B. Uses by special permit. **[Amended 7-21-2014 by L.L. No. 11-2014; 4-3-2017 by L.L. No. 5-2017; 1-16-2018 by L.L. No. 1-2018; 10-15-2018 by L.L. No. 17-2018; 6-15-2020 by L.L. No. 7-2020]**

(1) The following uses are allowed in existing buildings as permitted uses. For newly constructed buildings, the following uses are allowed by special permit from the Planning Board, upon a finding that the proposed use is consistent with the City of Beacon Comprehensive Plan, will enhance the architectural character of the street, and will contribute to creating a more urban, pedestrian-friendly quality in the L District, and that the conditions and standards in § 223-18B(1)(a) through (f) have been met: **[Amended 2-16-2021 by L.L. No. 02-2021]**

(a) Manufacturing use or food preparation business that may also sell goods made on the site for consumption off the premises, provided that:

[1] The total manufacturing or food preparation business floor area of the building is no greater than 25,000 square feet;

[2] The parcel is within 400 feet of the Route 9D-Beekman Street intersection, located along the north side of Beekman Street between Route 9D and West Main Street, or located along the north side of West Main Street, as identified on the Zoning Map; and

[3] The Planning Board finds that there are no substantial detrimental effects on parking, traffic or on the character of surrounding neighborhoods or the community.

(b) Historic District and Landmark Overlay use, subject to § 23-24.7.

(2) In considering the appropriateness of the proposed use, the Planning Board shall consider impacts on shadows, traffic, and parking and may impose traffic and parking mitigation measures, including but not limited to provision of pedestrian walkways and stairways on-site.

B.1. Accessory uses. The following are permitted accessory uses in the L District: **[Added 7-21-2014 by L.L. No. 11-2014]**

(1) Any accessory building or use customarily incident to a permitted use, except outside storage.

(2) Signs, in accordance with the provisions of § 223-15, as applicable.

(3) Off-street parking areas, in accordance with § 223-41.21F.

(4) Exterior lighting, in accordance with the provisions of § 223-41.21K(12) and § 223-14B. **[Amended 6-15-2020 by L.L. No. 7-2020]**

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(5) Parking structure. **[Added 6-15-2020 by L.L. No. 7-2020[1]]**

(6) Roof garden or solar collector, site plan review not required.

(7) Greenhouse.

(8) Short-term rentals in any dwelling unit, or room(s) therein, located in a one-family home, two-family home, accessory apartment, or multifamily dwelling, as provided in § 223-26.5. **[Added 6-15-2020 by L.L. No. 6-2020[2]]**

C. Prohibited uses. Uses not listed in Subsection A or B above and the following specific uses are prohibited in the L District:

(1) Gasoline filling station.

(2) Drive-through facilities, stand-alone or used in connection with any other use.

D. Dimensional regulations. All new construction or enlargement of existing structures in the L District shall be subject to the following minimum and maximum dimensional regulations:

(1) Front setback: minimum zero, maximum 20 feet, except that a larger maximum may be allowed if a) surrounding buildings have a larger setback, in which case the setback line may be placed in a location that harmonizes with the prevailing setbacks, provided that there is no parking in the front yard other than on a driveway accessing a rear garage; and b) the area in front of a building has no parking spaces and is landscaped and used in a manner that enhances the street life by such means as pocket parks, gardens, fountains, outdoor tables, public art, and outdoor display of items for sale on the premises. At least 30% of any such outdoor space shall be landscaped with plant materials in a configuration approved by the Planning Board.

(2) Corner buildings: Corner buildings shall be treated as having frontage on both streets and front setbacks shall apply to both, as appropriate to the street.

(3) Side setbacks: minimum of zero, maximum of 30 feet. The minimum side setback may be increased by the Planning Board to allow light and air to continue to penetrate an existing building that has side windows.

(4) Rear setbacks: minimum 25 feet, except that if the rear yard is voluntarily dedicated to the City of Beacon as all or part of a public parking lot or parking structure, the minimum setback shall be 10 feet with landscaping to screen adjacent uses.

(5) Building height: minimum two stories, average maximum four stories and 48 feet, as determined from the average street front level. Stories built below the grade of the street front shall not be counted toward building height. The second story of a two-story building shall be built in a manner that allows actual occupancy for one or more permitted uses and does not create the mere appearance of a second story. For any building over three stories, a stepback of at least 15 feet behind the facade shall be required above the third story. Chimneys, vent pipes, mechanical systems, elevator shafts, antennas, wireless communications facilities, roof gardens and fences, greenhouses, solar collectors, wind energy systems, and other rooftop accessory

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1. **Editor's Note: This local law also repealed former Subsection B(5), which listed home occupation as a permitted accessory use.**

2. **Editor's Note: This local law provided the following: "This local law shall take effect on October 1, 2020. Any short-term rental, as defined herein, in existence prior to October 1, 2020 shall have until November 15, 2020, to file an application to obtain a short-term rental permit. Any short-term rental existing prior to October 1, 2020 that (a) does not meet the definition of short-term rental or (b) is a short-term rental, as defined, and does not file an application by November 15, 2020 shall be deemed to be in violation of this local law and subject to enforcement."**

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structures may project up to 15 feet above the maximum height. With the exception of roof gardens and solar collectors, such projections may occupy no more than 20% of the roof area and must be set back at least 15 feet from the front edge of the roof. **[Amended 4-3-2017 by L.L. No. 5-2017]**

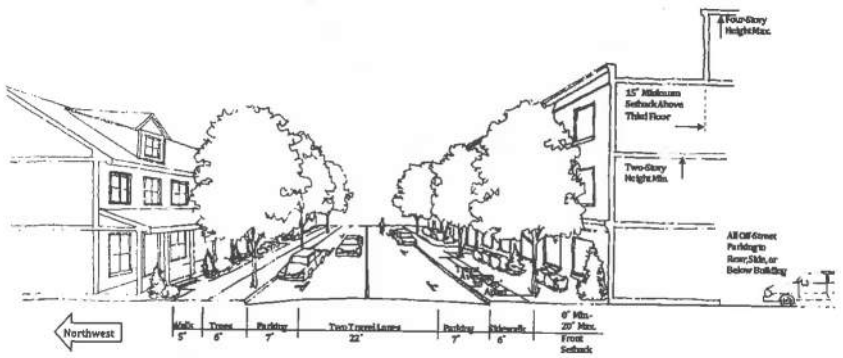
(6) Lot area and lot width: There are no minimum lot area or lot width requirements.

(7) Lot depth: Minimum lot depth is 75 feet, except that on any lot in which the area behind a building is voluntarily dedicated to the City as public parking, there shall be no minimum depth requirement.

(8) Floor area ratio: There is no maximum floor area ratio.

(9) Landscaped area: A minimum of 15% of the lot shall be landscaped with trees, shrubs, or grass, in locations approved by the Planning Board that enhance the streetscape or provide a landscaped interior courtyard and are found to be consistent with the intent of the L District. This requirement shall be reduced to 5% if the landscaped area is accessible to the public. These requirements may be waived for preexisting lots of 5,000 square feet or less.

Figure 21-0: Illustrative View of Proposed Linkage Zoning Requirements



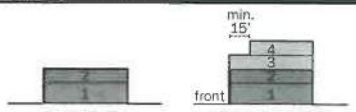
(10) Linkage Zone standards.

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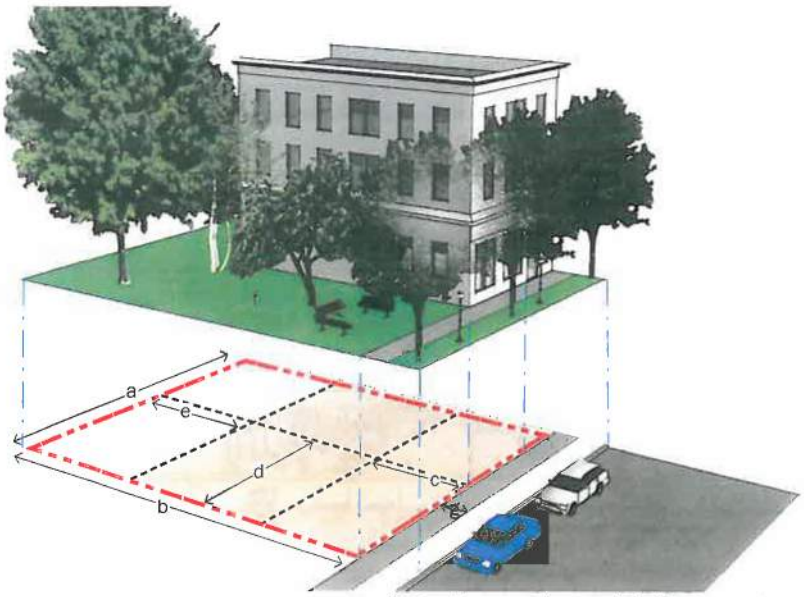
Figure 21-1: Linkage Zone Standards

LOT STANDARDS			
		Min.	Max.
	Lot Area	–	–
(a)	Lot Width	–	–
(b)	Lot Depth	75'	–
	F.A.R.	–	–
(c)	Front Setback	0'	20'
(d)	Side Setback	0'	30'
(e)	Rear Setback	25'	–
(f)	Landscaped Area	15%	–
	Frontage Occupancy	–	–
(g)	Pedestrian Clearway	5'	–

BUILDING HEIGHTS



FRONTAGE TYPES	
	Allowed
Storefront	within 400' of Rt. 9-D/Beekman St. intersection
Forecourt	yes
Stoop	yes
Porch	yes
Lightwell	yes



See text for exceptions and clarifications to Figure 21-1

E. Frontage types.

(1) The following building frontage types are permitted:

(a) Storefront, only at locations within 400 feet of the Route 9D-Beekman Street intersection.

(b) Forecourt.

(c) Stoop.

(d) Porch.

(e) Lightwell.

(2) Storefront: a frontage type where the building facade is placed at or close to the right-of-way line, with the entrance at sidewalk grade. This building frontage type is conventional for retail use. It is characterized by a high percentage of glazing on the first floor, a prominent entrance, and often an awning. Recessed doors on storefronts are acceptable.

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Figure 21-2: Illustrative View of Storefront Frontage Type

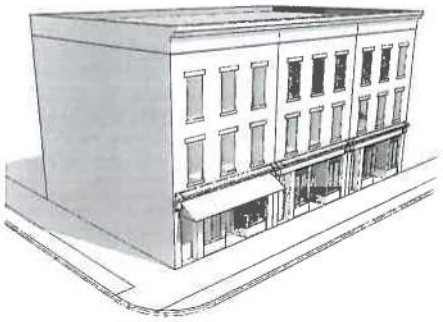


Figure 21-3: Section View of Storefront Frontage Type

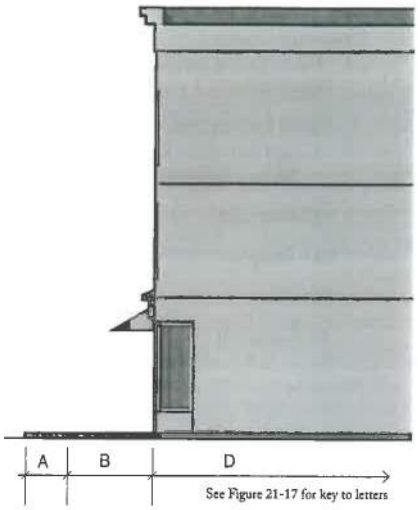
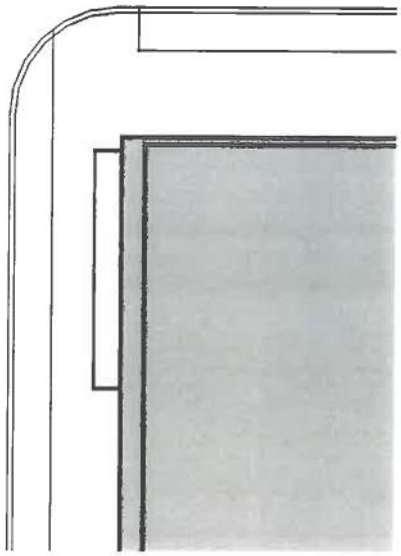


Figure 21-4: Plan View of Storefront Frontage Type



(3) Forecourt. A forecourt is a semi-public exterior space whose back and sides are surrounded by a building and whose front opens to a thoroughfare—forming a court. The court is suitable for gardens, gathering space, and outdoor dining.

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Figure 21-5: Illustrative View of Forecourt Frontage Type

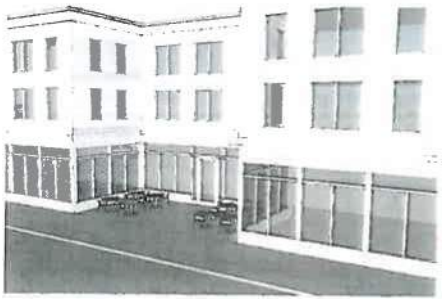
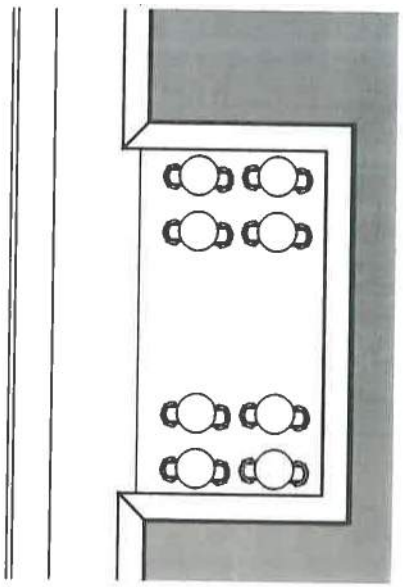


Figure 21-6: Section View of Forecourt Frontage Type



Figure 21-7: Plan View of Forecourt Frontage Type



(4) Stoop. In this frontage type, the building facade is aligned close to the frontage line. The first story is usually elevated sufficiently to provide some privacy for occupants. A stoop (composed of an elevated pad and stairs) lands at the edge of the sidewalk or a short front walkway. A small porch or roof may cover the stoop. This frontage type is suitable for ground-floor residential uses with short setbacks.

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Figure 21-8: Illustrative View of Stoop Frontage Type

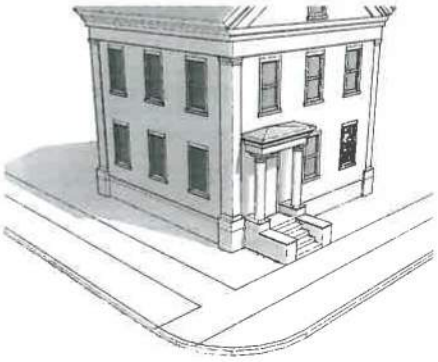


Figure 21-9: Section View of Stoop Frontage Type

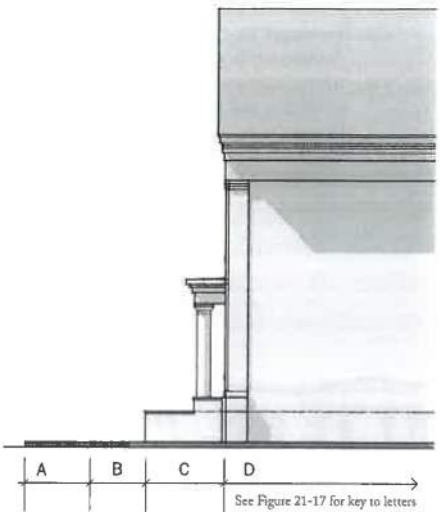
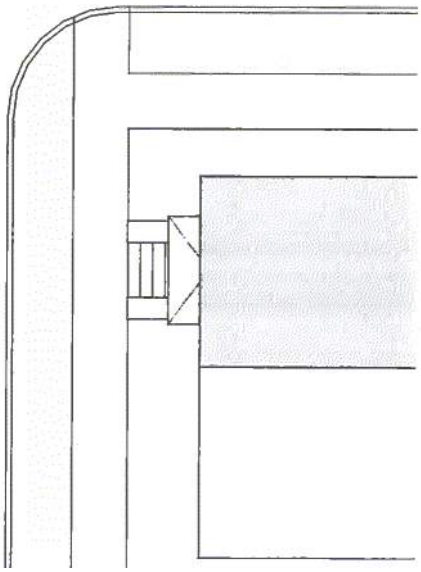


Figure 21-10: Plan View of Stoop Frontage Type



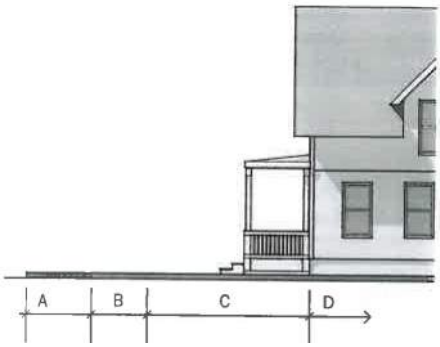
(5) Porch. A frontage type where the building facade is set back from the frontage line. The porch (a covered, but not enclosed, space) sits between the facade and the frontage line. The porch provides a transition from the public realm to the private realm. Porches are typically elevated above the surrounding grade. A porch should have a clear space that is a minimum of six feet deep and 10 feet wide.

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Figure 21-11: Illustrative View of Porch Frontage Type

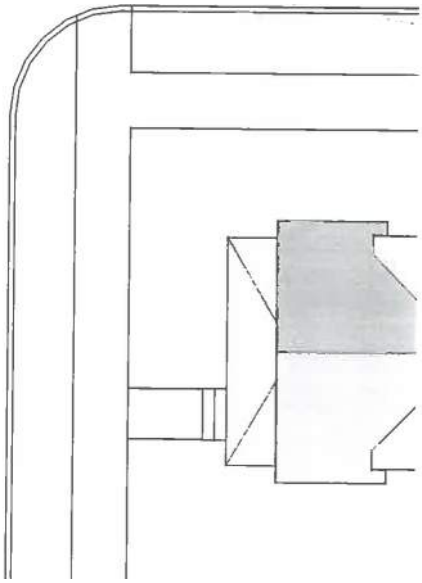


Figure 21-12: Section View of Porch Frontage Type



See Figure 21-17 for key to letters

Figure 21-13: Plan View of Porch Frontage Type



(6) Lightwell: a frontage type where the facade is set back from the frontage line. The ground floor of the building is elevated to allow light to enter the basement, which is typically occupied. Stairs lead up to the ground floor and down to a below-grade entrance and/or sunken court. The stairs typically land at the frontage line.

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Figure 21-14: Illustrative View of Lightwell Frontage Type

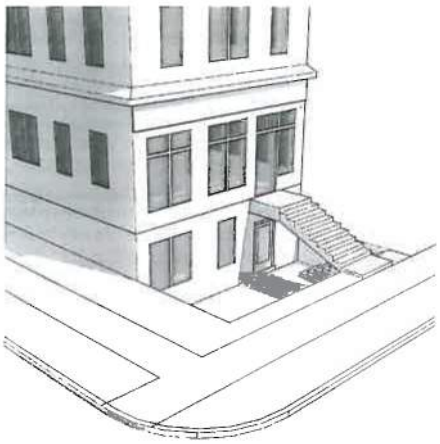
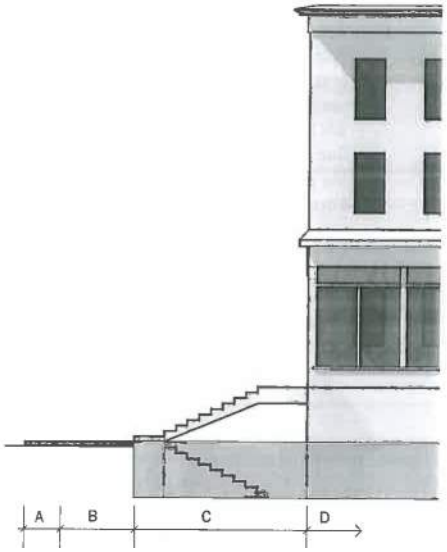
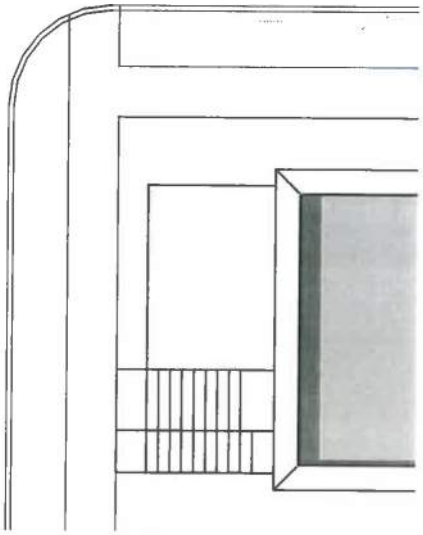


Figure 21-15: Section View of Lightwell Frontage Type



See Figure 21-17 for key to letters

Figure 21-16: Plan View of Lightwell Frontage Type



F. Parking location and quantity.

(1) All off-street parking shall be located behind, underneath, or to the side of a building. If on the side, it shall be located at least 40 feet from any property line that fronts on a street and be screened by a low brick or stone wall, hedge, ornamental fence, and/or other landscaping that maintains the continuity of the street and that screens parked cars from view from the street.

(2) The minimum quantity of required on-site parking spaces shall be as follows:

(a) Residential: one space per unit.

(b) Office and general commercial: 2.5 spaces per 1,000 square feet of floor area.

:10

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(c) Retail commercial and personal services: three spaces per 1,000 square feet of floor area.

(d) Other uses: as listed in § 223-26 of this chapter. **[Amended 4-3-2017 by L.L. No. 5-2017]**

(3) The quantity of required on-site parking in Subsection F(2) above may be modified by the Planning Board, in its discretion, based upon information submitted by the applicant or otherwise made available to the Planning Board in the public record, demonstrating one or more of the following:

(a) That the projected operational characteristics of the proposed use and/or its proximity within walking distance of the train station and other services justify a reduction in the required amount of parking.

(b) That adequate shared parking, contractually obligated for the duration of the proposed use, is available within 500 feet of the site and in the L District.

(c) That the applicant has provided sufficient bicycle parking to reduce anticipated vehicular travel demand, as supported by a professional parking study. **[Amended 4-3-2017 by L.L. No. 5-2017]**

(d) That there is sufficient public parking available within 800 feet of the site and in the L District to meet foreseeable parking needs of the proposed use and surrounding uses for the duration of the proposed use.

(e) That the applicant will voluntarily dedicate land for public parking on site or will acquire land by purchase or long-term lease (for the duration of the proposed use) within 800 feet of the site and in the L District and voluntarily dedicate such land to the City for public parking.

(f) That a professional parking study of the proposed use and the surrounding area demonstrates that a different amount of parking would be appropriate for the use in its particular location and/or that existing and/or proposed off-site parking is sufficient.

(4) For small preexisting lots where the provision of on-site parking is infeasible, the Planning Board may waive up to 50% of the parking requirements, provided that the total floor area of the building is no greater than 3,000 square feet. The Planning Board may grant additional parking waivers, at its discretion, subject to an in-lieu payment of $10,000 per parking space. **[Amended 4-3-2017 by L.L. No. 5-2017]**

(5) Section 223-26B of this chapter shall not apply in the L District.

G. Streetscape improvements.

(1) On West Main Street, Beekman Street, and Wolcott Avenue, within the building transition zone, the Planning Board may require the lot owner to provide planters, trees, shrubs, or other landscaping to enhance the appearance of the streetscape. Ornamental fencing four feet or less in height may be provided to separate privately owned space from public space. Chain link, vinyl, and solid fencing shall be prohibited. For commercial uses, display areas, and outdoor dining and seating areas may be provided.

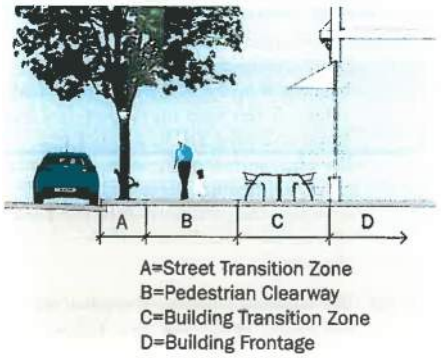
(2) A pedestrian clearway, at least five feet wide, with unobstructed space for pedestrian activity, shall be provided along the sidewalk, unless site conditions require a narrower clearway. A pedestrian clearway of eight feet shall be provided along storefront frontages.

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(3) Within the street transition zone, if space permits, lot owners may plant trees and place benches, tables, and outdoor seating areas with the approval of the Department of Public Works. The Planning Board may require the planting of street trees on average 30 feet to 40 feet apart as a condition of site plan approval. To the extent practical, an applicant shall, in cooperation with the City of Beacon Department of Public Works, implement the recommendations in the Linkage Plan street sections for Beekman Street and Wolcott Avenue.

(4) The Planning Board may require that an applicant constructing a building greater than 10,000 square feet in floor area pay for the provision of related street improvements to improve pedestrian and/or bicycle safety.

Figure 21-17: Parts of the Streetscape



H. (Reserved).[3]

I. Site plan and special permit amendments. For any proposed change to an approved site plan, the applicant shall meet with the Building Inspector who shall make a determination as to whether or not the proposed change is significant. If the Building Inspector determines that the change is significant (e.g., a change of use and/or a change in dimensions of more than 10% shall be presumed to be significant), the application shall be referred to the Planning Board for an amendment to the site plan or special permit, as appropriate. If the Building Inspector determines that the change is not significant and otherwise complies with applicable requirements, the Building Inspector is authorized to issue a building permit without further review.

J. Compliance with below market rate housing requirements. All applications involving residential development shall comply with Article IVB of this chapter (Affordable-Workforce Housing).

K. Design standards.

(1) Because of the design standards in this section, the architectural review provisions of Chapter 86 shall not apply within the L District. In addition to the preceding sections of this article, all new buildings or substantial alterations of existing buildings shall comply with the following design requirements. These design standards are intended to promote the following purposes:

(a) Preserve and enhance the unique character of the City of Beacon;

(b) Promote pedestrian access and activity, as well as a general sense of area security;

3. **Editor's Note: Former Subsection H, Site plan review/special permit procedures and criteria, as amended, was repealed 6-15-2020 by L.L. No. 7-2020.**

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(c) Restore and maintain the role of streets as civic and social spaces, framed by active uses;

(d) Encourage economic development and a convenient mix of uses and services; and

(e) Support a sense of design context that appropriately relates historic buildings, general facade and window patterns, and traditional streetscapes in the area to new redevelopment efforts, while still allowing contemporary architectural flexibility.

(2) Standards using the verb "shall" are required; "should" is used when the standard is to be applied unless the Planning Board finds a strong justification for an alternative solution in an unusual and specific circumstance; and "may" means that the "standard" is an optional guideline that is encouraged but not required.

(3) Buildings should have a top-floor cornice feature and first-floor architectural articulation, such as a storefront with a secondary cornice or an architecturally emphasized entrance doorway, to accent the central body of the building.

(4) Architectural features and windows should be continued on all sides of the building that are clearly visible from a street or public parking area, avoiding any blank walls, except in cases of existing walls or potential common property walls. Larger buildings shall incorporate significant breaks in the facades and rooflines at intervals of no more than 35 feet.

(5) Building elements that provide additional architectural interest, such as bay windows, and cornices, but not including balconies or porches, may encroach up to two feet beyond the front line if the bottom of the encroaching building elements is at least 12 feet above grade. **[Amended 12-9-2019 by L.L. No. 12-2019]**

(6) Metal, glass or canvas-type awnings and canopies or projecting signs are encouraged and may encroach up to six feet into the front setback and over the sidewalk above seven feet. Vinyl awnings are discouraged unless the applicant can demonstrate to the Planning Board's satisfaction that the finish and design of such awning are of high quality, aesthetically pleasing and meet the intended standards of the district, as determined by said Board. **[Amended 7-21-2014 by L.L. No. 11-2014]**

(7) Buildings shall have a front entrance door facing the primary street and connected to the sidewalk. Front entrance doors for commercial buildings and retail storefronts shall be active and provide main access during business hours.

(8) Primary individual window proportions shall be greater in height than in width. Mirrored, reflective, or tinted glass, all-glass walls, and exterior roll-down security gates shall not be permitted. Any shutters shall match the size of the window opening, appear functional, and be attached to the window frame.

(9) Commercial buildings shall have at least 70% glass on the first-floor facades, located between two feet and 10 feet above the sidewalk. Residential buildings shall have at least 30% glass on the first-floor facades.

(10) Finish building materials should be wood, brick, traditional cement-based stucco, stone or fiber-cement siding or other material deemed acceptable by the Planning Board. Vinyl, aluminum or sheet metal siding or sheet trim, exposed concrete blocks or concrete walls, plywood or other similar prefabricated panels, unpainted or unstained lumber, synthetic stone or brick, or synthetic stucco, exterior insulation and finishing system (EIFS), or direct-applied finish system (DAFS), and chain link fencing shall not be permitted. **[Amended 7-21-2014 by L.L. No.**

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11-2014]

(11) Materials and colors should complement historic buildings on the block.

(12) Lighting fixtures shall be a maximum of 15 feet in height, except pole lights in rear parking lots shall be a maximum of 20 feet high. All exterior lighting shall comply with the standards in §223-14B. **[Amended 6-15-2020 by L.L. No. 7-2020]**

(13) Mechanical equipment and refuse containers shall be concealed from public view by approved architectural elements and shall be located to the rear of the site. Window or projecting air conditioners shall not be permitted on the front facade.

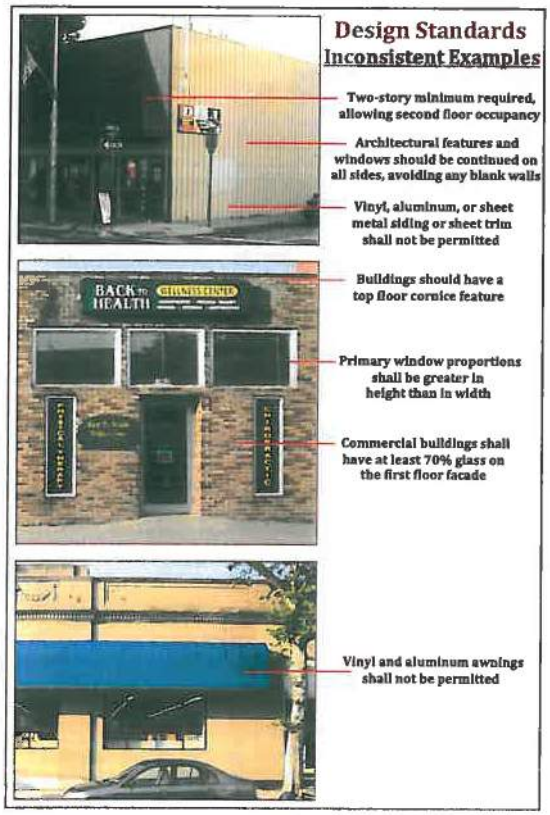
(14) The Planning Board may waive setback requirements for landmark civic buildings, including government buildings, schools, libraries, or places of worship, and for pedestrian-oriented places, such as public greens or plazas and outdoor eating areas.

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Figure 21-18: Design Standards Examples A [Amended 6-15-2020 by L.L. No. 7-2020]



Figure 21-19: Design Standards Examples B



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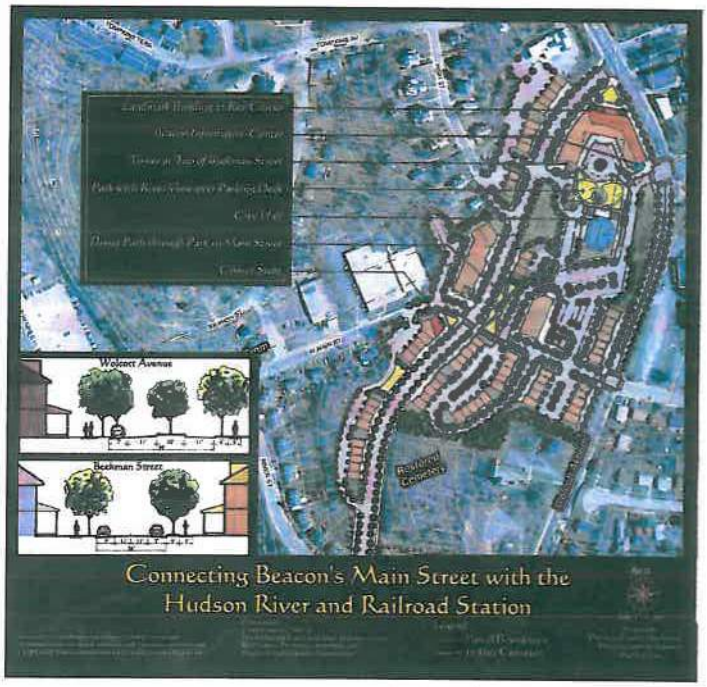
Figure 21-20: Design Standards Examples C



L. Linkage plan. This sketch plan provides one possible set of design solutions, which was included in the 2007 Comprehensive Plan Appendix as an illustration of planning principles for the Linkage District.

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Figure 21-21: Connecting Beacon's Main Street with the Hudson River and Railroad Station



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Land Use: 220 Multifamily Housing—2+ BR (Low-Rise)

Description

Low-rise multifamily housing with two-or-more bedrooms is a residential building with two or three floors (levels) of residence that contain at least one dwelling unit with two or more bedrooms.

Various configurations can fit this description, including the following:

- Walkup apartment or multiplex-access to the individual dwelling units is typically internal to the structure and provided through a shared entry, stairway, and hallway
- Mansion apartment-several dwelling units within what appears from the outside to be a single-family dwelling unit
- Stacked townhouse-designed to match the external appearance of a townhouse, but which have dwelling units that share both floors and walls and with access through a central entry and stairway

Land Use Subcategory

Data are separated into two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Time-of-Day Distribution for Parking Demand

The following table presents a Time-of-Day distribution of parking demand (1) on a weekday (13 study sites) and a Saturday (eight study sites) in a general urban/suburban setting and (2) on a weekday (three study sites) and a Saturday (three study sites) in a dense multi-use urban setting.

	Percent of Peak Parking Demand			
	General Urban/Suburban		Dense Multi-Use Urban	
Hour Beginning	Weekday	Saturday	Weekday	Saturday
12:00-4:00 a.m.	97	92	89	100
5:00 a.m.	100	100	100	92
6:00 a.m.	96	99	97	92
7:00 a.m.	85	97	84	84
8:00 a.m.	67	92	58	76
9:00 a.m.	54	83	55	81
10:00 a.m.	48	79	47	78
11:00 a.m.	45	71	55	86
12:00 p.m.	45	68	55	81
1:00 p.m.	42	65	55	73
2:00 p.m.	42	62	42	70
3:00 p.m.	47	66	45	49
4:00 p.m.	49	66	47	51
5:00 p.m.	56	67	50	46
6:00 p.m.	64	70	68	43
7:00 p.m.	72	78	58	49
8:00 p.m.	77	77	58	59
9:00 p.m.	85	80	61	62
10:00 p.m.	92	82	74	76
11:00 p.m.	95	88	84	86

Additional Data

The average parking supply ratios and average peak parking occupancy for the study sites with parking supply information are shown in the table below.

Setting	Proximity to Rail Transit	Parking Supply Per Dwelling Unit	Average Peak Parking Occupancy
Dense Multi-Use Urban	Within ½ mile of rail transit	1.2 (21 sites)	73%
	Not within ½ mile of rail transit	1.3 (18 sites)	70%
General Urban/ Suburban	Within ½ mile of rail transit	1.6 (31 sites)	72%
	Not within ½ mile of rail transit	1.7 (114 sites)	72%

The sites were surveyed in the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), Arizona, California, Colorado, District of Columbia, Maine, Maryland, Massachusetts, New Jersey, Ontario (CAN), Oregon, Pennsylvania, Tennessee, Virginia, Washington, and Wisconsin.

Source Numbers

209, 218, 219, 247, 255, 277, 314, 402, 414, 419, 432, 437, 505, 512, 533, 535, 536, 537, 538, 544, 545, 577, 578, 579, 580, 584, 585, 587, 603, 604, 610, 611, 617, 620, 631

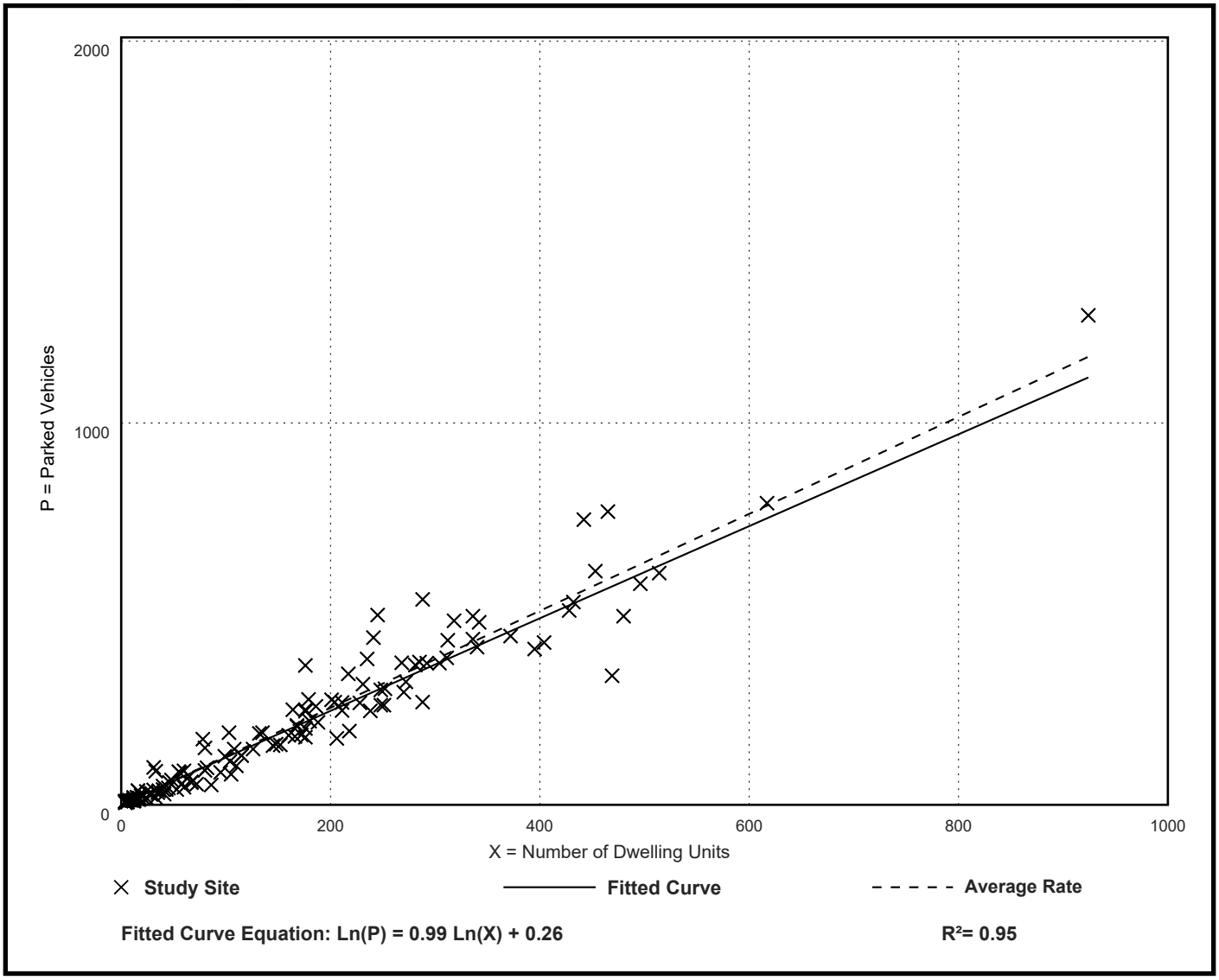
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

Peak Period Parking Demand vs: Dwelling Units
On a: Weekday (Monday - Friday)
Setting/Location: General Urban/Suburban
Number of Studies: 143
Avg. Num. of Dwelling Units: 154

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.27	0.58 - 3.16	1.07 / 1.59	1.22 - 1.32	0.29 (23%)

Data Plot and Equation



Fitted Curve Equation: Ln(P) = 0.99 Ln(X) + 0.26

R^2= 0.95

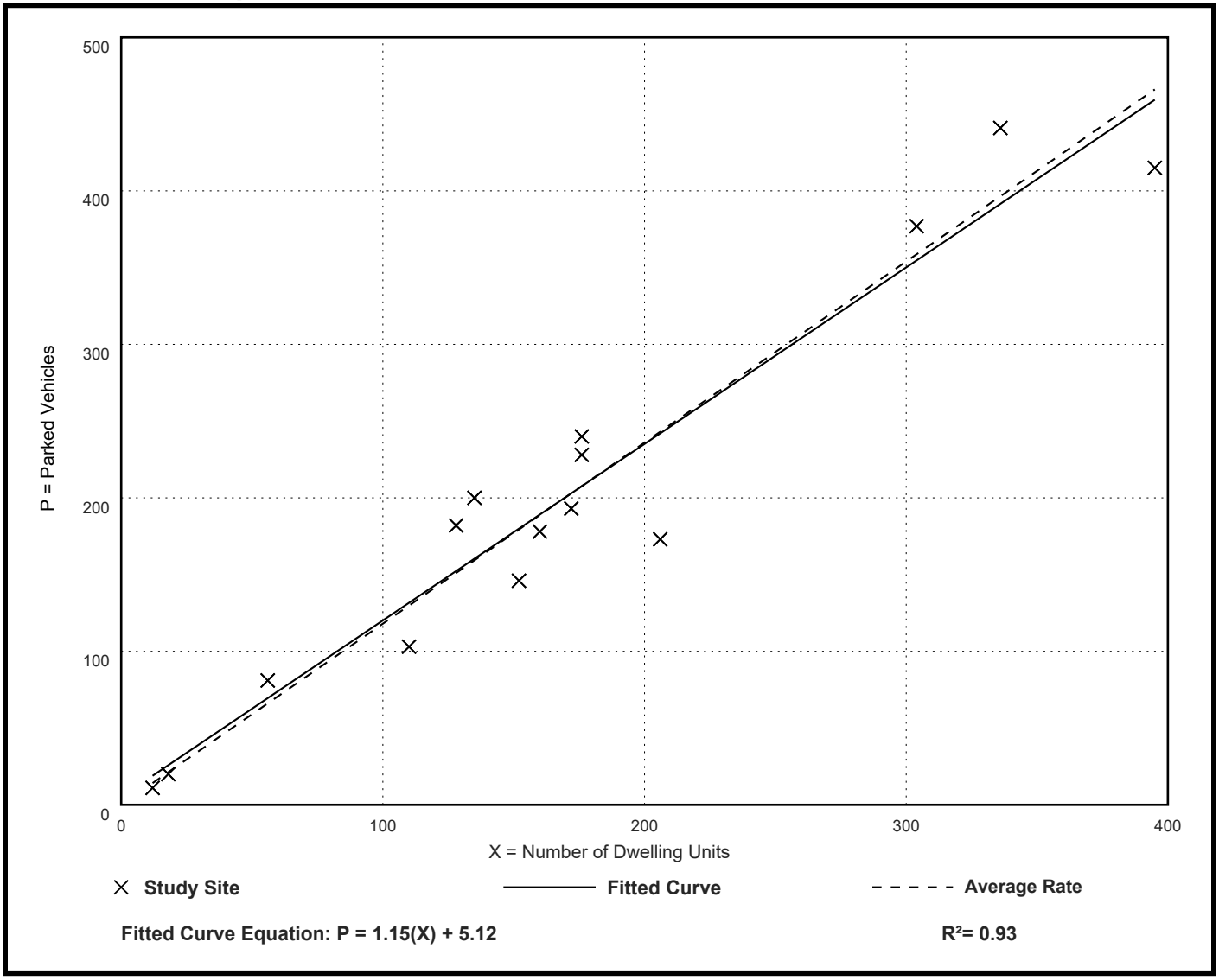
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

Peak Period Parking Demand vs: Dwelling Units
On a: Saturday
Setting/Location: General Urban/Suburban
Number of Studies: 15
Avg. Num. of Dwelling Units: 169

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.18	0.84 - 1.48	1.07 / 1.44	***	0.19 (16%)

Data Plot and Equation



Fitted Curve Equation: P = 1.15(X) + 5.12

R^2= 0.93

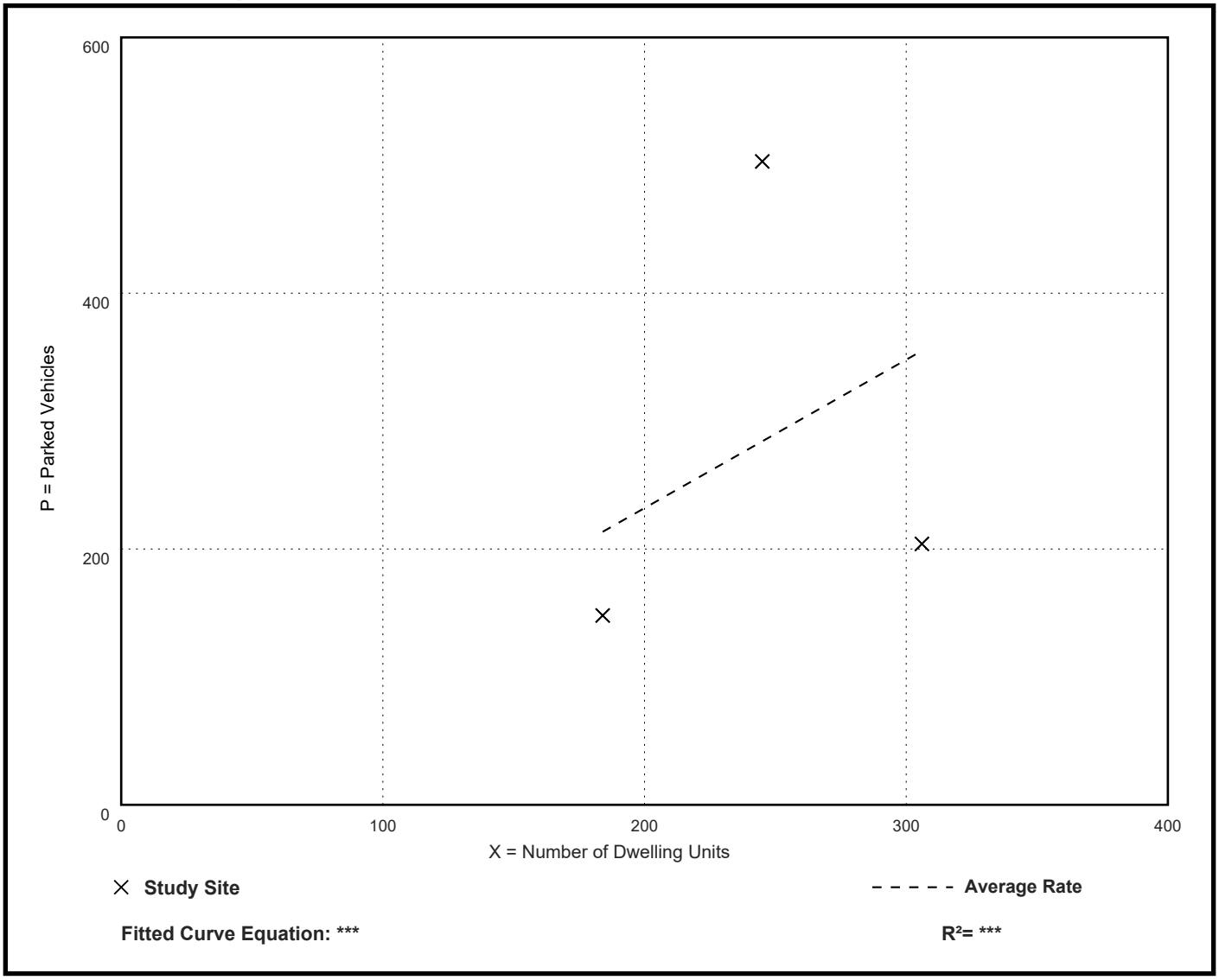
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

Peak Period Parking Demand vs: **Dwelling Units**
On a: **Sunday**
Setting/Location: **General Urban/Suburban**
Number of Studies: 3
Avg. Num. of Dwelling Units: 245

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.16	0.67 - 2.05	0.71 / 2.05	***	0.77 (66%)

Data Plot and Equation



Fitted Curve Equation: ***

R^2= ***

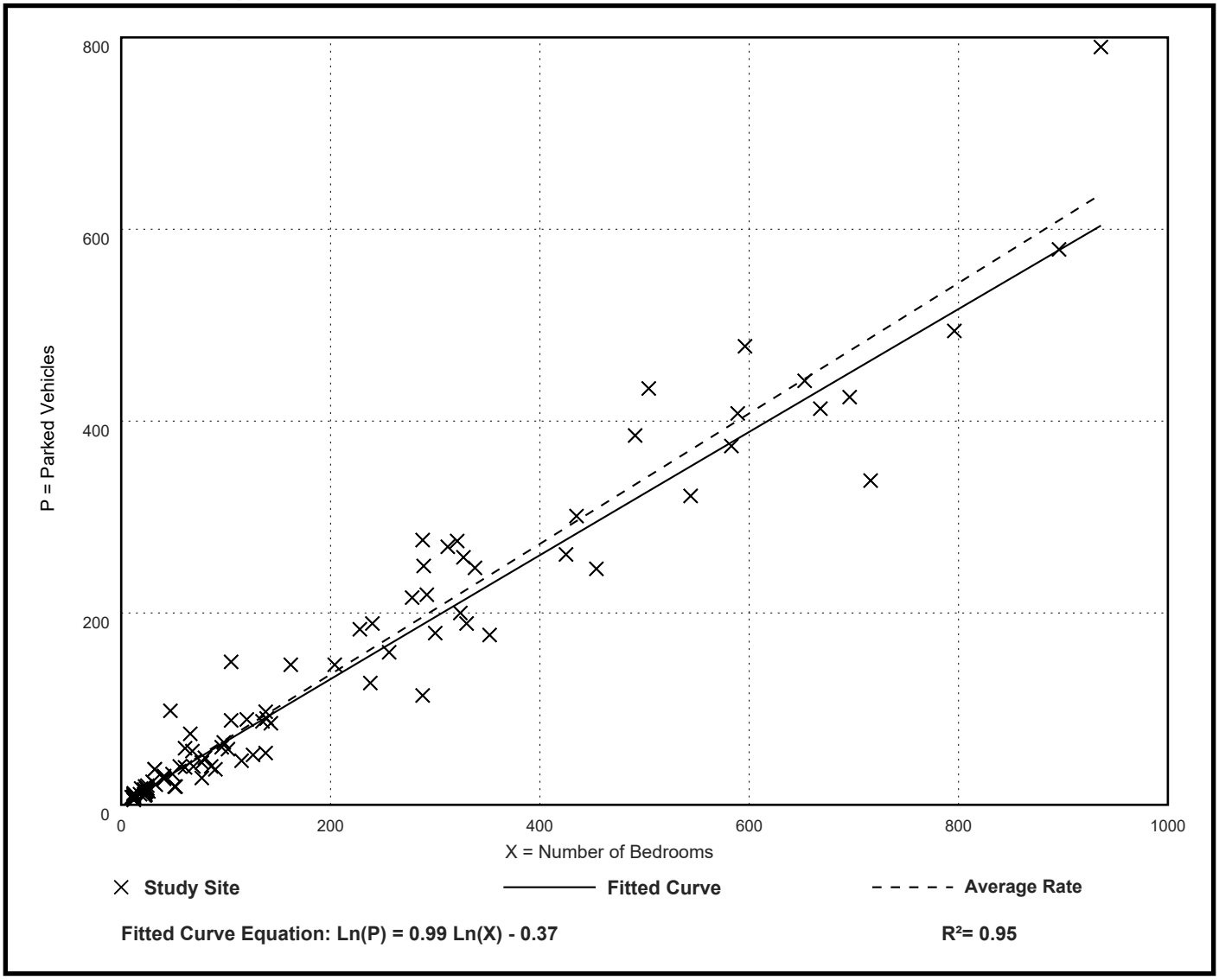
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

Peak Period Parking Demand vs: Bedrooms
On a: Weekday (Monday - Friday)
Setting/Location: General Urban/Suburban
Number of Studies: 97
Avg. Num. of Bedrooms: 192

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.68	0.36 - 2.09	0.61 / 0.86	0.65 - 0.71	0.16 (24%)

Data Plot and Equation



Fitted Curve Equation: Ln(P) = 0.99 Ln(X) - 0.37

R^2= 0.95

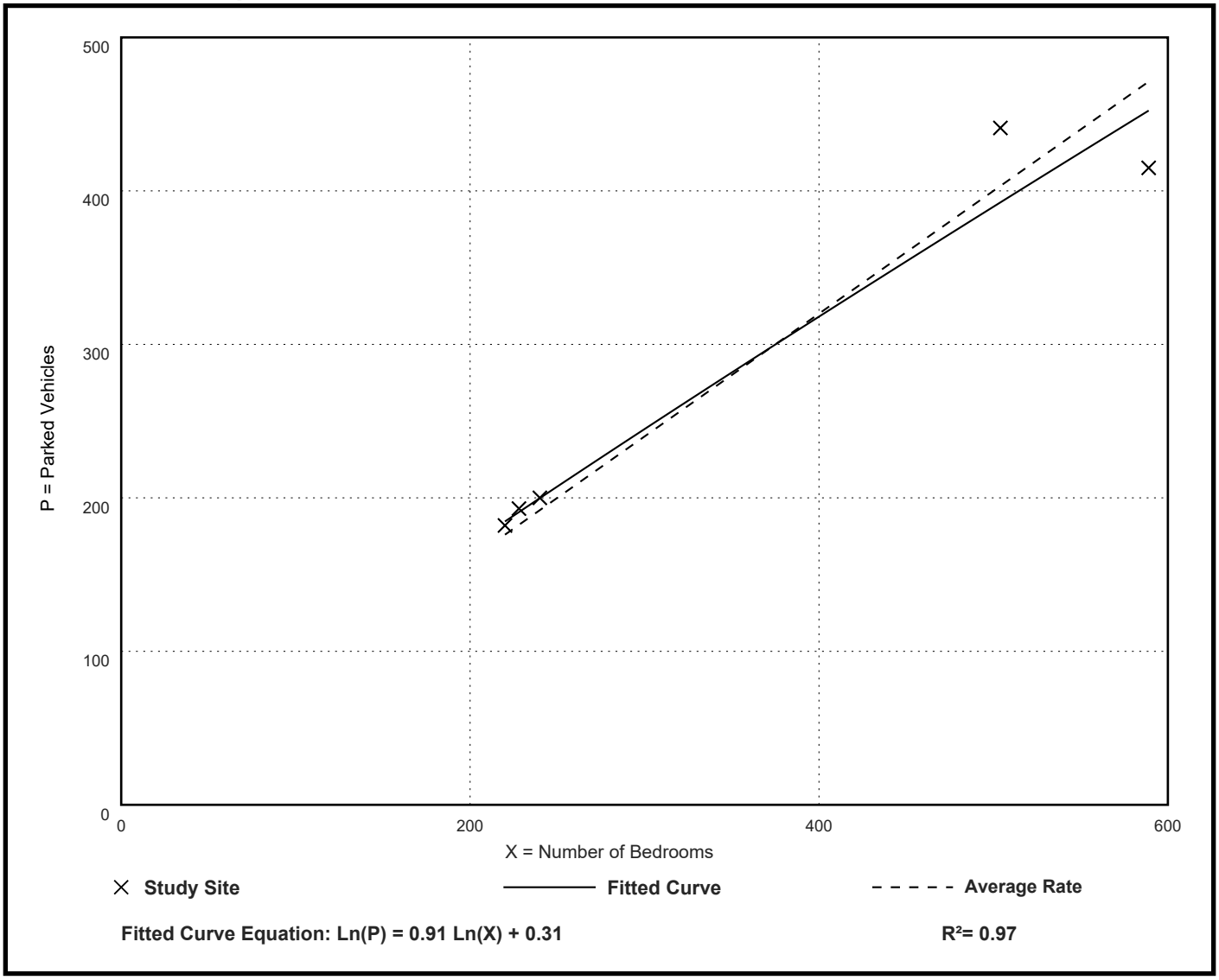
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

Peak Period Parking Demand vs: Bedrooms
On a: Saturday
Setting/Location: General Urban/Suburban
Number of Studies: 5
Avg. Num. of Bedrooms: 356

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.80	0.70 - 0.88	0.82 / 0.88	***	0.08 (10%)

Data Plot and Equation



Fitted Curve Equation: Ln(P) = 0.91 Ln(X) + 0.31

R^2= 0.97

Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

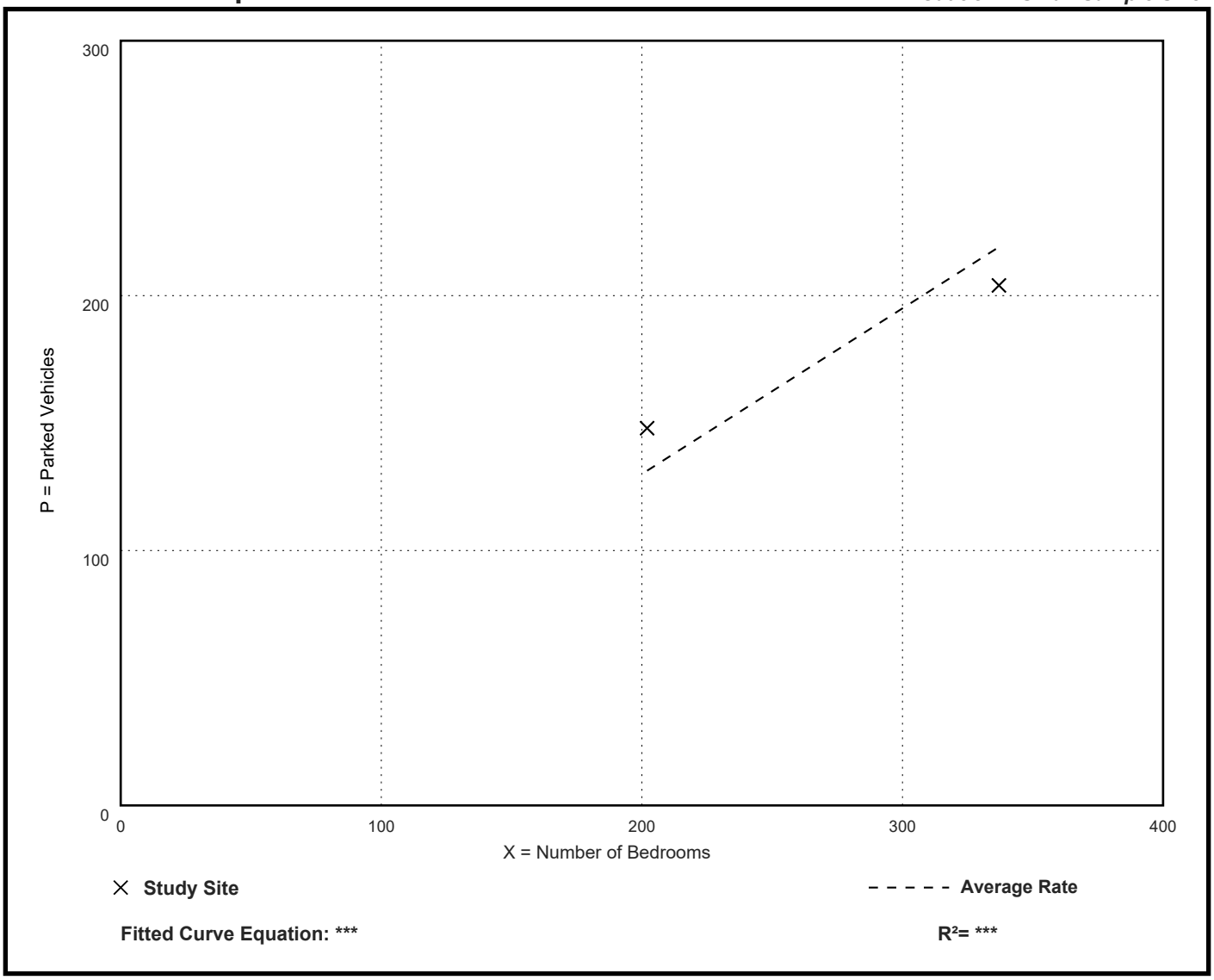
Peak Period Parking Demand vs: Bedrooms
On a: Sunday
Setting/Location: General Urban/Suburban
Number of Studies: 2
Avg. Num. of Bedrooms: 270

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.65	0.61 - 0.73	*** / ***	***	*** (***)

Data Plot and Equation

Caution – Small Sample Size



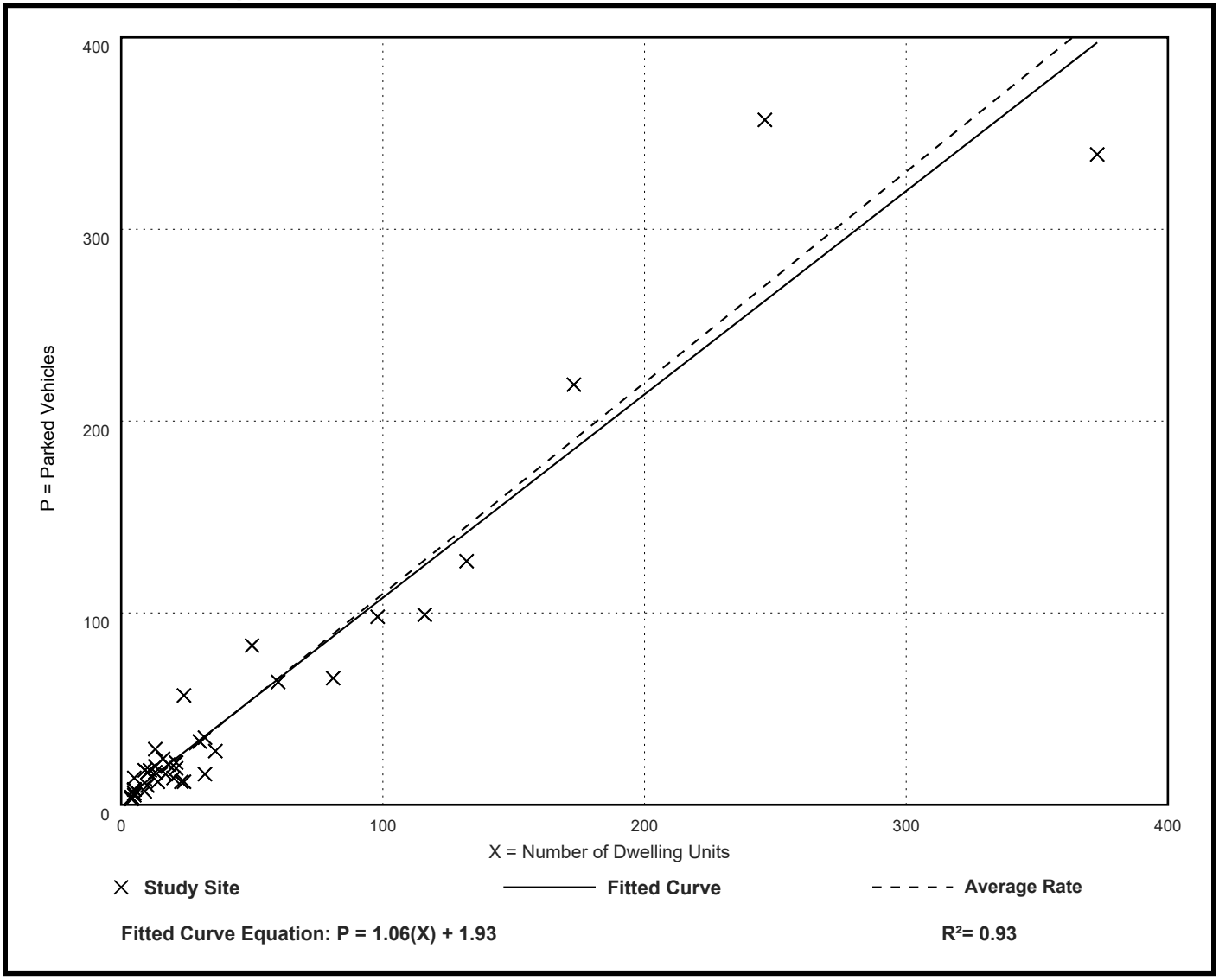
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

Peak Period Parking Demand vs: **Dwelling Units**
On a: **Weekday (Monday - Friday)**
Setting/Location: **Dense Multi-Use Urban**
Number of Studies: 39
Avg. Num. of Dwelling Units: 46

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.10	0.50 - 2.80	0.95 / 1.66	0.99 - 1.21	0.35 (32%)

Data Plot and Equation



Fitted Curve Equation: P = 1.06(X) + 1.93

R^2= 0.93

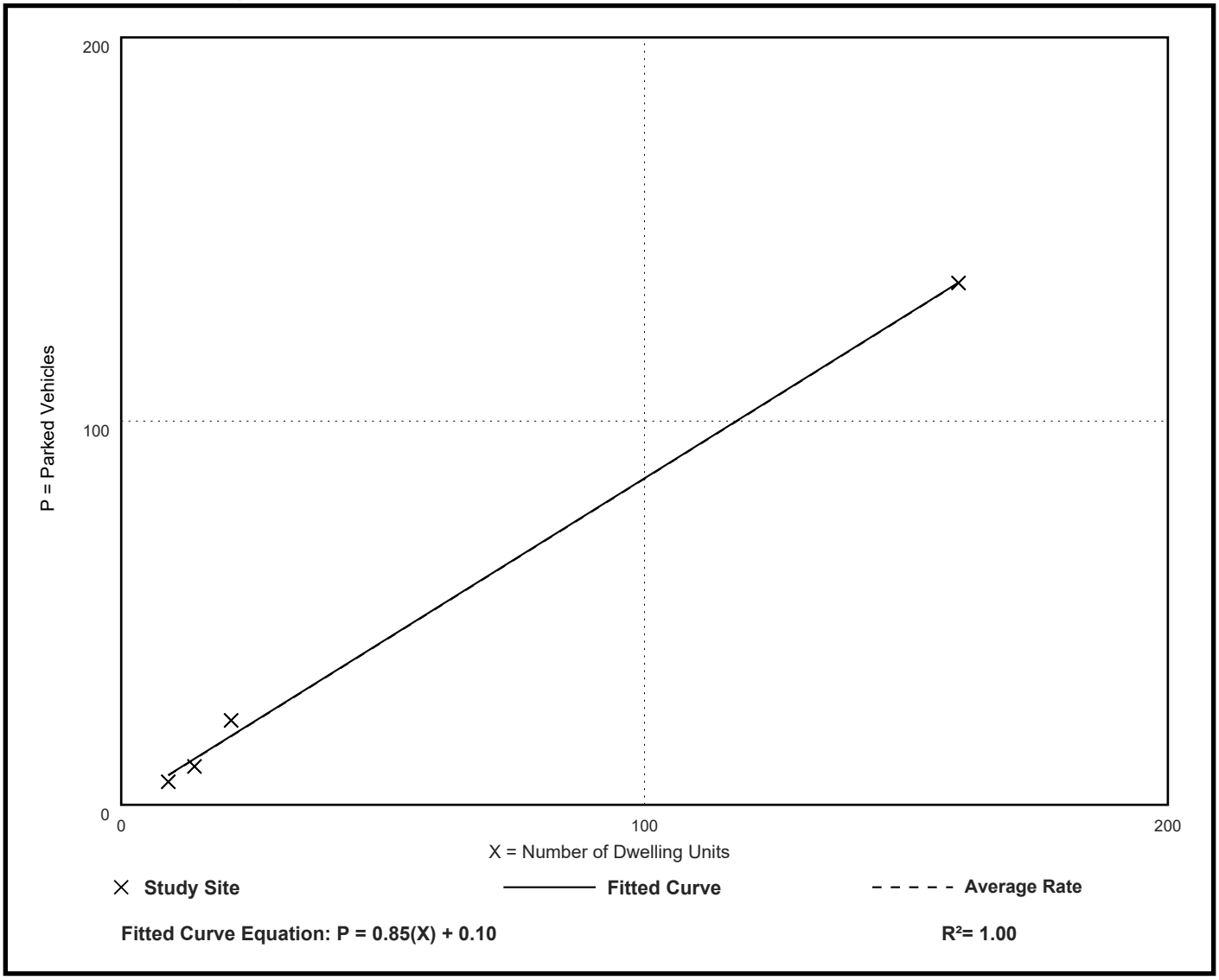
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

Peak Period Parking Demand vs: Dwelling Units
On a: Saturday
Setting/Location: Dense Multi-Use Urban
Number of Studies: 4
Avg. Num. of Dwelling Units: 51

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.85	0.67 - 1.05	0.70 / 1.05	***	0.09 (11%)

Data Plot and Equation



Fitted Curve Equation: P = 0.85(X) + 0.10

R^2= 1.00

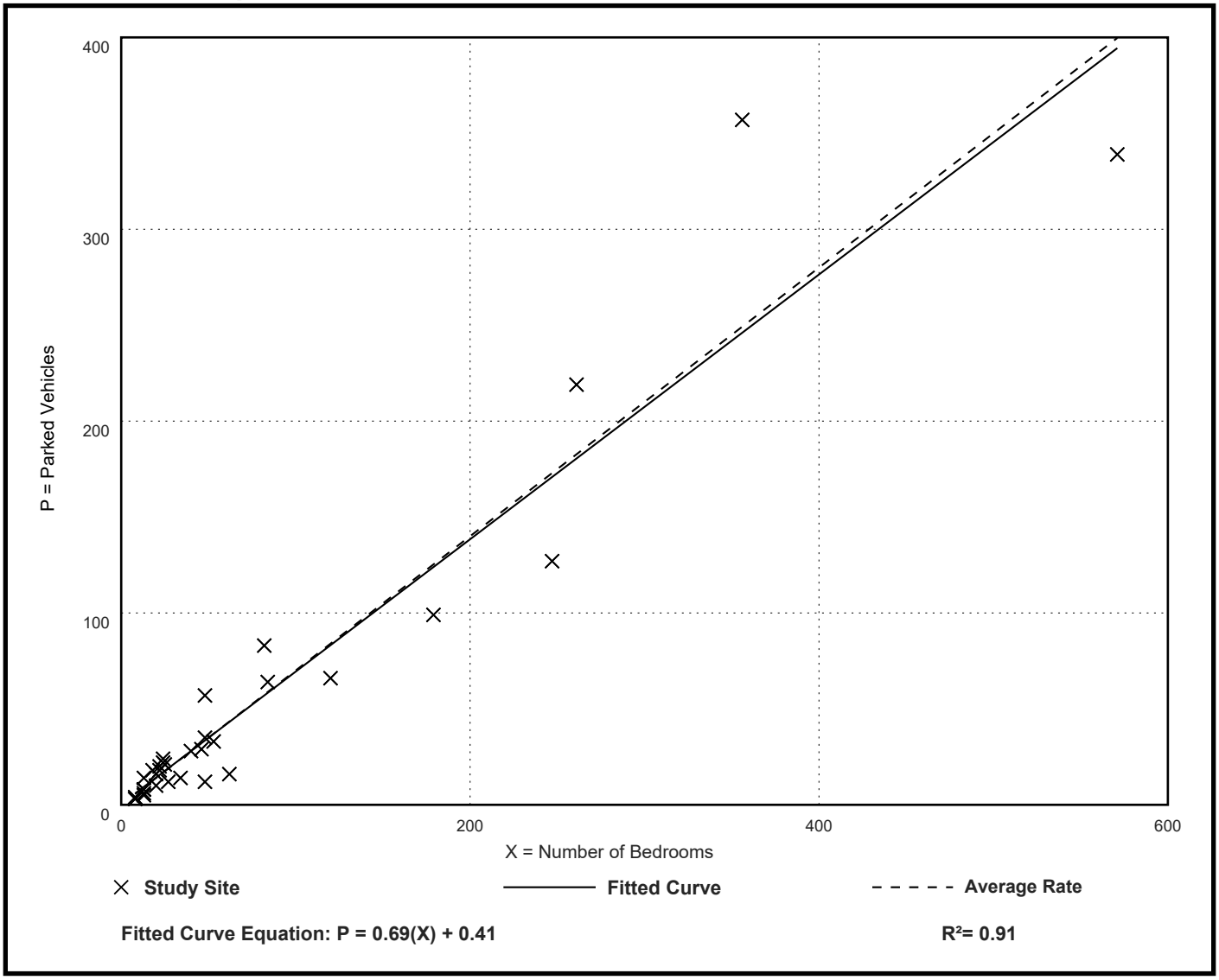
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

Peak Period Parking Demand vs: **Bedrooms**
On a: **Weekday (Monday - Friday)**
Setting/Location: **Dense Multi-Use Urban**
Number of Studies: 33
Avg. Num. of Bedrooms: 78

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.70	0.25 - 1.19	0.55 / 1.00	0.62 - 0.78	0.22 (31%)

Data Plot and Equation



Fitted Curve Equation: P = 0.69(X) + 0.41

R^2= 0.91

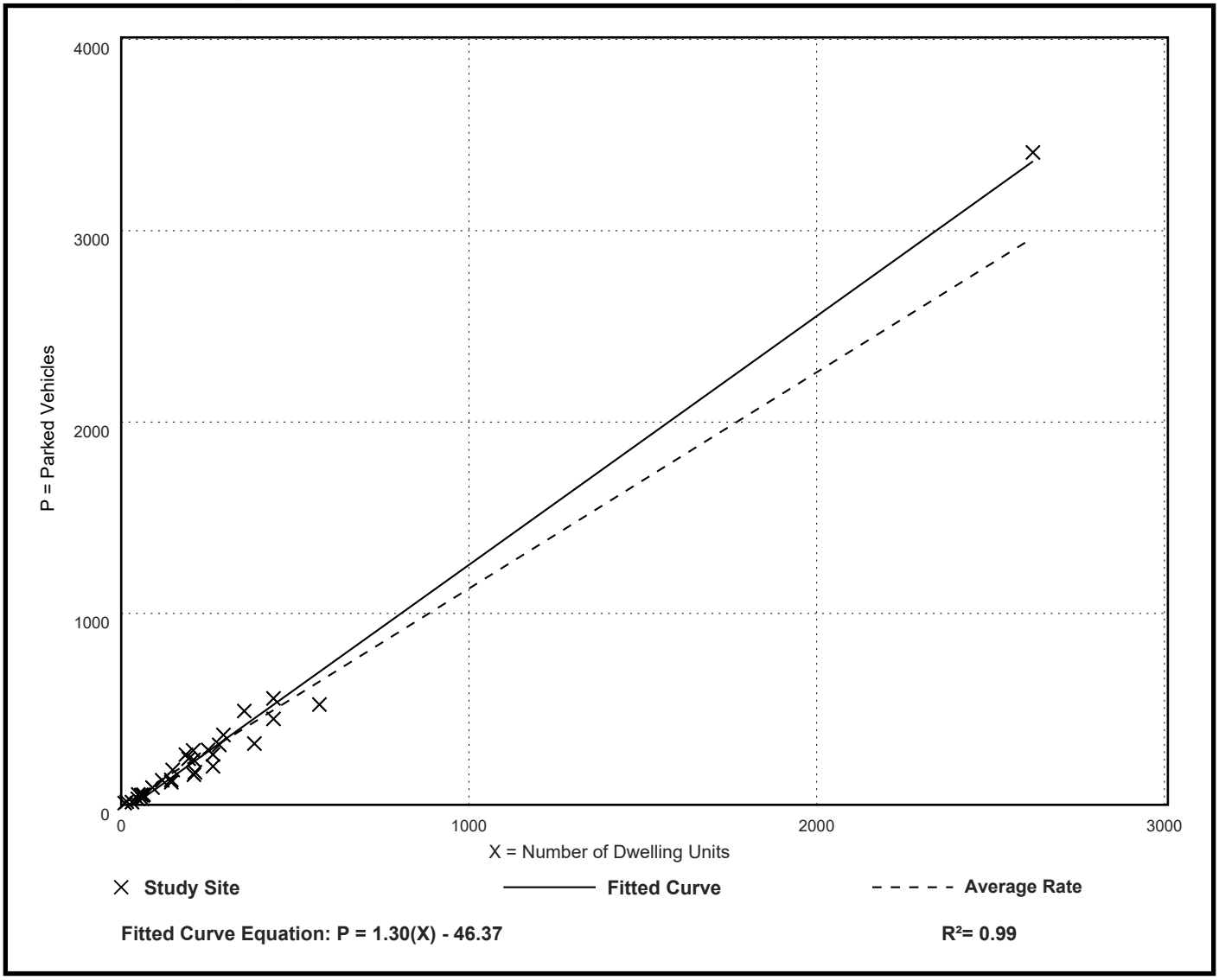
Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

Peak Period Parking Demand vs: Dwelling Units
On a: Weekday (Monday - Friday)
Setting/Location: General Urban/Suburban
Number of Studies: 31
Avg. Num. of Dwelling Units: 272

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.13	0.45 - 1.41	0.86 / 1.28	1.05 - 1.21	0.22 (19%)

Data Plot and Equation



Fitted Curve Equation: P = 1.30(X) - 46.37

R^2= 0.99

Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

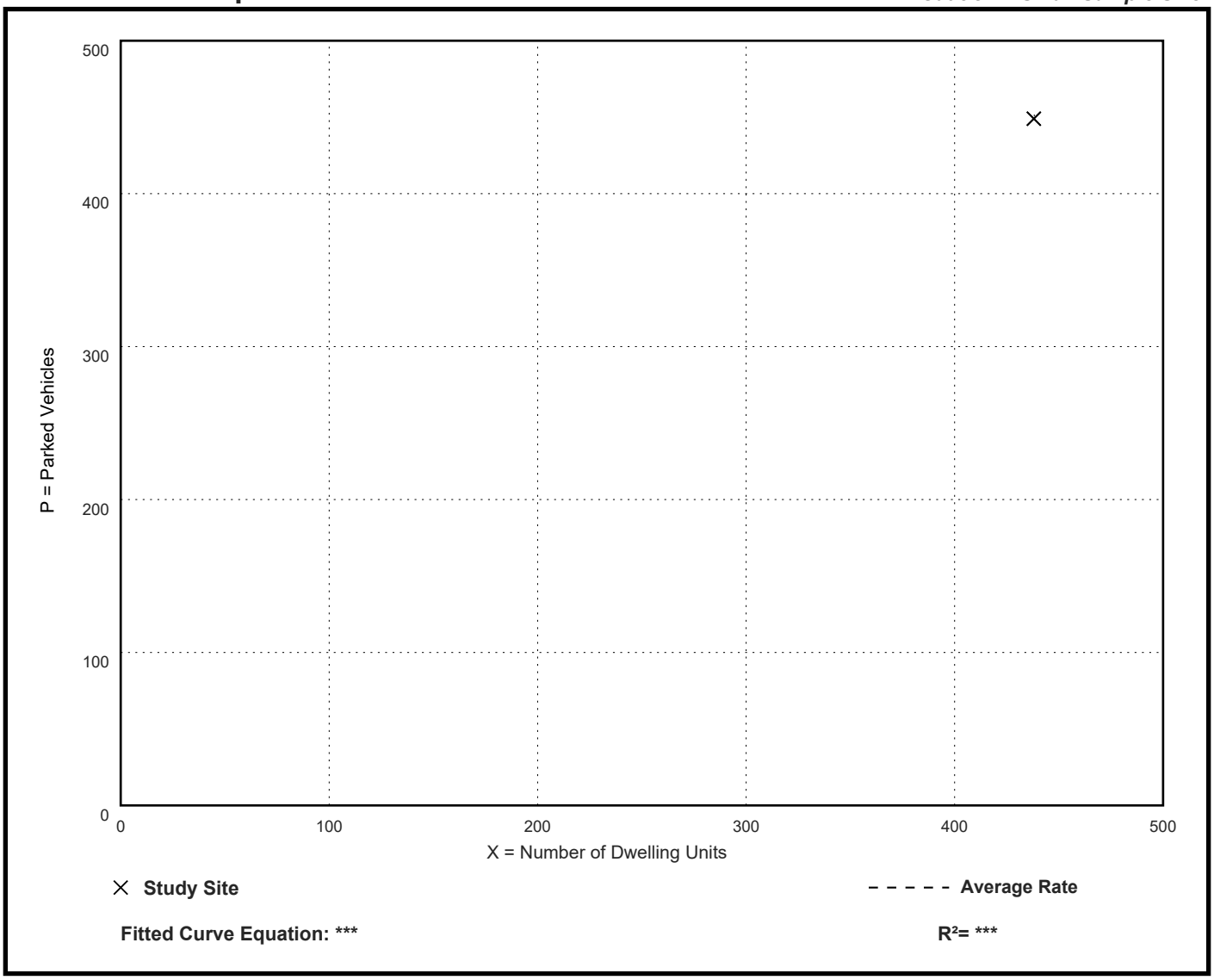
Peak Period Parking Demand vs: **Dwelling Units**
On a: **Saturday**
Setting/Location: **General Urban/Suburban**
Number of Studies: 1
Avg. Num. of Dwelling Units: 438

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.03	1.03 - 1.03	*** / ***	***	*** (***)

Data Plot and Equation

Caution – Small Sample Size



Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

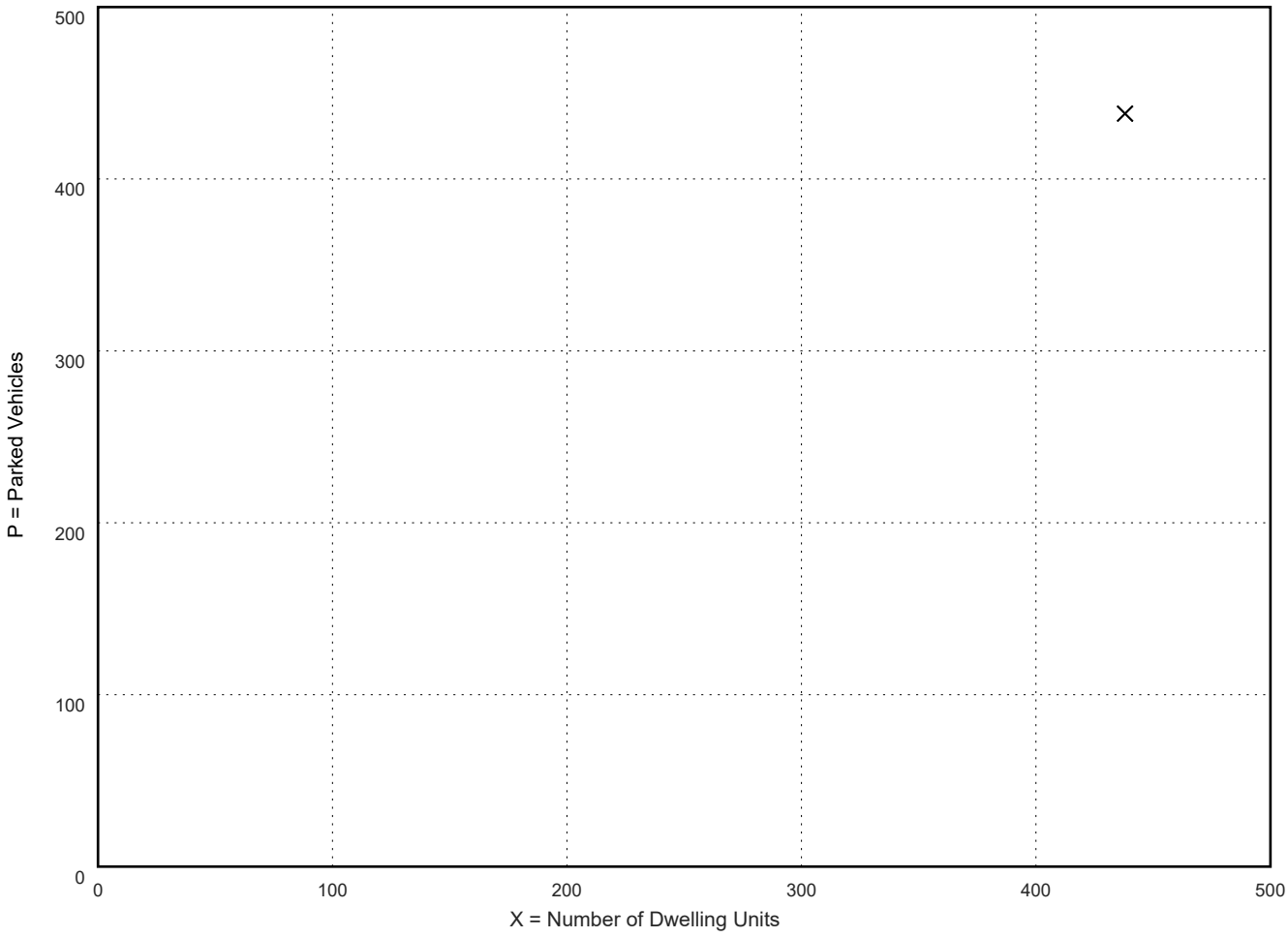
Peak Period Parking Demand vs: **Dwelling Units**
On a: **Sunday**
Setting/Location: **General Urban/Suburban**
Number of Studies: 1
Avg. Num. of Dwelling Units: 438

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.00	1.00 - 1.00	*** / ***	***	*** (***)

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: ***

R^2= ***

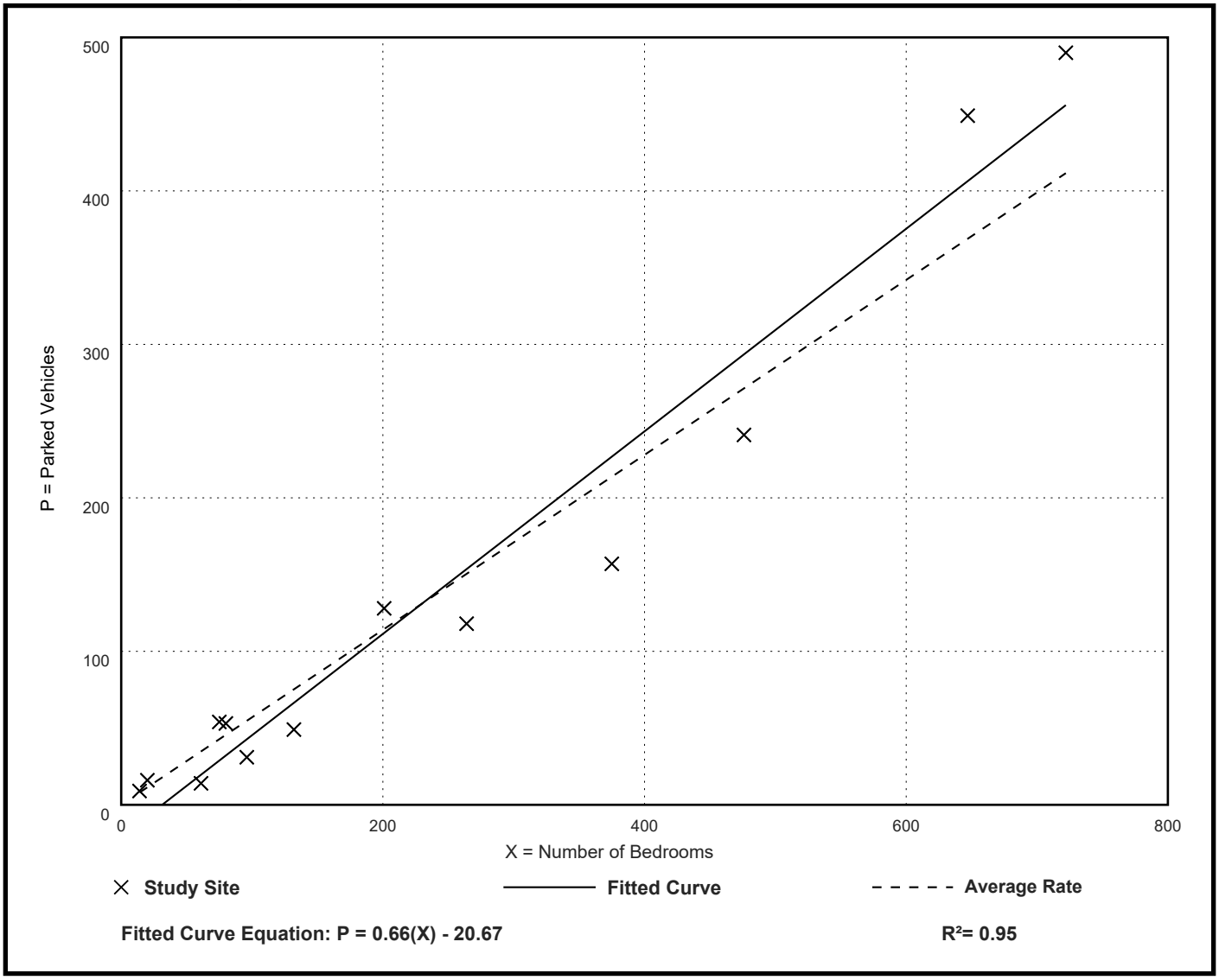
Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

Peak Period Parking Demand vs: Bedrooms
On a: Weekday (Monday - Friday)
Setting/Location: General Urban/Suburban
Number of Studies: 13
Avg. Num. of Bedrooms: 243

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.57	0.23 - 0.80	0.44 / 0.72	***	0.14 (25%)

Data Plot and Equation



Fitted Curve Equation: P = 0.66(X) - 20.67

R^2= 0.95

Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

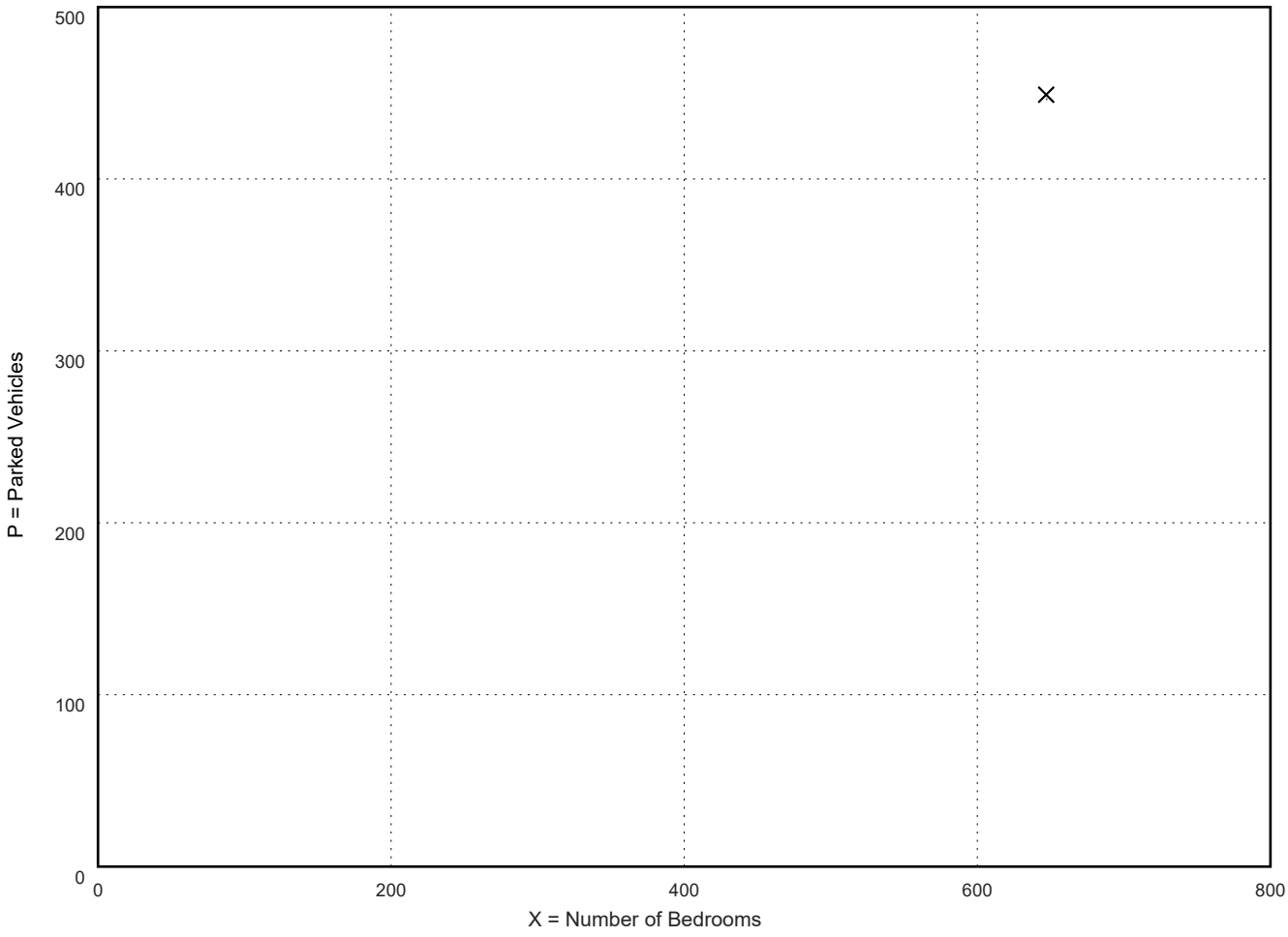
Peak Period Parking Demand vs: **Bedrooms**
On a: **Saturday**
Setting/Location: **General Urban/Suburban**
Number of Studies: 1
Avg. Num. of Bedrooms: 647

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.69	0.69 - 0.69	*** / ***	***	*** (***)

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: ***

R^2= ***

Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

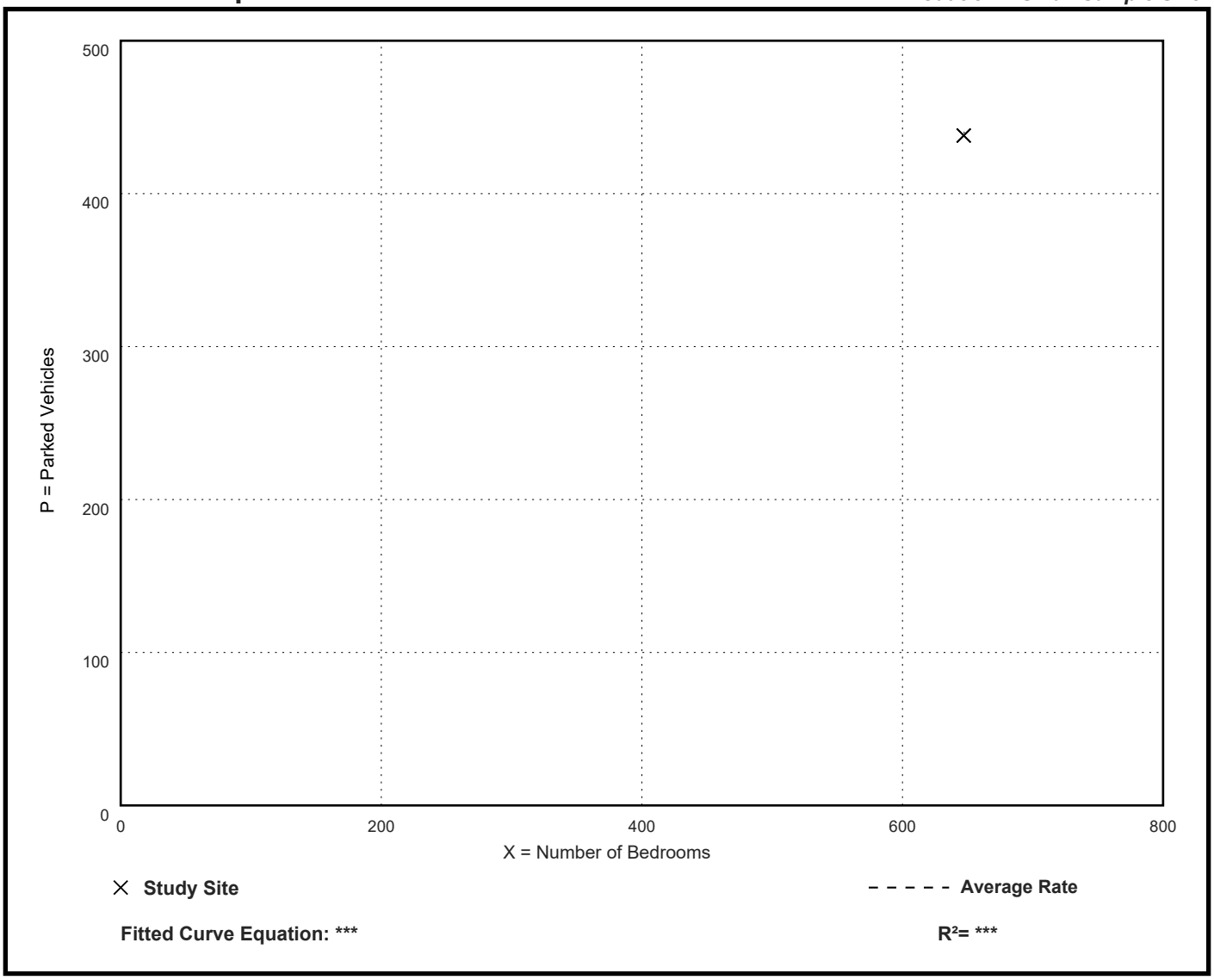
Peak Period Parking Demand vs: Bedrooms
On a: Sunday
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Bedrooms: 647

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.68	0.68 - 0.68	*** / ***	***	*** (***)

Data Plot and Equation

Caution – Small Sample Size



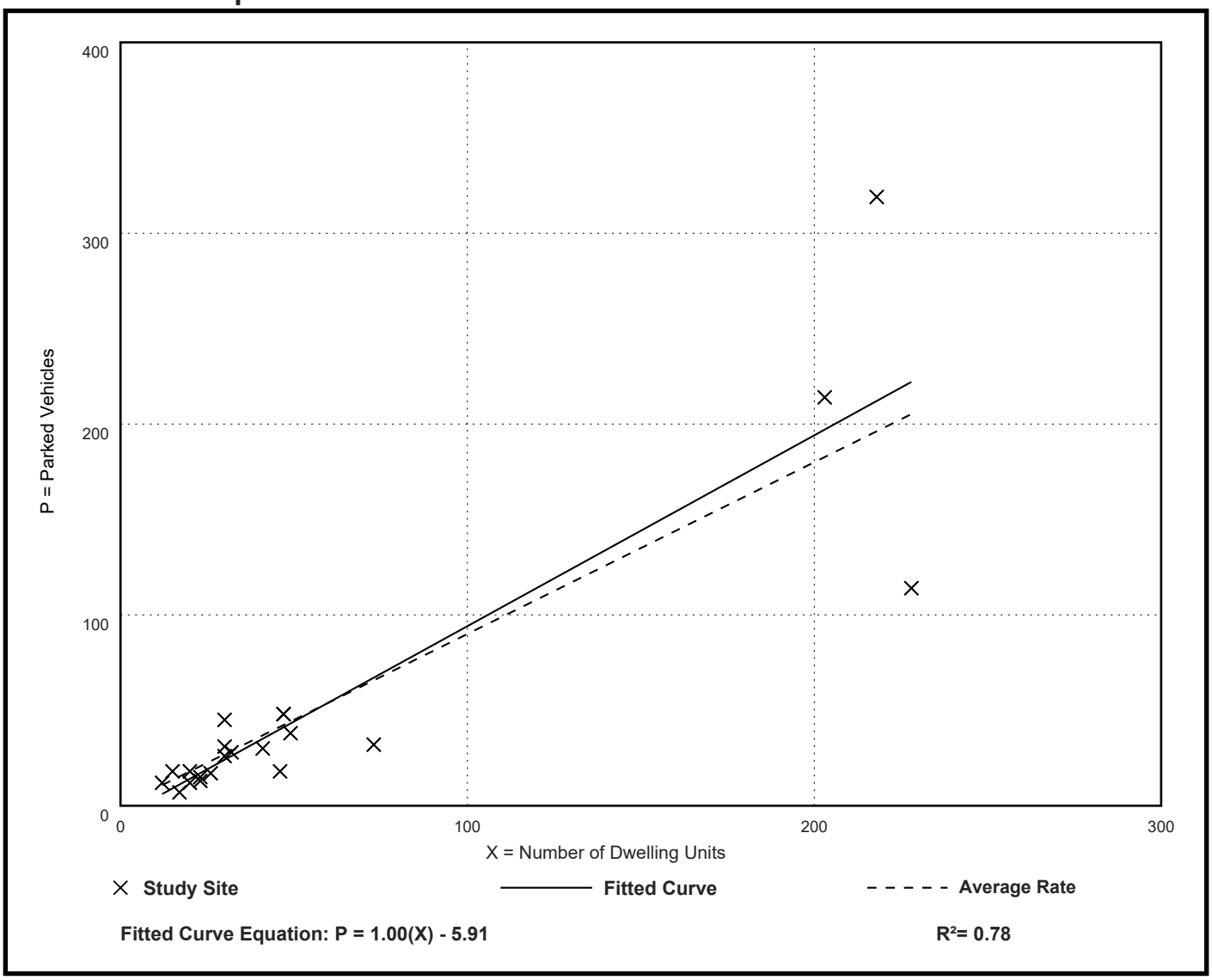
Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

Peak Period Parking Demand vs: **Dwelling Units**
On a: **Weekday (Monday - Friday)**
Setting/Location: **Dense Multi-Use Urban**
Number of Studies: 21
Avg. Num. of Dwelling Units: 59

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.90	0.39 - 1.50	0.65 / 1.16	0.74 - 1.06	0.38 (42%)

Data Plot and Equation



Fitted Curve Equation: P = 1.00(X) - 5.91

R^2= 0.78

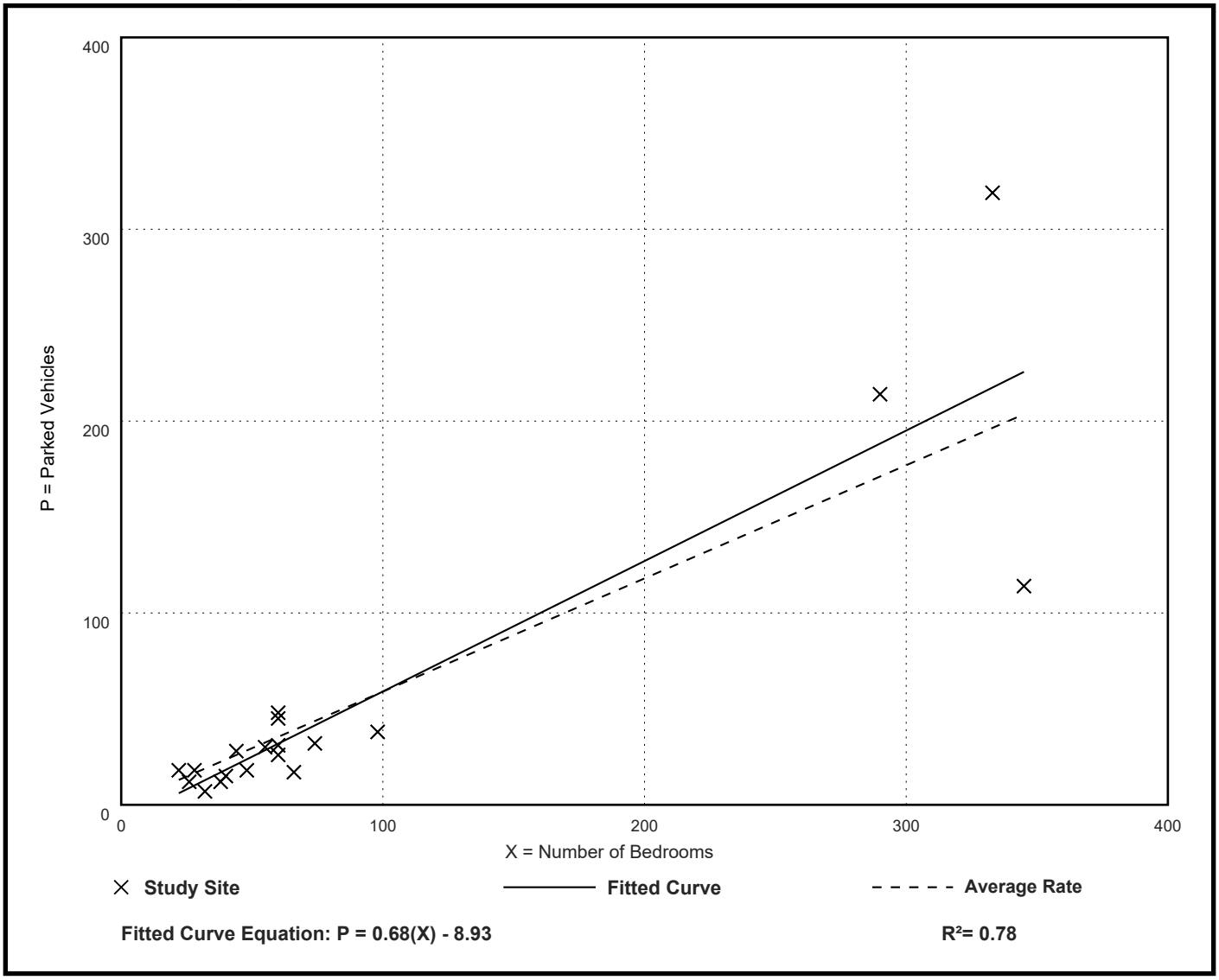
Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

Peak Period Parking Demand vs: **Bedrooms**
On a: **Weekday (Monday - Friday)**
Setting/Location: **Dense Multi-Use Urban**
Number of Studies: 19
Avg. Num. of Bedrooms: 94

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.59	0.22 - 0.96	0.38 / 0.80	***	0.25 (42%)

Data Plot and Equation



Land Use: 822 Strip Retail Plaza (<40k)

Description

A strip retail plaza is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. Each study site in this land use has less than 40,000 square feet of gross leasable area (GLA). Because a strip retail plaza is open-air, the GLA is the same as the gross floor area (GFA) of the building.

The 40,000 square feet GLA threshold between shopping plaza and strip retail plaza (Land Use 822) is based on an examination of the parking demand database. All shopping plazas with a supermarket as their anchor in the database are larger than 40,000 square feet GLA.

Time-of-Day Distribution for Parking Demand

The following table presents a time-of-day distribution of parking demand on a Monday–Thursday (five study sites), a Friday (two study sites), and a Saturday (four study sites).

Hour Beginning	Percent of Peak Parking Demand		
	Monday–Thursday	Friday	Saturday
12:00–4:00 a.m.	—	—	—
5:00 a.m.	—	—	—
6:00 a.m.	—	—	—
7:00 a.m.	—	—	—
8:00 a.m.	19	19	—
9:00 a.m.	33	40	38
10:00 a.m.	47	44	55
11:00 a.m.	55	52	66
12:00 p.m.	89	96	85
1:00 p.m.	100	96	100
2:00 p.m.	73	84	96
3:00 p.m.	73	52	79
4:00 p.m.	66	50	66
5:00 p.m.	70	63	64
6:00 p.m.	75	49	67
7:00 p.m.	70	100	70
8:00 p.m.	54	94	70
9:00 p.m.	48	73	51
10:00 p.m.	—	—	—
11:00 p.m.	—	—	—

Additional Data

The average parking supply ratios for the study sites with parking supply information are the following:

- 5.7 spaces per 1,000 square feet GLA (24 sites) in a general urban/suburban setting
- 3.3 spaces per 1,000 square feet GLA (3 sites) in a dense multi-use urban setting

The average peak parking occupancy is 50 percent at the general urban/suburban sites and 76 percent at the dense multi-use urban sites.

The sites were surveyed in the 1990s, the 2010s, and the 2020s in Alberta (CAN), British Columbia (CAN), California, Colorado, Kansas, Maine, Manitoba (CAN), Maryland, Michigan, Minnesota, Missouri, New York, Texas, Virginia, and Washington.

Future data submissions should attempt to provide information on the composition of each study site (types and number of stores, restaurants, or other tenants within the shopping center).

Source Numbers

89, 209, 219, 297, 511, 601, 605, 606, 618, 619, 621, 635

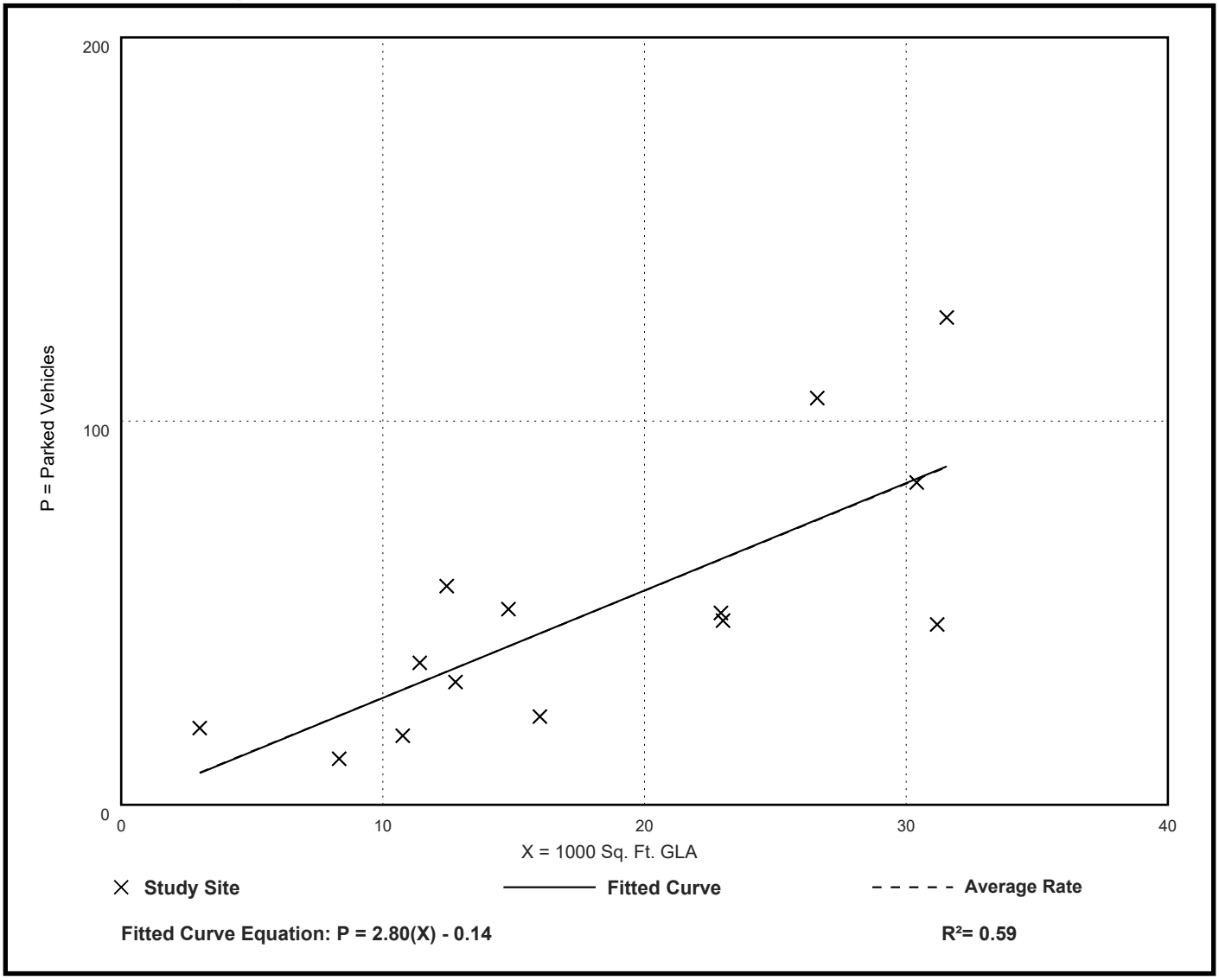
Strip Retail Plaza (< 40k)
(822)

Peak Period Parking Demand vs: 1000 Sq. Ft. GLA
On a: Weekday (Monday - Thursday)
Setting/Location: General Urban/Suburban
Number of Studies: 14
Avg. 1000 Sq. Ft. GLA: 18

Peak Period Parking Demand per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
2.79	1.44 - 6.67	2.07 / 4.44	***	1.14 (41%)

Data Plot and Equation



Fitted Curve Equation: P = 2.80(X) - 0.14

R^2= 0.59

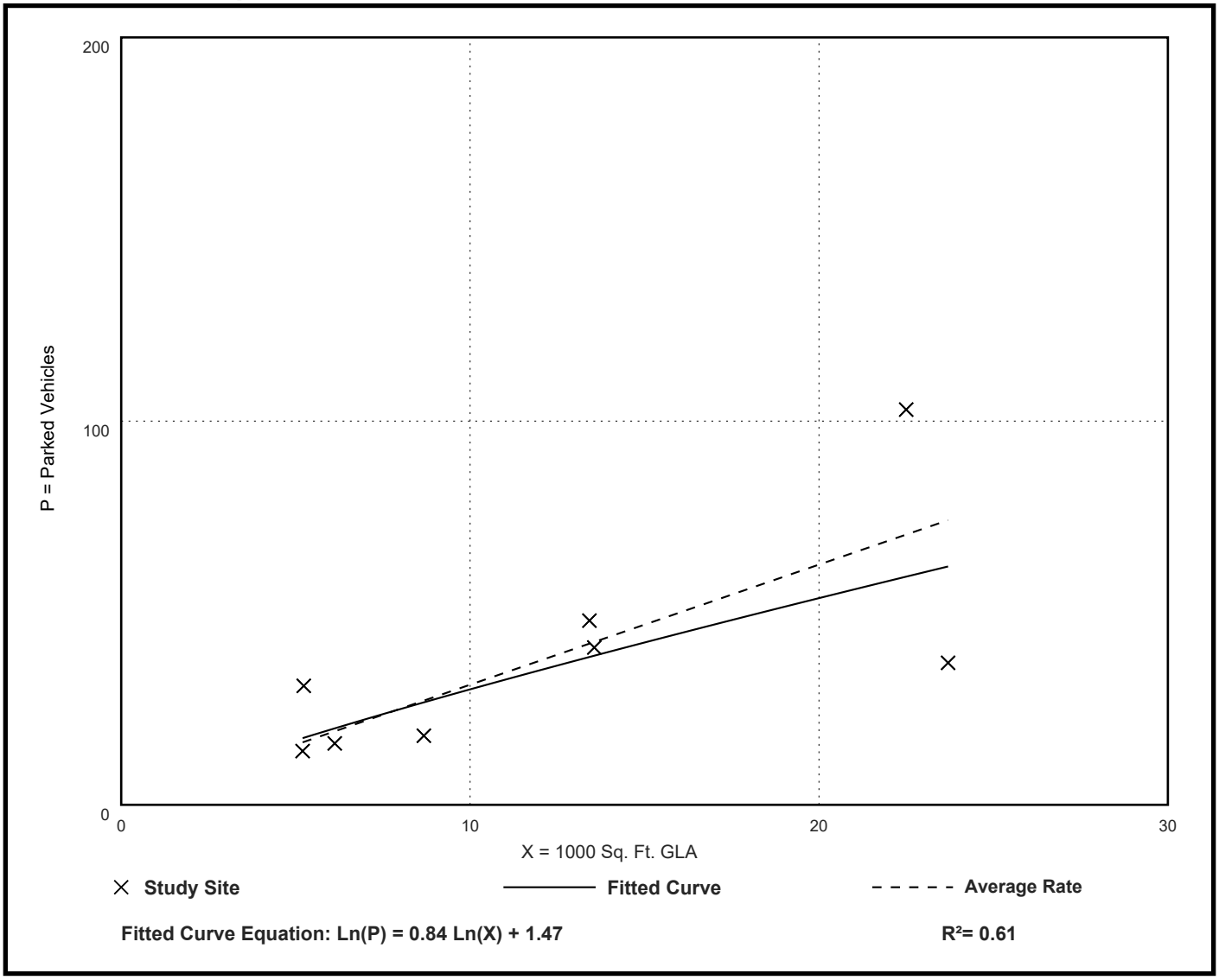
Strip Retail Plaza (< 40k)
(822)

Peak Period Parking Demand vs: 1000 Sq. Ft. GLA
On a: Friday
Setting/Location: General Urban/Suburban
Number of Studies: 8
Avg. 1000 Sq. Ft. GLA: 12

Peak Period Parking Demand per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
3.13	1.56 - 5.93	2.60 / 5.45	***	1.37 (44%)

Data Plot and Equation



Fitted Curve Equation: Ln(P) = 0.84 Ln(X) + 1.47

R^2= 0.61

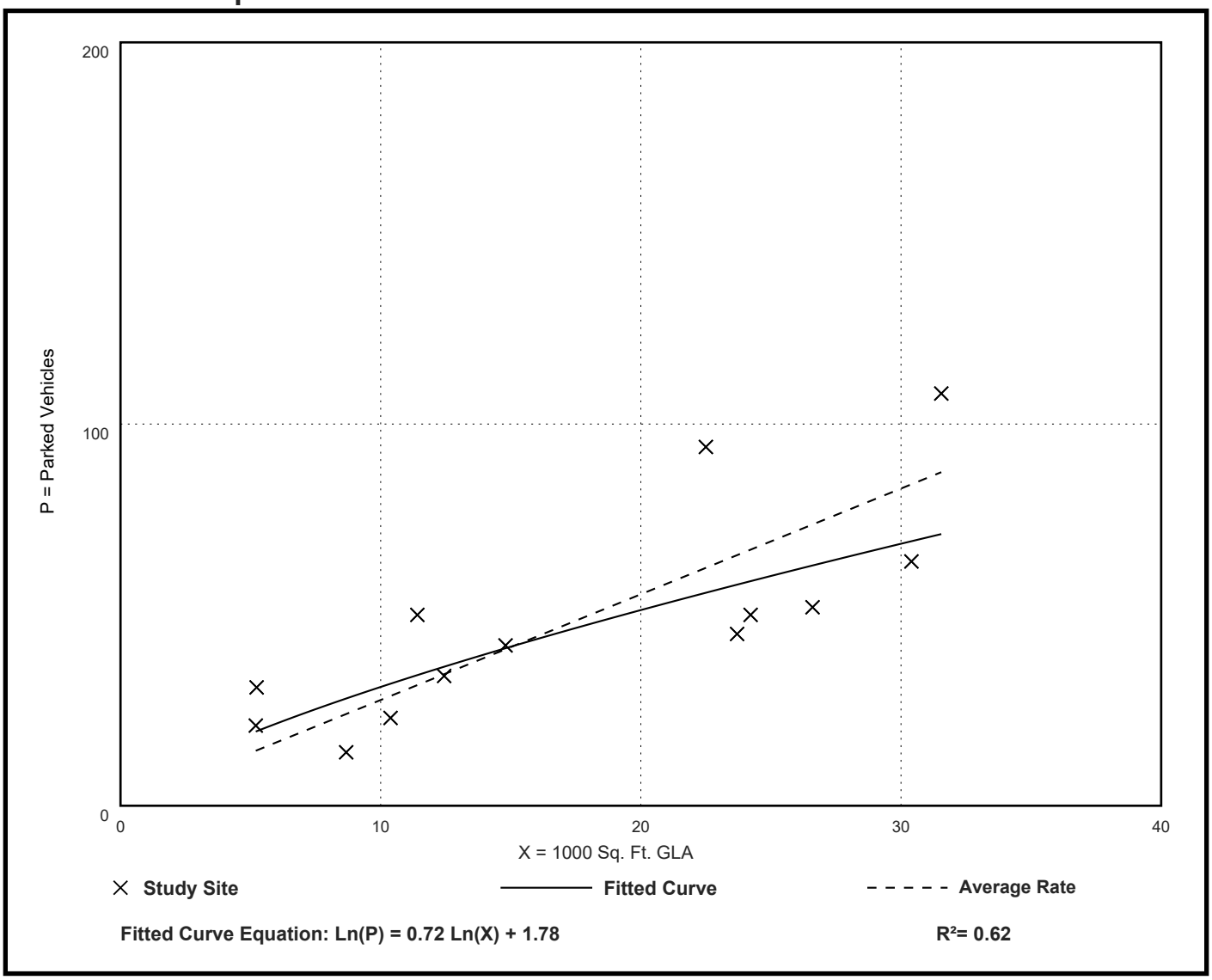
Strip Retail Plaza (< 40k)
(822)

Peak Period Parking Demand vs: 1000 Sq. Ft. GLA
On a: Saturday
Setting/Location: General Urban/Suburban
Number of Studies: 13
Avg. 1000 Sq. Ft. GLA: 17

Peak Period Parking Demand per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
2.77	1.61 - 5.93	2.09 / 4.36	***	1.03 (37%)

Data Plot and Equation



Fitted Curve Equation: Ln(P) = 0.72 Ln(X) + 1.78

R^2= 0.62

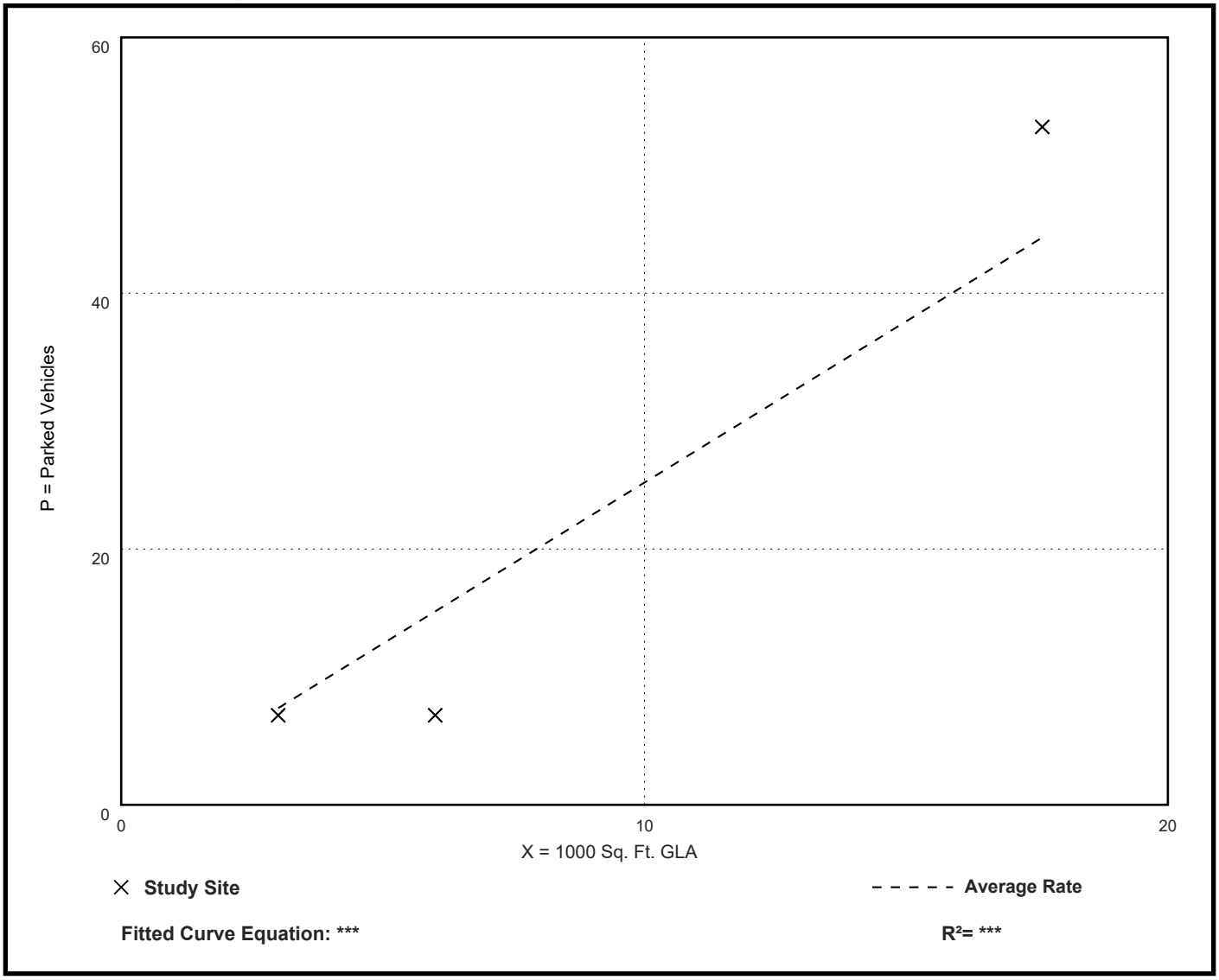
Strip Retail Plaza (< 40k)
(822)

Peak Period Parking Demand vs: 1000 Sq. Ft. GLA
On a: Weekday (Monday - Thursday)
Setting/Location: Dense Multi-Use Urban
Number of Studies: 3
Avg. 1000 Sq. Ft. GLA: 8.9

Peak Period Parking Demand per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
2.52	1.17 - 3.01	1.54 / 3.01	***	0.93 (37%)

Data Plot and Equation



Fitted Curve Equation: ***

R^2= ***

Strip Retail Plaza (< 40k)
(822)

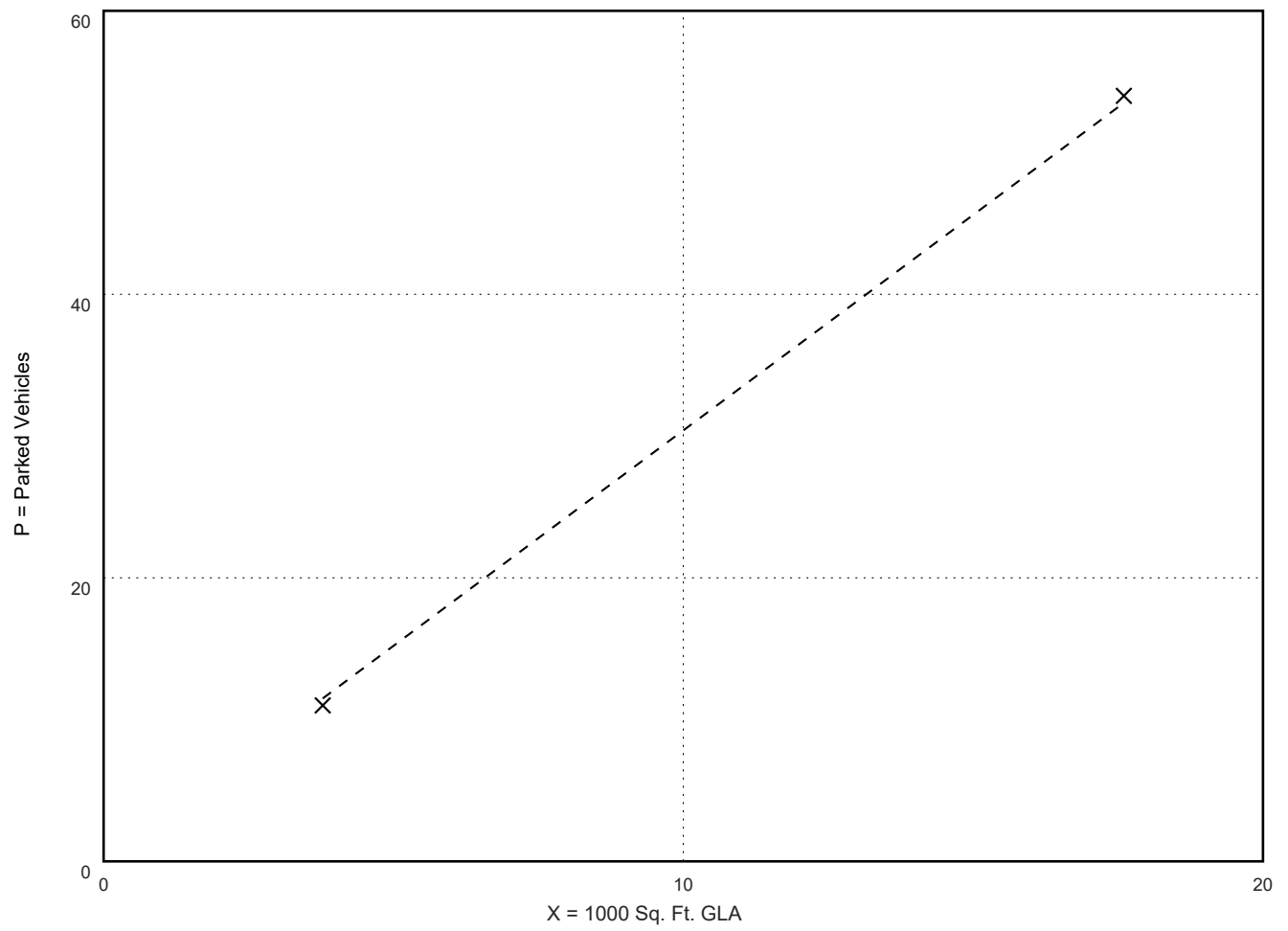
Peak Period Parking Demand vs: 1000 Sq. Ft. GLA
On a: Saturday
Setting/Location: Dense Multi-Use Urban
Number of Studies: 2
Avg. 1000 Sq. Ft. GLA: 11

Peak Period Parking Demand per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
3.04	2.91 - 3.07	*** / ***	***	*** (***)

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: *

R^2= *

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SWPPP

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Engineering
& Design

Preliminary Stormwater Pollution Prevention Plan

January 30, 2024

45 Beekman Street Mixed-Use Development
City of Beacon, Dutchess County, New York

Prepared for:

Beekman Arts Center LLC &
Bay Ridge Studios LLC
268 Main Street
Beacon, NY 12508

Prepared by:



Connor P. McCormack, P.E.
New York State
Professional Engineer
License No. 103756

Digitally signed by Connor Patrick McCormack
Date: 2024.01.29 16:55:54-04'00'

Colliers Engineering & Design
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Main: 845.564.4495
Colliersengineering.com

Project No. 23010468A

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Engineering
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*Appendix 5 – Draft Notice of Intent (NOI)
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*Appendix 7 – MS4 Acceptance Form
*Appendix 8 – NRCS Hydrologic Soil Mapping
*Appendix 9 – Construction Site Logbook
*Appendix 10 – NYSDEC Construction Stormwater Inspection Manual
*Appendix 11 – Contractor Certification Form
*Appendix 12 – NYSDEC Deep-Ripping & Decompaction Manual
*Appendix 13 – NOAA Precipitation Data
*Appendix 14 – Operation and Maintenance Plan
*Appendix 15 – Geotechnical Report
*Appendix 16 – Erosion and Sediment Control Plans
*Appendix 17 – NJ CAT Certification – First Defense

*appendix shall be included with the Final SWPPP.

EXECUTIVE SUMMARY

Project Name:	Owner Name and Address:
45 Beekman Street Mixed-Use Development City of Beacon Dutchess County New York	Beekman Arts Center LLC & Bay Ridge Studios LLC 268 Main Street Beacon, NY 12508
Project Location:	**Project Engineer and Firm:**
45 Beekman Street City of Beacon, Dutchess County , NY 12508 Tax lots: 5955-19-706012, 5954-26-689990, 5954-26-781983	Connor P. McCormack, P.E. Colliers Engineering & Design 555 Hudson Valley Avenue, Ste 101 New Windsor, NY 12553 (845) 564-4495

Figure 1: Project Location Aerial



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INTRODUCTION

The project site is in the city of Beacon, Dutchess County, New York, bounded by North Avenue (Rt 9D), Beekman Street, High Street, and Tompkins Avenue. The property is comprised of tax lots 5955-19-706012, 5954-26-689990, & 5954-26-781983 and is located within the Linkage (L) Zoning District and has a total lot area 77,717 square feet, or 1.79 acres. The existing site is partially developed with an existing art studio, driveways, and parking lot. The balance of the site is maintained by lawn and woods.

The applicant proposes to redevelop the site with two (2) 4-story mixed-use buildings with ground floor commercial space and multi-family residential units. The project will include off-street surface and garage parking facilities (83 total spaces) using existing driveway connections to Tompkins Avenue and Beekman Street. The site improvements also include water and sanitary sewer service connections to City of Beacon mains, stormwater management features necessary to support the development, and landscaping and lighting improvements.

To meet the stormwater requirements, (2) two bioretention basins and (1) one subsurface detention system is proposed on site. These stormwater features have been designed in accordance with the 2015 New York State Stormwater Management Design Manual and local municipal requirements.

Due to the size of the project, coverage under the State Pollutant Discharge Elimination System Permit (SPDES GP 0-20-001), administered by New York State Department of Environmental Conservation (NYSDEC), is required.

STORMWATER MANAGEMENT GOALS

The Stormwater Pollution Prevention Plan (SWPPP) has been prepared in compliance with the New York State Department of Environmental Conservation (NYSDEC), State Pollutant Discharge Elimination System (SPDES) and General Permit for Stormwater Discharges from Construction Activity, Permit No. GP-0-20-001 (See ***Appendix 4***). The SWPPP is a plan for controlling runoff and pollutants from a site during and after construction activities. The principal objective of this document is to comply with the SPDES Permit for construction activities by planning and implementing the following practices:

- Reduction or elimination of erosion and sediment loading to water bodies during and after construction.
- Control of the impact of stormwater runoff on the water quality of the receiving waters.
- Control of the peak rate of runoff during and after construction.
- Maintenance of stormwater controls during and after completion of construction.

Classification & Standards

The activities associated with this project are eligible for coverage under this permit. Using the General Permit guidelines for coverage, a summary of classification and requirements is provided below:

Project Type:

- *Commercial developments.*
- *Multi-family residential developments.*

Classification: ***Appendix B***, Table 2, of the GP-0-20-001 "Construction activities that require the preparation of a SWPPP that includes Post Construction Stormwater Practices".

The following guidance documents, in addition to various resources located on the NYS Department of Environmental Conservation website, were used in thepreparation of this SWPPP.

- The New York State Stormwater Management Design Manual, by New York State Department of Environmental Conservation, August 2015.
- New York Standard Specifications for Erosion and Sediment Control, by New York State Department of Environmental Conservation, November 2016.

The SWPPP is intended to be a *'living'* document and should be revised and updated whenever site conditions dictate. Any proposed modifications shall be reviewed by the owner/operator prior to incorporation in the SWPPP and implementation at the project site. The certifying engineer of this SWPPP document shall be notified of any proposed modifications to this document. Modifications shall be in accordance with the NYSDEC technical standards.

METHODOLOGY

1. The watersheds are divided into subareas, by topography, soils, and land use. A summary of the watershed areas, composite curve numbers, and travel times are shown in Table 1.
2. Rainfall depths used for this analysis were taken from NOAA Atlas 14 data for the 100, 10, and 1-year 24-hour storms as directed in the NYSSMDM.
3. Topographical mapping is taken from a survey titled "Topographic Contour Survey of the lands Beekman Arts Center, LLC & Bayridge Studios, LLC", prepared by Jonathan N. Millen, LLS; Dated 11/3/2023 and supplemented with best available mapping.
4. The required water quality volume (WQv) was calculated in accordance with Section 4.2 and Chapter 9 (redevelopment) of the NYSSMDM. This is also the required RRv as per Section 4.3 of the NYSSMDM.
5. The provided RRv was calculated with the Green Infrastructure (GI) Worksheets, Version 1.6, provided by NYSDEC. The worksheets are included in ***Appendix 3***.
6. As this project is defined as re-development with an increase in impervious areas, the study shows mitigation of the proposed impervious areas as required per the NYSSMDM.
7. The peak flows from the watersheds in the existing condition are computed using the runoff curve numbers taken from TR-55 to determine undeveloped peak runoff and runoff hydrographs at the design points. The existing peak flows are presented in the report.
8. In the post-development condition, the peak flows from the proposed development are computed using the runoff curve numbers taken from TR-55. The watersheds are adjusted for the proposed improvements and grading of the site. The runoff flows are hydraulically routed for updated travel times, diversions, and new storage structures, as necessary. The resulting proposed peak flows at the design point are presented in the report.

9. Erosion and sediment control plans and details have been included with the site plans. A full Erosion & Sediment Control Plan (plans and construction sequencing) designed in accordance with the New York State Standards and Specifications for Erosion and Sediment Control (aka the "bluebook") has been included in the ***Appendix*** of this document.
10. Maps indicating the various drainage conditions are enclosed in this report. Schematic diagrams of the flow models in the existing and proposed conditions are included in the HydroCAD output within ***Appendix 2***.
11. A Notice of Intent (NOI) for GP-0-20-001 has been included in the ***Appendix*** of this report.

DISCUSSION

Discussion of Design Points

The Project has one (1) design point, studied to mitigate stormwater peak flow and provide the required water quality requirements. The design point and drainage area were limited, wherever possible to the area of the proposed project site. The design point evaluated in this report is described as follows:

Design Point 1 is located at a storm drain at the northern corner of Beekman Street and High Street. It receives runoff from the project site, the surrounding rights-of-way, and the surrounding properties to the north and west of the project site. The runoff enters the design point via storm pipes either from other inlets on High Street or from the flared outlet section located on the project site along Beekman Street.

Table 1: Watershed Characteristics

Existing Conditions			
WS Name	**Area**	**CN**	**Tc (min)**
WS 1	4.330	76	15.4
Totals	4.330	-	-
Proposed Conditions			
WS Name	**Area**	**CN**	**Tc**
PWS-1	0.900	77	6.0
PWS-2	0.291	80	6.0
PWS-3	0.156	98	6.0
PWS-4	0.149	98	6.0
PWS-5	1.606	78	6.0
PWS-6	0.252	98	6.0
PWS-7	0.647	66	6.0
PWS-8	0.329	87	6.0
Totals	4.330	-	-

Soil Types

Soil data for this project was obtained from the NRCS Web Soil Survey (WSS) as operated by the USDA Natural Resources Conservation Service (NRCS) (See ***Appendix 8***)

One (1) soil designation is identified within the project site. The project site consists entirely of Dutchess-Cardigan complex, undulating, rocky (DwB). A further detailed description of the soil characteristics and properties can be found in ***Appendix 8*** of this report.

Hydrologic Soil Group (HSG)

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four (4) groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long duration storms. The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D and C/D). Conservatively, dual-class soil groups are considered "D" soils.

Table 2: Hydrologic soil groups

HSG	Soil (abbreviation)
B	DwB

Soil Boring and Infiltration Testing

Project specific soil testing has not yet been conducted as part of the preliminary stormwater designs. The required stormwater testing shall be conducted to confirm the existing soil conditions within the proposed basin locations. The final SWPPP and stormwater design shall be adjusted as necessary based on forthcoming soil testing.

Redevelopment.

As defined in Chapter 9 of the NYSSMDM, redevelopment activity is disturbance and reconstruction of existing impervious surfaces. This includes impervious surfaces removed within the last five (5) years. Redevelopment is distinguished from new development in that new development refers to construction on land where there had not been previous construction. Redevelopment specifically applies to constructed areas with impervious surface.

According to the Design Manual, Redevelopment of previously developed sites is encouraged from a watershed protection standpoint because it often provides an opportunity to conserve natural resources in less impacted areas by targeting development to areas with existing services and infrastructure. At the same time, redevelopment provides an opportunity to correct existing problems and reduce pollutant discharges from older developed areas that were constructed without effective stormwater pollution controls.

Site constraints associated with pre-developed project sites are another factor that makes it more difficult to provide standard stormwater practices (SMPs). The biggest constraints encountered on this site are primarily the presence of highly compacted and poorly drained soils. Chapter 9 of the NYSSMDM sets forth alternative design criteria for certain redevelopment projects because the technical standards contained elsewhere in the Manual were primarily intended for new development projects and compliance with those standards may present a challenge to some redevelopment projects.

All of the new development is located within the watershed's tributary to design point 1, therefore the net increase in impervious surface (0.28 acres) has been treated in these watersheds. A breakdown of the change in impervious areas for the project has been included below.

Table 3: Redevelopment Impervious Cover Comparison

Existing Tributary Impervious Area (Acres)	Proposed Tributary Impervious Area (Acres)	Net Change in Tributary Impervious Area (Acres)	Percent Change in Tributary Impervious Area
1.90	2.19	0.28	15%

Section 9.2.1 of the NYSSMDM details the sizing criteria for both water quantity and water quality control practices. If redevelopment results in no increase or a reduction of impervious area or changes to hydrology that increase the discharge rate, the one-, ten-, and hundred-year criteria will not be necessary. This consideration does not mean that quality or existing quantity controls may be neglected in planned designs. Since there are no existing quality or quantity controls on site, they cannot be neglected; therefore, the proposed design incorporates practices ensuring the reduction of peak flow rates for all criteria at all design points.

Because the project is considered "redevelopment with an increase in the impervious area", the water quality design will utilize two sets of design criteria. The 0.28 acres of additional impervious area will be treated as new development, and the remaining impervious area shall be treated as redevelopment. As outlined in Section 9.2.1.B.IV of the design manuals. The redevelopment water quality requirement shall be designed to treat 75% of the water quality volume from the impervious area within the LOD (1.148 Acres).

The project has been designed to treat the required redevelopment water quality Volume through and combination of SMPs with RRv capacity, and Alternative treatment practices. The treatment breakdown is provided below:

Required WQv = 25% * 1.148 acres = 0.287 acres

Proposed WQv = 0.11 acres (SMPs) + 0.31 (Alternative Practice). =0.42 acres

The design information for the redevelopment treatment has been included later in this report.

Zero-Net Increase:

The proposed storm water improvements for the site provide the required channel protection (CPv), overbank flood protection (Qp), and extreme flood protection (Qf). Peak flows have been reduced at the selected design point in the proposed condition for the 100, 10, and 1-year storms. These peak flow reductions can also be found in Table 4 below.

Table 4: Existing and Proposed Peak Flow Summary

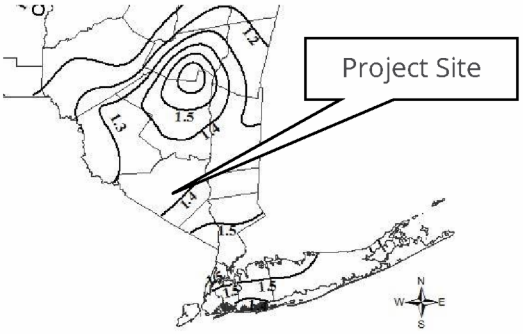
	Storm Events	Existing	Proposed	Diff.	Percent
DP 1	1	2.46	2.25	-0.21	-8.54%
	10	9.64	9.41	-0.23	-2.39%
	100	19.42	19.28	-0.14	-0.72%

*Peak Flows in Cubic Feet per second (CFS)

As is evident in the table above, attenuation of the peak flows by diversion, site planning, and the utilization of SMP's with RRv capacity have effectively reduced or maintained the peak discharge with providing the required water quality, which will be further discussed below.

Water Quality Volume (WQv):

The Water Quality Volume (WQv) is designed to improve water quality. The design captures and treats 90% of the average annual stormwater runoff volume. The WQv is directly related to the impervious cover created at a site. The 90% rainfall event value (P) used in the calculations (1.40") is shown below in the portion of Figure 4.1 from Section 4.2, pages 4-3 in the NYSSMDM.



90% Rule:

$WQ_v = [(P)(R_v)(A)] / 12$
$R_v = 0.05 + 0.009(I)$
I = Impervious Cover (Percent)
Minimum $R_v = 0.2$
P = 90% Rainfall Event Number (See Figure 4.1)
A = site area in acres

Colliers Engineering & Design determined the impervious area for each watershed in the proposed condition. The Runoff Coefficient "Rv" in the computation of Water Quality Volume WQv is dependent on the percent impervious cover. As per Section 4.2 of the NYSSMDM, 100% of the water quality volume shall be treated.

Table 5: Required Water Quality Calculation

Watershed	Area (A) Acres	90% Rainfall Event Number (P) Inches	Impervious Area treated Acres	Percent Impervious (I) %	Runoff Coefficient Rv	Required WQv Cf	Provided WQv Cf
PWS-1	0.39	1.40	0.39	100%	0.95	1,352*	1,883**

* The required WQv is based on the 0.28 Acres of new impervious area.
** The provided WQv includes treatment for 0.11 acres of redevelopment impervious area.

The total required water quality volume per NYSDEC standards is based on the proposed increase in impervious area (new development) 0.28 acres, is 1,352 or 0.031 Ac-ft. As shown in table 5 above, the current design provides the required Water quality volume.

Runoff Reduction Volume

The runoff reduction volume (RRv) is designed to reduce the stormwater volume leaving the site by capturing an amount equal to the computed water quality volume and infiltrating it onsite. However, for sites that cannot reduce runoff in an amount equal to the water quality volume, a minimum RRv is allowed if the project demonstrates acceptable limitations. The minimum RRv requirement (in acre-feet) was calculated as follows:

RRv_{min} = [(P)($\overline{R}$v)(S)(Aic)]/12 where,
I = Percent Impervious Cover (must be 100%)
P = 90% rainfall event = 1.4
$\overline{R}$v = 0.05+ [(0.009) (I)] = 0.95
S = Hydrologic Soil Group Reduction Factor = 0.40 (100% HSG B)
Aic = Total Area of new impervious cover (acres) = 0.28

$$RRv_{min} = \frac{[(P)(\overline{R}v)(S)(Aic)]}{12} = \frac{[(1.4)(0.95)(0.40)(0.28)]}{12} = 0.012 \text{ Acre-ft} = \mathbf{541\ ft^3}$$

Runoff from the new development impervious area has been treated by bioretention basins. Within these proposed practices, the entire WQv has not been reduced using standard SMPs with RRv capacity. The RRv and for each proposed practice is included in Table 6 below. Supporting calculations are provided in ***Appendix 3***.

Table 6 –RRv Volumes Provided

Watershed	Treatment Practice	RRv Provided (CF.)
PWS-1	Bioretention Basin (F-5)	796

The proposed development requires a minimum runoff reduction of 541 cf (0.012 Ac-Ft) to be reduced and total water quality to be treated for the proposed improvements. The proposed design exceeds the minimum requirement, providing an RRv of 796 cf (0.018 Ac-ft) and meets the requirement set forth by the NYSDEC requirements. This aspect of the design has been met.

Runoff Reduction Volume (RRv) through Site Planning:

The application of site planning and green infrastructure to reduce water quality volume with runoff reduction practices can either reduce the required water quality volume to be treated; or can completely account for the required water quality volume. The summary of this analysis can be found below. The combination of practices provided on site exceeds the minimum required water quality and runoff reduction for the proposed development.

The basic premise of runoff reduction is to recognize the water quality benefits of certain practices by allowing for a reduction in the water quality treatment volume. Runoff reduction is first achieved through better site design during the planning stages and has been implemented in the planning and design of this project as described in this report.

In accordance with Section 5.2 "Planning for Green Infrastructure: Reduction of Impervious Cover" of the NYSDEC Stormwater Management Design Manual, the proposed site plan has been designed to meet the planning techniques as follows:

Table 7: Green Infrastructure Site Planning

Preservation of undisturbed Areas	
Delineate and place into permanent conservation undisturbed forests, native vegetated areas, riparian corridors, wetlands, and natural terrain.	The extent of the clearing was limited to meet the user's needs. The project site is within the city and most of the site has been disturbed for construction in the past.
Preservations of Buffers	
Define, delineate and preserve naturally vegetated buffers along perennial streams, rivers, shorelines and wetlands.	Not applicable for this project.
Reduction of Clearing & Grading	

Limit clearing and grading to the minimum amount needed for roads, driveways, foundations, utilities and stormwater management facilities.	The clearing limit was minimized using maximum allowable slopes and retaining walls to meet grade where applicable.
Locating Development in Less Sensitive Areas	
Avoid sensitive resource areas such as floodplains, steep slopes, erodible soils, wetlands, mature forests and critical habitats by locating development to fit the terrain in areas that will create the least impact.	The project is classified as redevelopment and there are no environmentally sensitive areas on site.
Open Space Design	
Use clustering, conservation design or open space design to reduce impervious cover, preserve more open space and protect water resources.	Open areas are proposed on site.
Soil Restoration	
Restore the original properties and porosity of the soil by deep till and amendment with compost to reduce the generation of runoff and enhance the runoff reduction performance of post construction practices.	Compacted soils located in open areas without shallow existing utilities will be tilled in order to restore the original properties of the soil prior to seeding. (*see **Appendix 11***)
Roadway Reduction	
Minimize roadway widths and lengths to reduce site impervious area.	Roadway widths were reduced wherever possible to meet the end users needs and for emergency vehicle access.
Sidewalk Reduction	
Minimize sidewalk lengths and widths to reduce site impervious area.	Sidewalks added where needed to adequately and safely serve the pedestrian needs of the facility.
Driveway Reduction	
Minimize driveway lengths and widths to reduce site impervious area.	The proposed driveways have been minimized wherever possible.
Cul-de-Sac Reduction	
Minimize the number of cul-de-sacs and incorporate landscaped areas to reduce their impervious cover.	N/A no Cul-de-Sacs are proposed.
Building Footprint Reduction	

Reduce the impervious footprint of residences and commercial buildings by using alternate or taller buildings while maintaining the same floor to area ratio.	The building were designed to meet the potential end user's needs.
Parking Reduction	
Reduce imperviousness on parking lots by eliminating unneeded spaces, providing compact car spaces and efficient parking lanes, minimizing stall dimensions, using porous pavement surfaces in overflow parking areas, and using multi-storied parking decks where appropriate.	The parking spaces were limited to what is required by local municipal code and the end users needs.

Green Infrastructure Techniques (GITs):

After considering the reductions through Site Planning mentioned above, RRv remains to be treated through GITs and/or Standard SMPs. Chapter 5 of the NYSSMDM outlines the various Green Infrastructure Techniques that can be implemented on-site to achieve runoff reduction. The GI Worksheets included in the ***Appendix*** of this report provide the calculations for the Green Infrastructure Techniques chosen to treat the Runoff Reduction Volume for this project. Below is a brief description of each Green Infrastructure Technique along with a discussion regarding the feasibility of each technique with respect to this project.

Table 8: Green Infrastructure Feasibility

Conservation of Natural Areas	
Retain the pre-development hydrologic and water quality characteristics of undisturbed natural areas, stream and wetland buffers by restoring and/or permanently conserving these areas on a site.	There are no natural areas on the project site. it is located at the center of the City of beacon and is surrounded on all sides with development.
Sheetflow to Riparian Buffers or Filter Strips	
Undisturbed natural areas such as forested conservation areas and stream buffers or vegetated filter strips and riparian buffers can be used to treat and control stormwater runoff from some areas of a development project.	Not applicable for this project.
Vegetated Open Swale	
The natural drainage paths, or properly designed vegetated channels, can be used instead of constructing underground storm sewers or concrete open channels to increase time of	Vegetated open swales were used to divert clean runoff around the site, towards the design point.

concentration, reduce the peak discharge, and provide infiltration.	
Tree Planting/Tree Box	
Plant or conserve trees to reduce stormwater runoff, increase nutrient uptake, and provide bank stabilization. Trees can be used for applications such as landscaping, stormwater management practice areas, conservation areas and erosion and sediment control.	Tree planting has been proposed through the site but has not been quantified as a stormwater mitigation.
Disconnection of Rooftop Runoff	
Direct runoff from residential rooftop areas and upland overland runoff flow to designated pervious areas to reduce runoff volumes and rates.	Based on the site of the proposed building this is not a recomendded pratice.
Stream Daylighting for Redevelopment Projects	
Stream Daylight previously-culverted/piped streams to restore natural habitats, better attenuate runoff by increasing the storage size, promoting infiltration, and help reduce pollutant loads.	This strategy is not applicable to the project.
Rain Garden	
Manage and treat small volumes of stormwater runoff using a conditioned planting soil bed and planting materials to filter runoff stored within a shallow depression.	There are a few green locations proposed throughout the development but rain gardens have not been proposed on site.
Green Roof	
Capture runoff by a layer of vegetation and soil installed on top of a conventional flat or sloped roof. The rooftop vegetation allows evaporation and evapotranspiration processes to reduce volume and discharge rate of runoff entering conveyance system.	The structural design and use of the proposed buildings do not allow for this technique.
Stormwater Planter	
Small landscaped stormwater treatment devices that can be designed as infiltration or filtering practices. Stormwater planters use soil infiltration and biogeochemical processes to decrease stormwater quantity and improve quality.	Landscaping in green areas and planted beds are proposed throughout the development, but planters have not been proposed for treatment. No credit has been taken in the SWPPP.

Rain Tank or Cistern	
Capture and store stormwater runoff to be used for irrigation systems or filtered and reused for non-contact activities.	This practice has not been used for the proposed development.
Porous Pavement	
Pervious types of pavements that provide an alternative to conventional paved surfaces, designed to infiltrate rainfall through the surface, thereby reducing stormwater runoff from a site and providing some pollutant uptake in the underlying soils.	Due to maintenance concerns and the redevelopment classification of the site, this practice was not proposed.

The bioretention basins account for the runoff reduction as required. The site has been designed to meet the required water quality requirements without accounting for the pretreatment volume tributary to the proposed basins.

Soil restoration efforts, including mechanical decompaction and compost amendment in accordance with Section 5.1.6 and Table 5.3 of the NYSSMDM, are proposed for areas to be disturbed for improvements that will not be impervious at the final buildout.

Refer to Tables 7 and 8 above for the decision-making matrices utilized here. The design for the project utilized standard SMPs with RRv capacity to attain the required minimum runoff reduction volume and water quality for new construction and redevelopment, respectively. NYSDEC Green Infrastructure (GI) worksheets can be found in ***Appendix 3*** summarizing calculations.

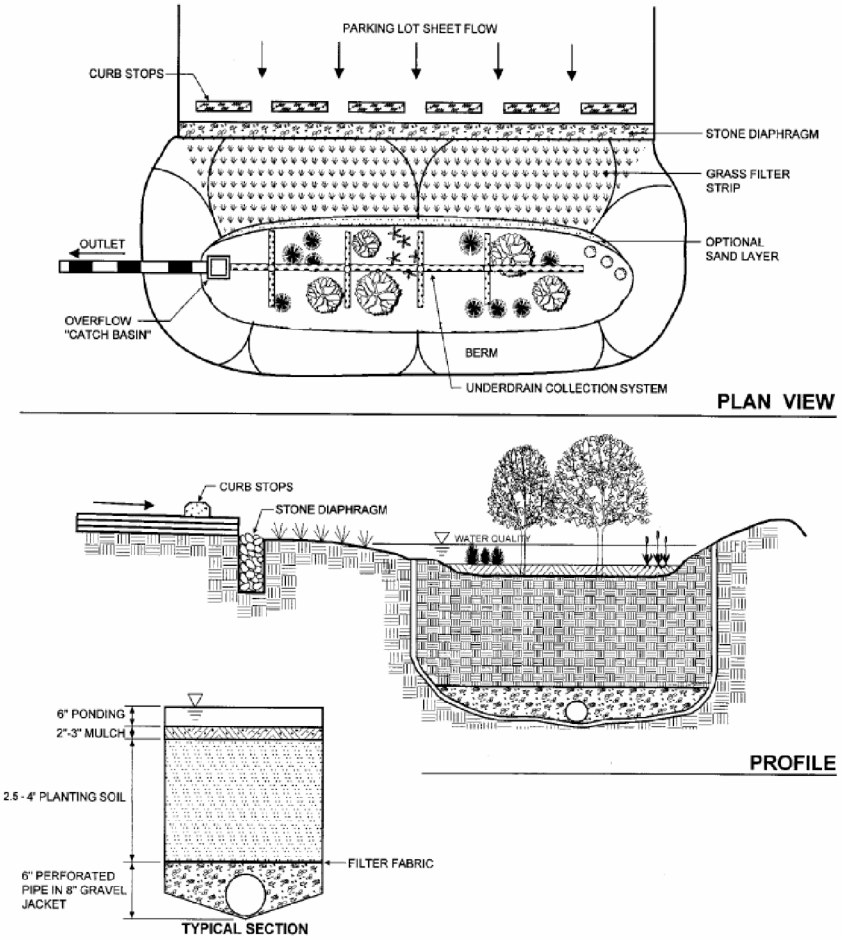
Bioretention Basins with Underdrain (No Infiltration):

The proposed development causes an increase in impervious cover. As such the runoff must be mitigated for water quality. One of the SMPs utilized for the proposed development is the use of bioretention with a proposed underdrain (F-5). Runoff from the development is proposed to be routed to a bioretention basin to provide runoff reduction capacity as well as water quality treatment volume. The basins are proposed with a 3-inch mulch layer, 2.5 feet of soil media, and a 12-inch drainage layer with a 6-inch underdrain which ultimately connects to an outlet control structure and discharges downstream to provide WQv. Bioretention soils shall meet the design criteria outlined in ***Appendix H*** of the NYSSMDM; soil deep ripping and de-compaction shall be in accordance with the NYSDEC guidelines found in the ***Appendix***.

The sizing calculation for the bioretention system was completed in accordance with the design requirements set forth in Section 6.4.4 of the NYSSMDM. Flush curbs with rip rap leading to grass filter strips have been provided in all locations for pre-treatment of the sheet flow from the paved areas.

The stage/storage information of the bioretention areas can be found in the HydroCAD output within the ***Appendix*** of this report. The NYSDEC GI worksheet for runoff reduction and water quality treatment can be found in the ***Appendix*** for RRv capacity calculations (See NYSDEC GI worksheet). A summary of the water quality provided in these facilities can be found in Table 6.

Figure 6.19 Bioretention (F-5)



Hydrodynamic Separator (Swirl Chamber):

The applicant proposes to install a hydrodynamic separator to provide water quality for the redevelopment portions of the site. Hydrodynamic separators are devices that move water in a circular, centrifugal manner to accelerate the separation and deposition of primary sediment from the water. They are suitable for the removal of coarse particles, oils, and fuels over small drainage areas. The NYSDEC refers to the New Jersey Department of Environmental Protection for a list of Stormwater Manufactured Treatment Devices which have received Interim Certification (included in the Appendix). One of the products on the list is the Hydro International First Defense unit.

Sizing of the First Defense system (an alternative stormwater practice) requires the application of a "rate-based" sizing approach for water quality treatment. In the "rate-based" approach, the device should be sized to treat the peak rate of runoff from the WQv storm; utilizing the WQv storm precipitation depth, the peak runoff for each tributary area can then be determined, and the associated devices sized appropriately. HydroCAD was used to determine the water quality flow rate for treatment sizing of the First Defense system. The table below lists the water quality storm event, its associated flowrate for the treatment structure, the tributary catchments, and the appropriately sized First Defense system capacity which provides in excess of the required flow, for the location shown on the plans

Table 1. First Defense® High Capacity Design Criteria.

First Defense® High Capacity Model Number	Diameter	Typical TSS Treatment Flow Rates			Peak Online Flow Rate	Maximum Pipe Diameter[1]	Oil Storage Capacity	Typical Sediment Storage Capacity[2]	Minimum Distance from Outlet Invert to Top of Rim[3]	Standard Distance from Outlet Invert to Sump Floor
		NJDEP Certified	106µm	230µm						
	(ft / m)	(cfs / L/s)	(cfs / L/s)	(cfs / L/s)	(cfs / L/s)	(in / mm)	(gal / L)	(yd^3 / m^3)	(ft / m)	(ft / m)
FD-3HC	3 / 0.9	0.84 / 23.7	0.3 / 8.77	0.53 / 15.0	15 / 424	18 / 457	125 / 473	0.4 / 0.3	2.0 - 3.5 / 0.6 - 1.0	3.71 / 1.13
FD-4HC	4 / 1.2	1.50 / 42.4	0.7 / 20	1.2 / 34	18 / 510	24 / 600	191 / 723	0.7 / 0.5	2.3 - 3.9 / 0.7 - 1.2	4.97 / 1.5
FD-5HC	5 / 1.5	2.34 / 66.2	1.3 / 37.9	2.2 / 62.2	20 / 566	24 / 609	300 / 1135	1.1 / .84	2.5 - 4.5 / 0.7 - 1.3	5.19 / 1.5
FD-6HC	6 / 1.8	3.38 / 95.7	2.2 / 63	3.8 / 108	32 / 906	30 / 750	496 / 1,878	1.6 / 1.2	3.0 - 5.1 / 0.9 - 1.6	5.97 / 1.8
FD-8HC	8 / 2.4	6.00 / 169.9	5.1 / 144	8.6 / 243	50 / 1,415	48 / 1219	1120 / 4239	2.8 / 2.1	3.0 - 6.0 / 0.9 -1.8	7.40 / 2.2

[1]Contact Hydro International when larger pipe sizes are required.
[2]Contact Hydro International when custom sediment storage capacity is required.
[3]Minimum distance for models depends on pipe diameter.

The First Defense treatment system has the capacity of bypassing high flow rates internally as well as controlling flow through the treatment chamber so as to avoid wash-out of previously captured pollutants. The HydroCAD output can be found in the Appendix of this report. Specifications for the First Defense Systems can also be found in the appendix of this report along with certification from NYSDEC that it is an accepted proprietary device. The NJCAT testing certification is also included within the Appendix.

Table 9: Swirl Chamber Sizing Calculations

Proposed First Defense System	90% Rainfall Event Number (P) Inches	Tributary Catchment Areas (WS-#)	Required Water Quality Flow, cfs	Hydro International First Defense Model	Treatment Capacity, cfs
S-14 (4' Dia)	1.4	PDA-1C	0.4	FD-4HC	1.50

Stormwater Conveyance & Pipe Capacity

The storm pipes and structures shall be designed to convey flows from the 25-year storm event per New York State standards. Drainage areas to each drainage structures shall be delineated,

and the land uses within the drainage area were calculated. The design information, along with the proposed pipe sizes, material, slopes and inlet capacities shall be entered into the HydroFlow Storm sewer program to analyze the capacity of the storm conveyance system. It should be noted that this program uses the rational method for calculation while the HydroCAD program uses TR-55. Pipe sizing design information will be included with the final SWPPP.

EROSION & SEDIMENT CONTROL

General Erosion Control Plan:

Construction operations shall be carried out in such a manner that erosion will be controlled and sediment migration minimized. Federal, State, and Local laws concerning pollution reduction will be followed. The control practices indicated in the attached Erosion & Sediment Control Plans shall be installed and used on this project.

In the event control practices not contained within the attached Erosion & Sediment Control Plans are required due to unforeseen/unknown existing conditions this SWPPP document contains applicable Erosion and Sediment Control details in ***Appendix 16*** as a reference. Details in ***Appendix 16*** are considered, as needed, and are not part of the construction documents for bidding purposes.

The list of measures and practices below are contained in the attached Erosion and Sediment Control Plans and shall be installed and maintained per the most current edition of the New York Standard Specifications for Erosion and Sediment Control Handbook. All erosion control measures implemented shall be in accordance with the construction sequence schedule as described in Section VIII of this narrative.

Temporary Measures

- *Silt Fence* – Silt fence shall be placed at a minimum along the toe of all fill areas or any location where surface sheet flow could be expected in accordance with temporary soil erosion and sediment control plans serving to reduce runoff velocity and effect deposition of transported sediment load. Where silt fence ends, the end shall turn and run perpendicular to contours for a length of ten (10) feet, or for a difference in elevation of two (2) feet, whichever comes first.
- *Mulching* – Mulching of all disturbed surfaces will be mandatory. Hydroseeding with mulch only mixes will be the preferred method.
- *Stabilized Construction Access* - A stabilized pad of aggregate underlain with geotextile located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk, or parking area. The purpose of stabilized construction access is to reduce or eliminate the tracking of sediment onto public rights-of-way or streets.

The access shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way or streets. This may require periodic top dressing with additional aggregate. All sediment spilled, dropped, or washed onto public rights-of-way must be removed immediately.

When necessary, wheels must be cleaned to remove sediment prior to entrance onto public right-of-ways. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches, or watercourses.

- *Concrete Washout Station* - A temporary concrete washout station is to be used near the entrance to the site. The station will have a depth of 24 inches and shall be a minimum of 10 feet by 10 feet. The station shall be lined with a 10mil waterproof plastic membrane. Tools or equipment that were used for concrete work will be cleaned here before leaving the site.

Permanent Measures

- *Topsoil, Seed & Mulch* – Final vegetative stabilization shall be used at all locations where the ground has been disturbed and impervious covers are not specified. Mulch shall be applied with, or immediately after seeding.
- *Rock outlet protection-* Stone riprap is to be placed at the outlet end of the culverts beneath the flared end section to slow down the flow of the runoff and reduce erosion.
- *-site grading and retaining walls* – The site grading has been designed to reduce the steep slopes on site, reducing the possibility of erosion due to runoff.

Maintenance and Inspection of Measures

All temporary and permanent soil erosion and sediment measures shall be maintained by the contractor during the life of the project. The contractor shall have a *trained contractor,* as defined in the GP-0-20-001 (See ***Appendix 4***), on site at all times. The *trained contractor* shall be responsible for the day-to-day construction and maintenance of all erosion and sediment control measures.

All temporary measures (silt fence, inlet protection, etc.) and permanent measures (landscaping) shall be inspected by the *Qualified Inspector* every seven (7) calendar days. The *Qualified Inspector* role and inspection requirements are outlined in Part IV.C of the GP-0-20-001 (See ***Appendix 4***). All inspections are required to be completed within one calendar day. Any comments, suggestions or corrective actions the *Qualified Inspector* notes shall be addressed by the contractor within 24 hours of the inspection.

Construction Sequence:

The construction sequence for the proposed development will be as follows:

- Schedule a pre-construction meeting at least 1 week prior to any construction site disturbance or equipment staging. At a minimum, the pre-construction meeting shall consist of the Cities Representatives including the Engineer as well as Contractors, Project Managers and Foreman.
- Install construction entrance.
- Stake limits of disturbance and orange construction fence for wetland protection.
- Install perimeter silt fencing on downhill areas as shown on plan.
- Install sediment ponds. Install temporary swales to direct all open soil area disturbance to sediment ponds, as necessary. Locations and size of the erosions and sediment control practices are noted on the plan. these may vary depending on the contractor's schedule and

approach but 3,600 cf of storage must be provided at a minimum per acre of upstream disturbance. Sediment traps shall be installed in accordance with the plans and details. Sediment traps and basins shall be sized in accordance with the New York standards and specifications for erosion and sediment control manual.

- Rough grade the site to allow for the construction of the northern retaining wall. Once complete, the proposed driveway/road and building footprint shall be rough graded. The building foundation and wall shall be installed to stabilize the center of the phase 1 construction as soon as practicable.
- Disturbed soils shall be temporarily stabilized as soon as practical. Materials stored in stockpiles shall be cordoned off with a silt fence per the appropriate specifications and details. The operator shall initiate stabilization measures as soon as practical in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than (14) days after the construction activity in that portion of the site has temporarily or permanently ceased.
- Utilities shall be installed. (non-pressure utilities shall be installed prior to watermain)
- Construct roads, drives, buildings, parking areas and install drainage systems.
- Topsoil/hay/seed lawn areas.
- When upstream drainage areas have been stabilized, the bioretention media, plantings and mulch can be installed and the sediment ponds can be removed. The phase 1 construction

- The project site must meet final stabilization criteria prior to removing all erosion and sediment control devices and closing out the project. Litter and construction debris shall be removed as practical throughout the life of the project.

    - *Final Stabilization* means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock riprap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

- Upon final stabilization being met, the Contractor shall clear drainage pipes and structures of any sediment which may have accumulated. Additional erosion control measures shall be installed, as may be necessary, required and/or requested by authorities, to prevent the incidental discharge of silt laden runoff from entering a water course or a drainage system. The general permit for stormwater discharges from construction activities states that it is unlawful for any person to cause or contribute to a violation of water quality standards.

- Additional erosion control measures shall be installed, as may be necessary, required and/or requested by authorities, to prevent the incidental discharge of silt laden runoff from entering a water course or a drainage system. The general permit for stormwater discharges from construction activities states that it is unlawful for any person to cause or contribute to a violation of water quality standards.

For additional, general Erosion and Sediment Control notes including seeding, please refer to the Erosion and Sediment Control Plans.

Good Housekeeping

Good housekeeping practices are inexpensive, relatively easy to implement, and are often effective in preventing stormwater contamination. Specific activities that should be completed by the contractor are listed below:

Spill Inventory

The materials or substances listed below are expected to be present on-site during construction:

- Concrete
- Fertilizers
- Piping
- Paints (enamel & latex)
- Treated and non-treated wood
- Seed
- Tar
- Petroleum-based products
- Reinforcing steel
- Cleaning solvents
- Masonry block
- Paving materials

Material Management Practices

The following are the material management practices that shall be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff:

- Products shall be kept in original containers unless they are not resealable.
- Original labels and material safety data sheets (MSDS) shall be retained; they contain important product information.
- An effort shall be made to store only enough products required to do the job.
- All materials stored onsite shall be stored in a neat, orderly manner in their appropriate containers, and if possible, under a roof or other enclosure and/or on non-porous blacktop.
- Products shall be kept in their original containers with the original manufacturer's label.
- Substances shall not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, all a product shall be used up before disposing of the container.
- Manufacturer's recommendations for proper use and disposal shall be followed.
- The contractor's site superintendent shall inspect daily to ensure proper use and disposal of materials on site.

Spill Control Practices

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices shall be followed for spill prevention and cleanup.

- Spills, of any size, of toxic or hazardous material and/or petroleum products shall be reported to the NYSDEC and Central Hudson's Environmental Affairs division.
- Manufacturer's recommended methods for spill cleanup shall be clearly posted and site personnel shall be made aware of the procedures and the locations of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup shall be kept in the material storage area onsite. Equipment and materials shall include but not be limited to brooms, dust pans, mops, rags, gloves, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills shall be cleaned up immediately after discovery.
- The spill area shall be kept well ventilated, and personnel shall wear appropriate PPE to prevent injury from contact with a hazardous substance.
- The spill prevention plan shall be adjusted to include measures to prevent toxic or hazardous material spills from recurring and how to clean up the spill. A description of the spill, what caused it, and the cleanup measures shall also be included.

The contractor's site superintendent is responsible for the day-to-day site operations and shall be the spill prevention and cleanup coordinator.

Product Specific Practices

The following product specific practices shall be followed onsite.

- Petroleum Products – All onsite vehicles shall be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products shall be stored in tightly sealed containers that are clearly labeled. Any asphalt substances used on site shall be applied according to manufacturer's recommendations.
- Fertilizers – Fertilizers shall be applied only in the minimum amounts recommended by the manufacturer. Use only fertilizers that have five (5) or fewer parts phosphorous. Once applied, fertilizers shall be worked into the soil to limit exposure to stormwater. Storage shall be in a covered shed. The contents of any partially used bags of fertilizer shall be transferred to a sealable plastic bin to avoid spills.
- Paints – All containers shall be tightly sealed and stored when not required for use. Excess paint shall not be discharged to the storm sewer system but shall be properly disposed of according to the manufacturer's instructions or state and local regulations.
- Concrete Trucks – Concrete trucks shall not be allowed to wash out or discharge surplus concrete or drum wash water on the site, unless in approved clean-out areas.
- Waste Disposal – All waste materials shall be collected and stored in a securely lidded metal dumpster rented from a licensed solid waste management company. The dumpster shall meet all local and any State solid waste management regulations. All trash and construction

debris from the site shall be deposited in the dumpster. The dumpster shall be emptied as necessary, and the trash shall be hauled to a NYSDEC permitted landfill. No construction waste materials shall be buried onsite. All personnel shall be instructed regarding the correct procedure for waste disposal.

- Hazardous Waste – All hazardous waste materials shall be disposed of in a manner specified by local or State regulations or the manufacturer. Site personnel shall be instructed in these practices.
- Sanitary Waste – All sanitary waste shall be collected from the portable units by a licensed sanitary waste management contractor, as required by local regulation and as required to protect public health and safety.
- Recyclable Waste – All recyclable waste (cardboard, wood, etc.) shall be collected and recycled on a weekly schedule.

Responsible Parties

Implementation of SWPPP

The owner/operator is responsible for implementing the provisions of the SWPPP and ensuring that the appropriate contractors and subcontractors on the site provide certification in accordance with the provisions of the GP-0-20-001.

The owner/operator is also responsible for having *Trained Contractor* and *Qualified Inspector* inspect the active construction site in accordance with section 6.3 of this report and all provisions for inspections defined in the GP-0-20-001, (See ***Appendix 10)*** A *Trained Contractor* cannot conduct *Qualified Inspector* site inspections unless they meet the *Qualified Inspector* qualifications listed in appendices of the GP-0-20-001.

Inspection Requirements

The owner/operator is responsible for implementing inspections of all erosion and sediment control measures. To do so, the owner/operator shall have a *Qualified Inspector* inspect the site in accordance with the guidelines of Part IV of the GP-0-20-001. A sample inspection template is provided in this document (See ***Appendix 9***).

The owner/operator shall maintain a record of all inspection reports in a site logbook. The site logbook shall be kept on site and be made available to the permitting authority upon request. The owner/operator shall also retain a copy of this SWPPP document at the construction site during the life of the project.

End of Project – Termination of Permit

Final Inspection

Prior to filing the Notice of Termination (NOT), or at the end of the permit term, the owner/operator shall have a Qualified Inspector perform a final site inspection. The inspector shall certify that the site has undergone final stabilization using either vegetative or structural stabilization methods. Final stabilization means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of 80% has been established on all unpaved areas and areas not covered by permanent structures.

Notice of Termination (NOT)

When the site has been finally stabilized, the owner/operator must submit a Notice of Termination (NOT) form to terminate coverage under SPDES General Permit GP-0-20-001. The permittee must identify all the permanent stormwater management structures that have been constructed. In addition, a manual describing the operation and maintenance practices that will be necessary for the structures(s) to function as designed after the site is stabilized must be developed and in place. The permittee must also certify that the permanent structure(s) have been constructed in conformance with this document. A copy of NOT is provided in this document (see ***Appendix 6***).

Record Keeping

The owner/operator shall retain copies of SWPPP, any reports submitted in conjunction with this permit, and records of all data used to complete the NOI & NOT for a period of at least five (5) years from the date that the site is finally stabilized.

SUMMARY OF PROPOSED STORMWATER IMPROVEMENTS

The proposed project falls under the New York State definition of redevelopment with an increase in impervious area, requiring coverage under the General permit. The site runoff has been attenuated for peak flows in the peak design storms. The proposed development has been designed to treat the required water quality through SMP's with RRv capacity, and Alternative practices. The design utilizes DEC approved practices that help maintain the existing hydrology.

CONCLUSION

As the storm water pollution prevention plan meets the water quality requirements for a new and redevelopment portion of the project, and meets peak flow mitigation to the applicable standards, there should be no adverse impacts due to storm water, on-site or off-site, as a result of the proposed site improvements.

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APPENDIX 1

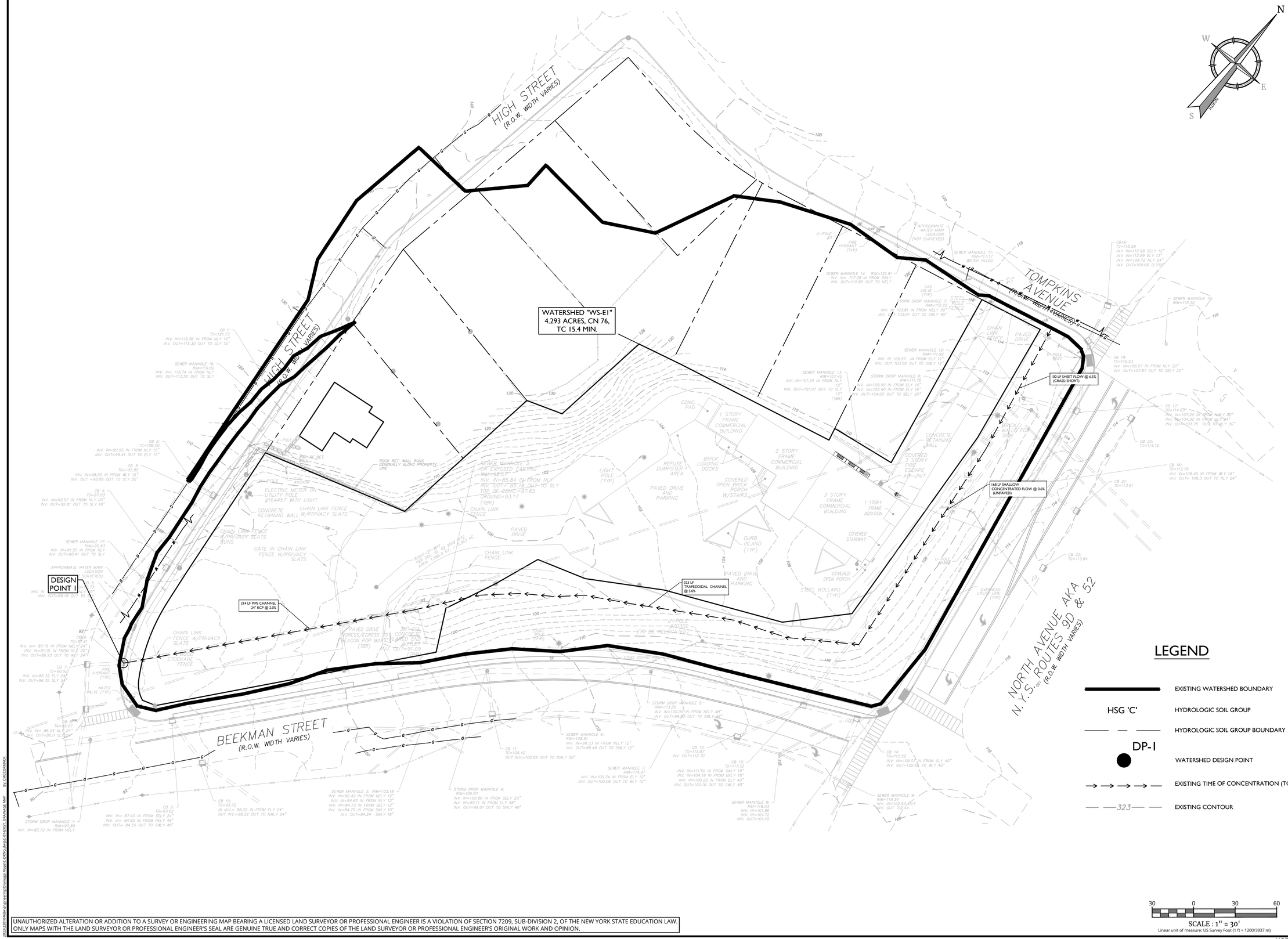
WATERSHED MAPS

APPENDIX 2

HYDROCAD MODEL OUTPUT

APPENDIX 3

NYSDEC GREEN INFRASTRUCTURE WORKSHEETS



LEGEND

- EXISTING WATERSHED BOUNDARY
- HSG 'C' — HYDROLOGIC SOIL GROUP
- HYDROLOGIC SOIL GROUP BOUNDARY
- DP-1 — WATERSHED DESIGN POINT
- EXISTING TIME OF CONCENTRATION (TC)
- 323 — EXISTING CONTOUR

30 0 30 60

SCALE : 1" = 30'

Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

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2023\23010468A\Engineering\Drainage Maps\C-DRNG.dwg|C-01 EXIST. DRAINAGE MAP By:CMCCORMACK

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

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REV	DATE	DRAWN BY	DESCRIPTION

WATERSHED MAP

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	1/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-DRNG

SHEET TITLE: EXISTING DRAINAGE MAP

SHEET NUMBER: 01 of 02



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REV	DATE	DRAWN BY	DESCRIPTION

WATERSHED MAP

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
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CITY OF BEACON
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SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	1/30/2024	KAS	CPM

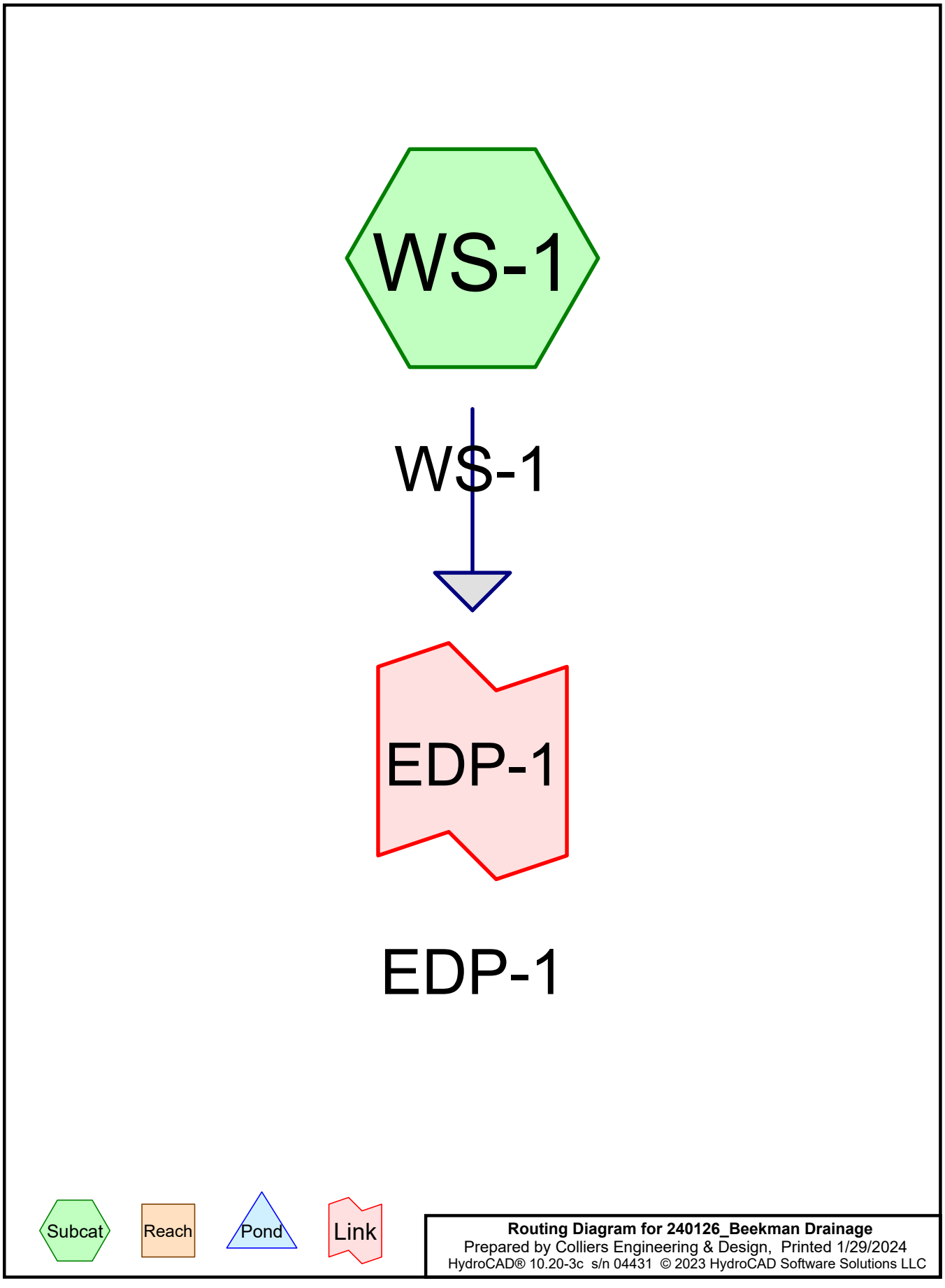
PROJECT NUMBER:	DRAWING NAME:
23010468A	C-DRNG

SHEET TITLE:
PROPOSED DRAINAGE MAP

SHEET NUMBER:
02 of 02

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

2023\23010468A\Engineering\Drainage Maps\C-DRNG.dwg|C-02-PROP. DRAINAGE MAP By: CMCCORMACK



Routing Diagram for 240126_Beekman Drainage
Prepared by Colliers Engineering & Design, Printed 1/29/2024
HydroCAD® 10.20-3c s/n 04431 © 2023 HydroCAD Software Solutions LLC

Summary for Subcatchment WS-1: WS-1

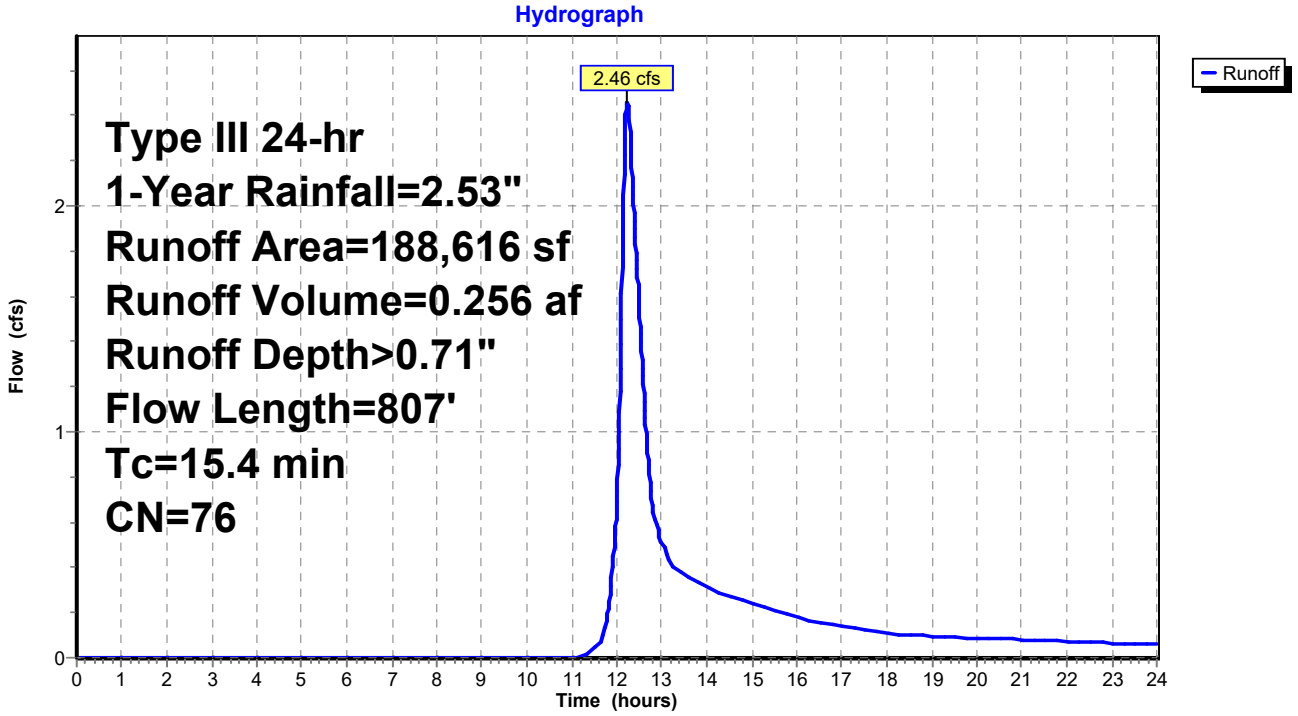
Runoff = 2.46 cfs @ 12.23 hrs, Volume= 0.256 af, Depth> 0.71"
Routed to Link EDP-1 : EDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (sf)	CN	Description
82,914	98	Paved parking, HSG B
41,960	55	Woods, Good, HSG B
63,742	61	>75% Grass cover, Good, HSG B
188,616	76	Weighted Average
105,702		56.04% Pervious Area
82,914		43.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.0650	0.27		**Sheet Flow, grass: short** Grass: Short n= 0.150 P2= 3.15"
2.2	168	0.0060	1.25		**Shallow Concentrated Flow, unpaved** Unpaved Kv= 16.1 fps
6.7	325	0.0500	0.81	0.19	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.10' Z= 5.0 & 2.0 '/' Top.W=2.70' n= 0.080 Earth, long dense weeds
0.3	214	0.0200	11.03	34.66	**Pipe Channel, RCP_Round 24"** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
15.4	807	Total			

Subcatchment WS-1: WS-1

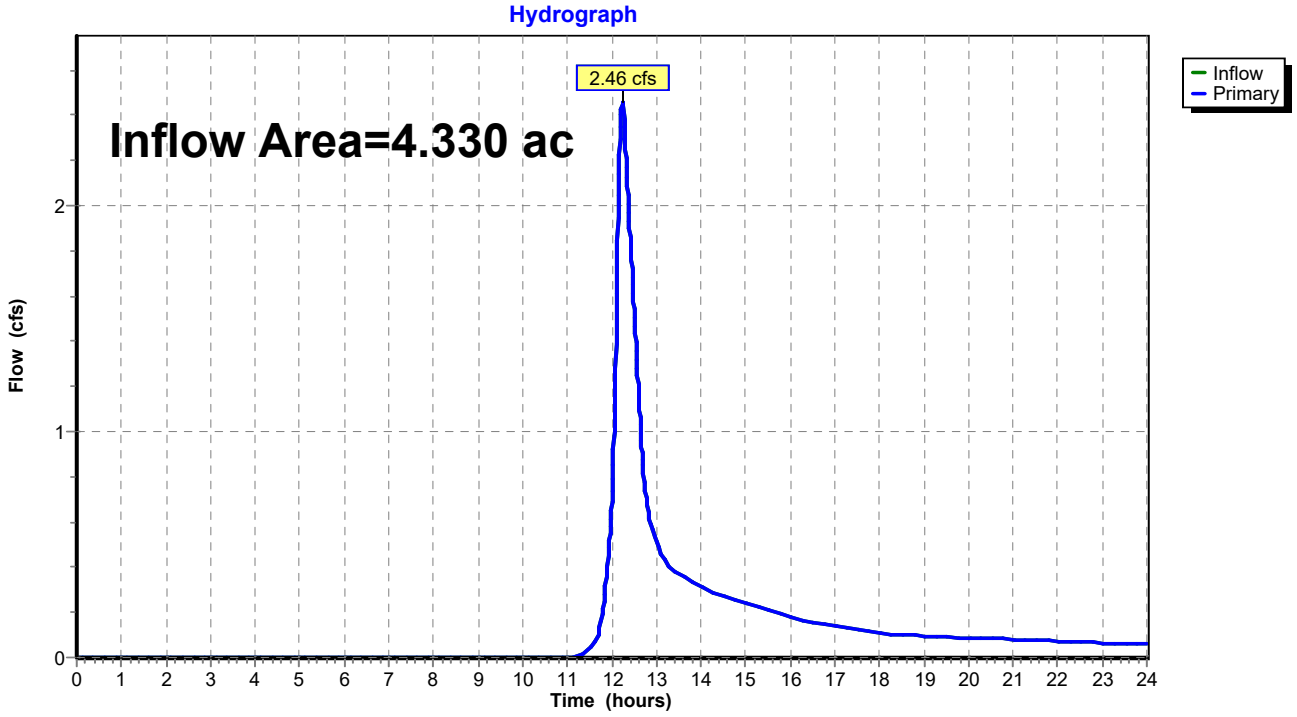


Summary for Link EDP-1: EDP-1

Inflow Area = 4.330 ac, 43.96% Impervious, Inflow Depth > 0.71" for 1-Year event
Inflow = 2.46 cfs @ 12.23 hrs, Volume= 0.256 af
Primary = 2.46 cfs @ 12.23 hrs, Volume= 0.256 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link EDP-1: EDP-1



Summary for Subcatchment WS-1: WS-1

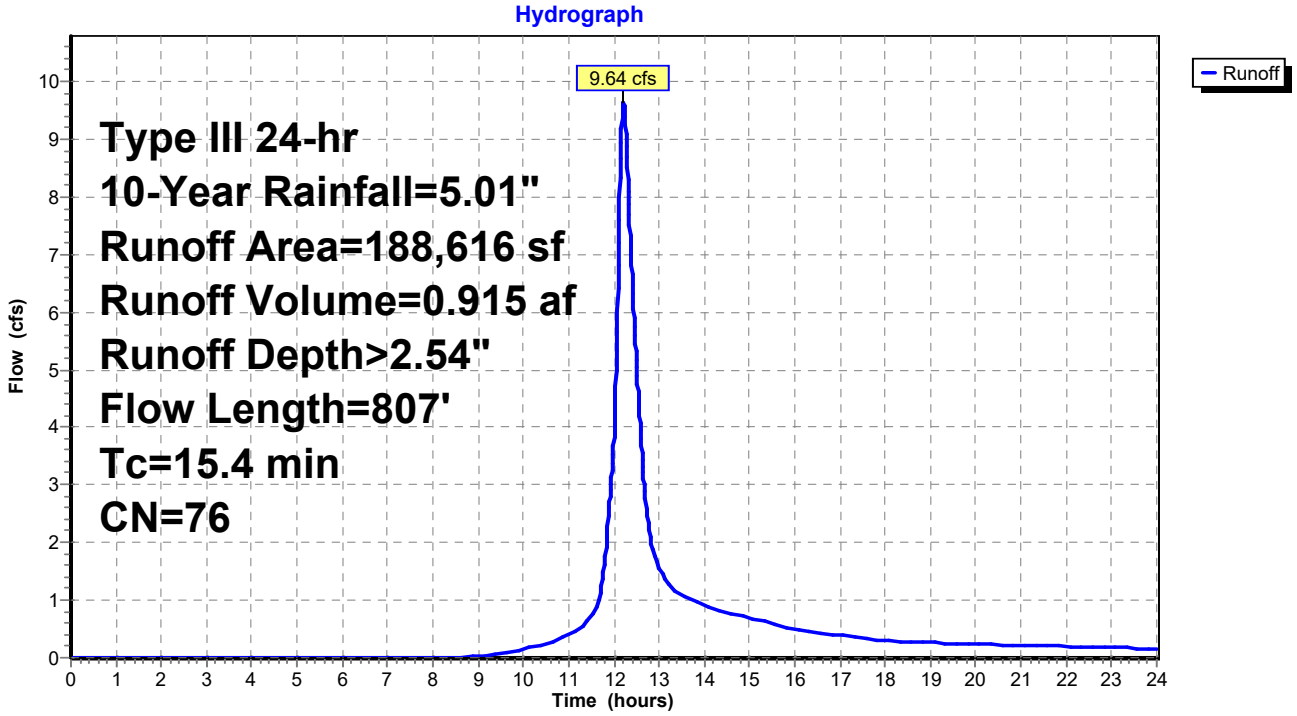
Runoff = 9.64 cfs @ 12.21 hrs, Volume= 0.915 af, Depth> 2.54"
Routed to Link EDP-1 : EDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (sf)	CN	Description
82,914	98	Paved parking, HSG B
41,960	55	Woods, Good, HSG B
63,742	61	>75% Grass cover, Good, HSG B
188,616	76	Weighted Average
105,702		56.04% Pervious Area
82,914		43.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.0650	0.27		**Sheet Flow, grass: short** Grass: Short n= 0.150 P2= 3.15"
2.2	168	0.0060	1.25		**Shallow Concentrated Flow, unpaved** Unpaved Kv= 16.1 fps
6.7	325	0.0500	0.81	0.19	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.10' Z= 5.0 & 2.0 '/' Top.W=2.70' n= 0.080 Earth, long dense weeds
0.3	214	0.0200	11.03	34.66	**Pipe Channel, RCP_Round 24"** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
15.4	807	Total			

Subcatchment WS-1: WS-1

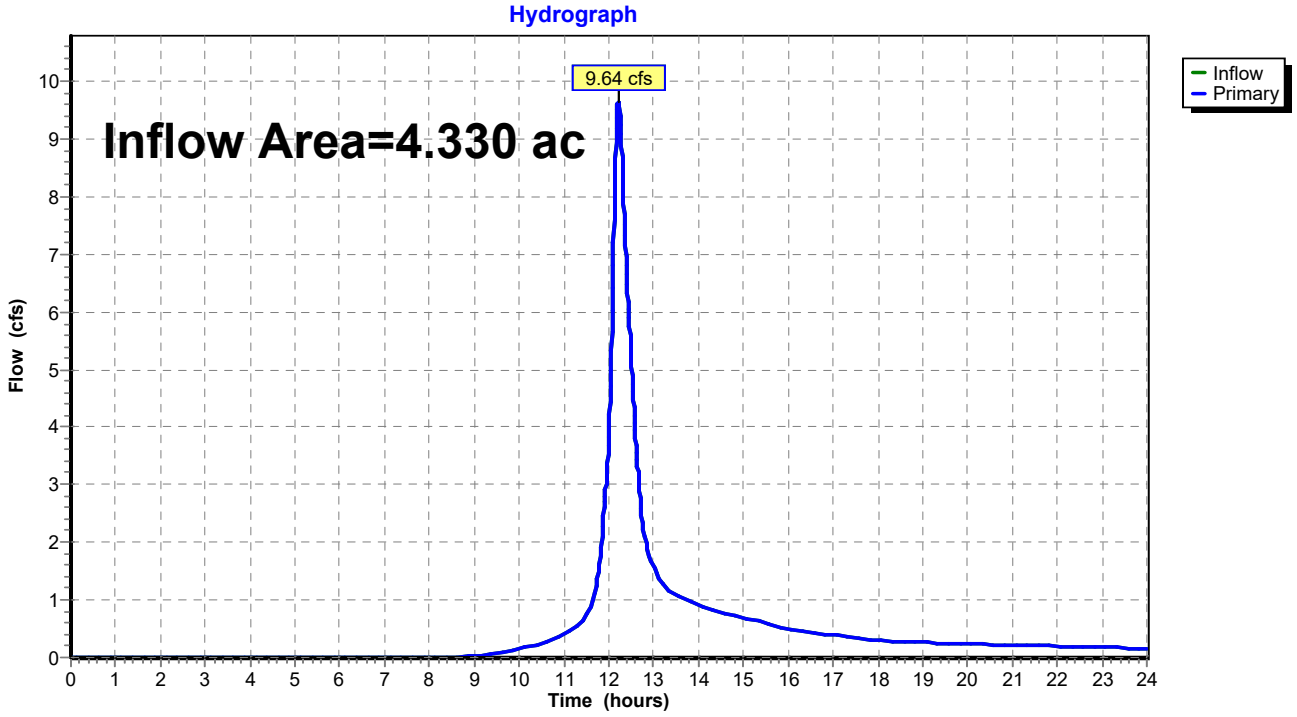


Summary for Link EDP-1: EDP-1

Inflow Area = 4.330 ac, 43.96% Impervious, Inflow Depth > 2.54" for 10-Year event
Inflow = 9.64 cfs @ 12.21 hrs, Volume= 0.915 af
Primary = 9.64 cfs @ 12.21 hrs, Volume= 0.915 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link EDP-1: EDP-1



Summary for Subcatchment WS-1: WS-1

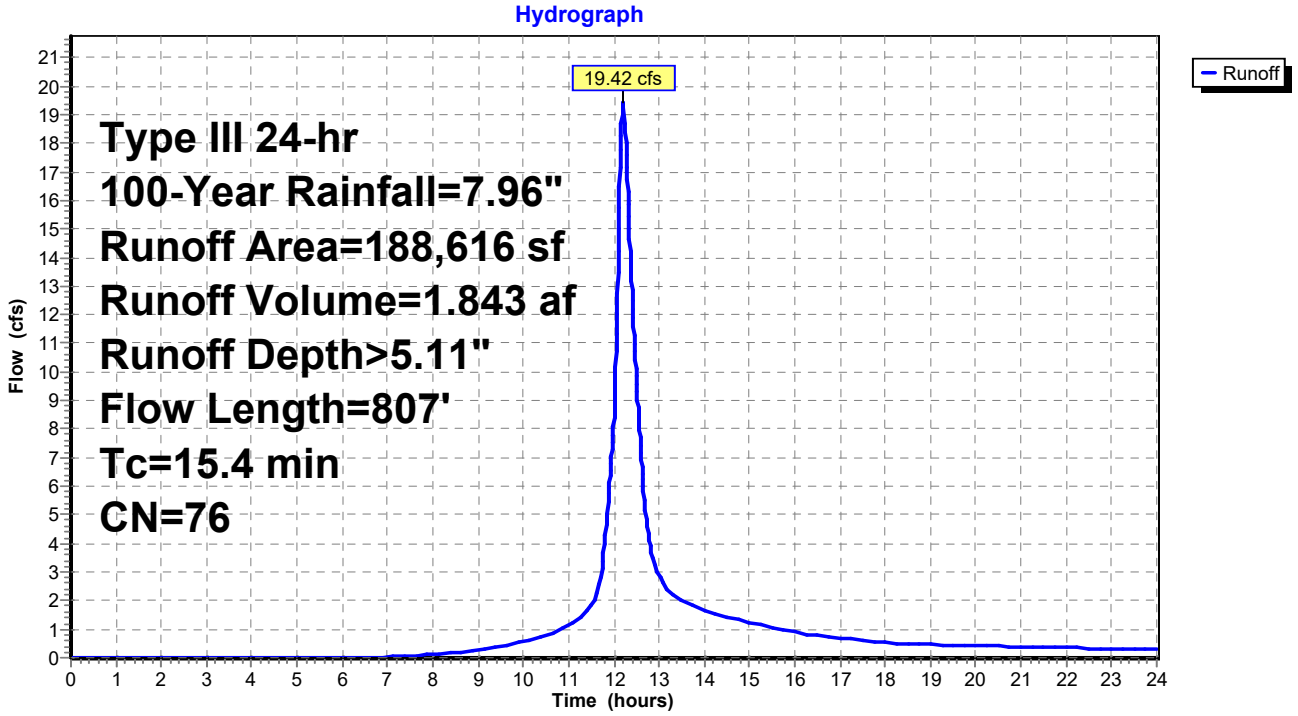
Runoff = 19.42 cfs @ 12.20 hrs, Volume= 1.843 af, Depth> 5.11"
Routed to Link EDP-1 : EDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (sf)	CN	Description
82,914	98	Paved parking, HSG B
41,960	55	Woods, Good, HSG B
63,742	61	>75% Grass cover, Good, HSG B
188,616	76	Weighted Average
105,702		56.04% Pervious Area
82,914		43.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.0650	0.27		**Sheet Flow, grass: short** Grass: Short n= 0.150 P2= 3.15"
2.2	168	0.0060	1.25		**Shallow Concentrated Flow, unpaved** Unpaved Kv= 16.1 fps
6.7	325	0.0500	0.81	0.19	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.10' Z= 5.0 & 2.0 '/' Top.W=2.70' n= 0.080 Earth, long dense weeds
0.3	214	0.0200	11.03	34.66	**Pipe Channel, RCP_Round 24"** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
15.4	807	Total			

Subcatchment WS-1: WS-1

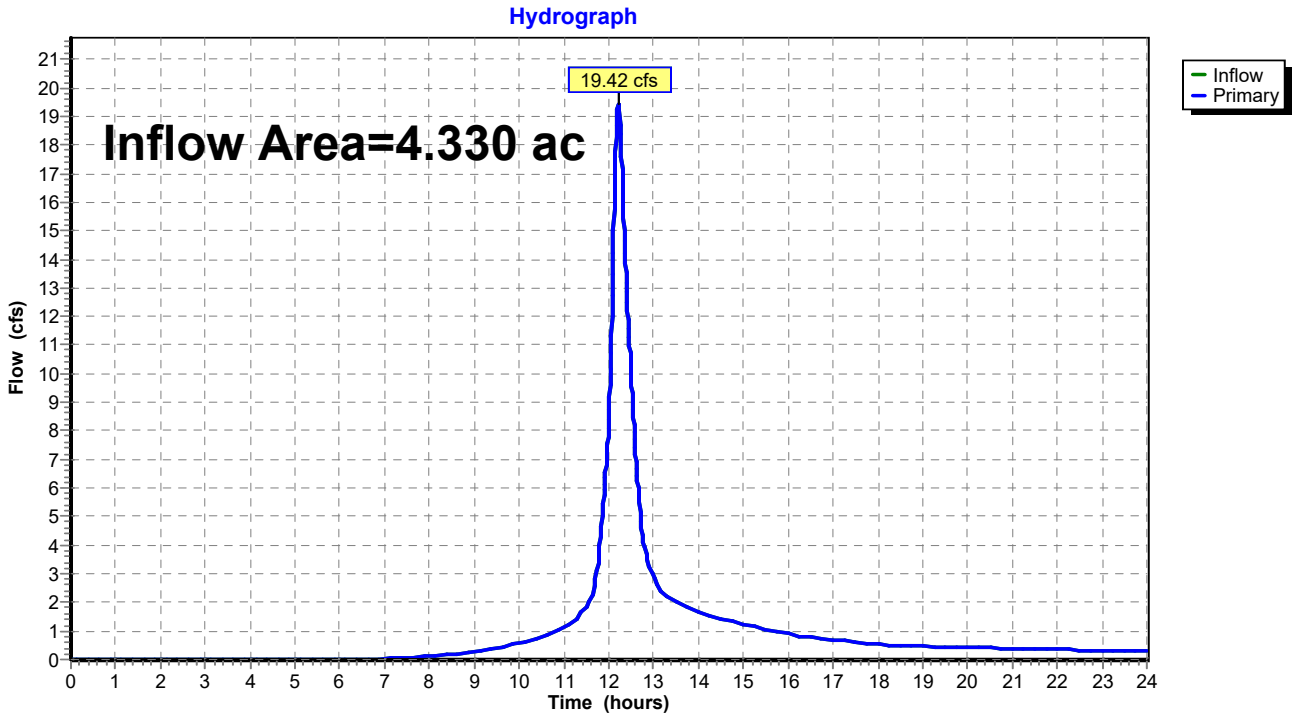


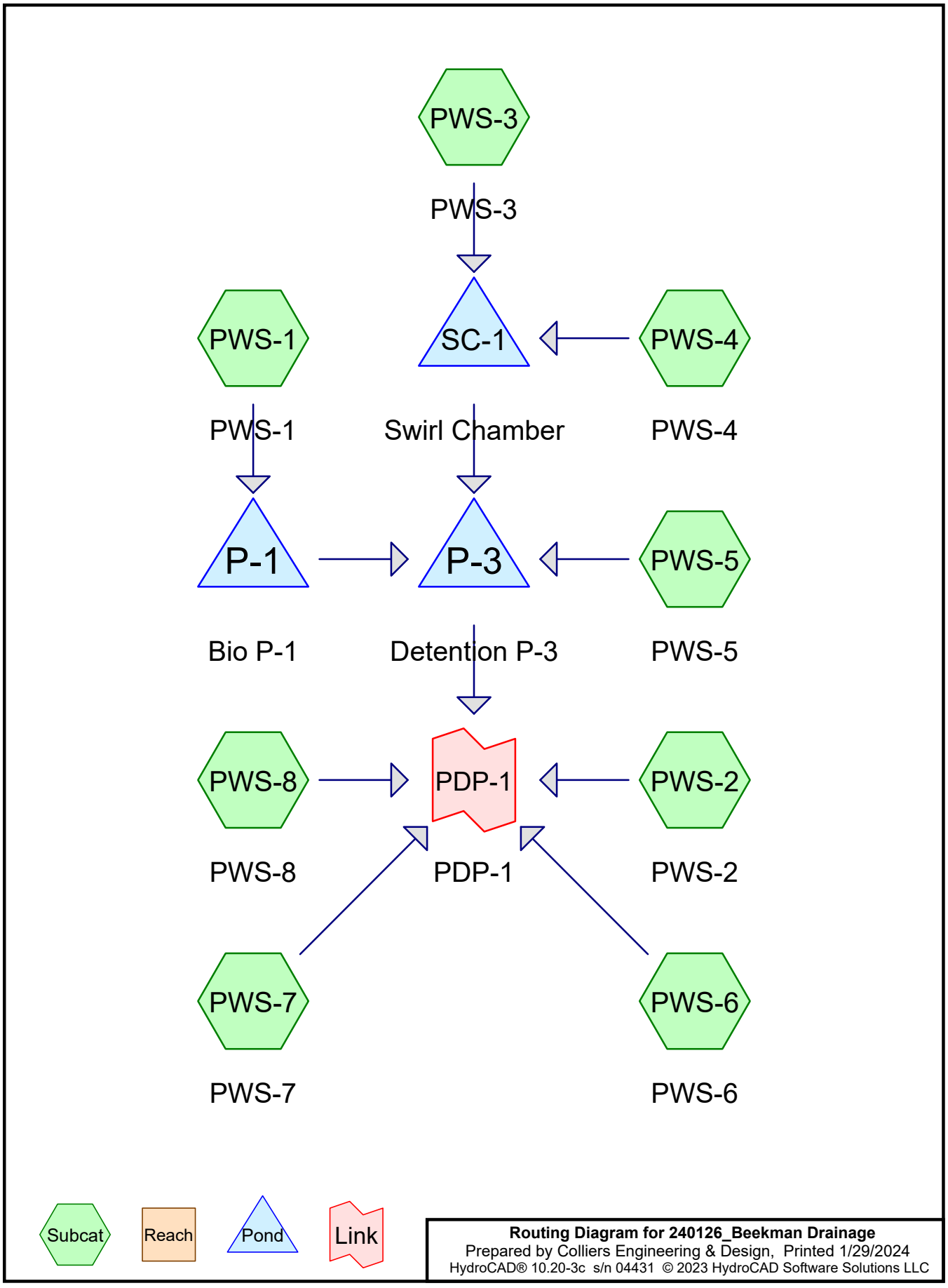
Summary for Link EDP-1: EDP-1

Inflow Area = 4.330 ac, 43.96% Impervious, Inflow Depth > 5.11" for 100-Year event
Inflow = 19.42 cfs @ 12.20 hrs, Volume= 1.843 af
Primary = 19.42 cfs @ 12.20 hrs, Volume= 1.843 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link EDP-1: EDP-1




PWS-3
PWS-3
PWS-1
SC-1
PWS-4
PWS-1
Swirl Chamber
PWS-4
P-1
P-3
PWS-5
Bio P-1
Detention P-3
PWS-5
PWS-8
PDP-1
PWS-2
PWS-8
PDP-1
PWS-2
PWS-7
PWS-6
PWS-7
PWS-6
Subcat
Reach
Pond
Link
Routing Diagram for 240126_Beekman Drainage
Prepared by Colliers Engineering & Design, Printed 1/29/2024
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Summary for Subcatchment PWS-1: PWS-1

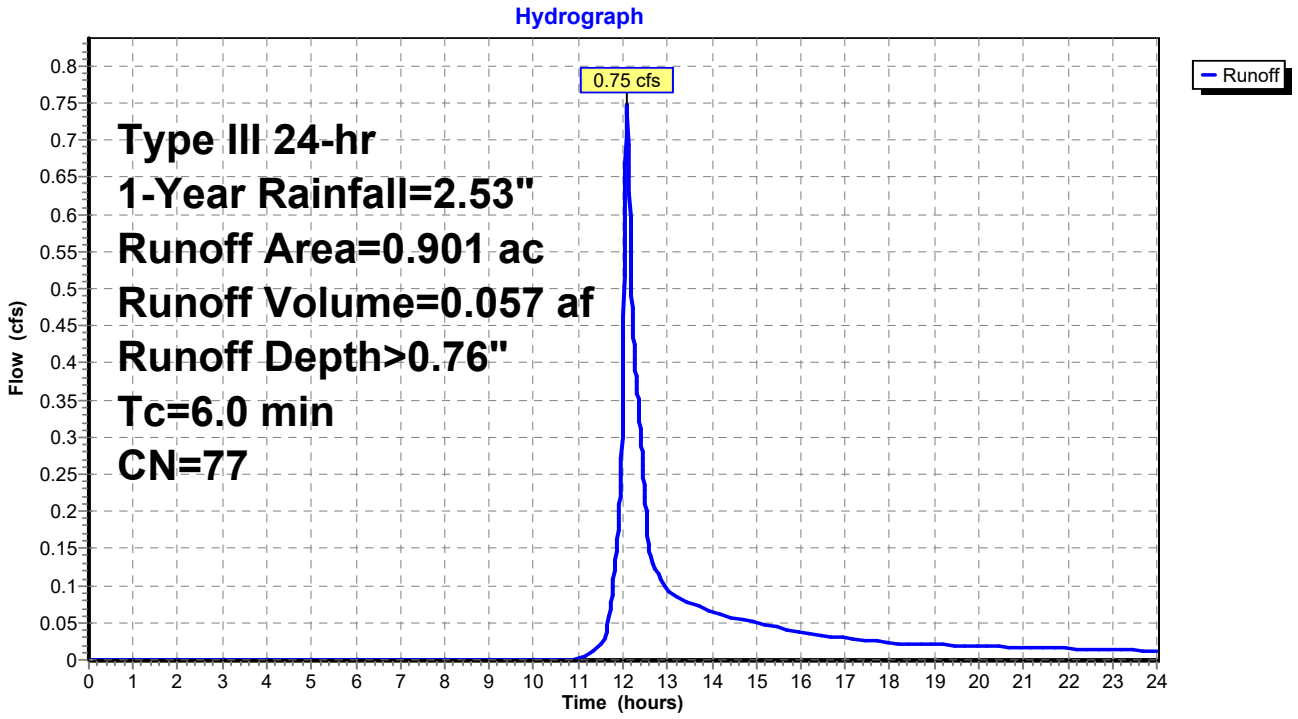
Runoff = 0.75 cfs @ 12.10 hrs, Volume= 0.057 af, Depth> 0.76"
Routed to Pond P-1 : Bio P-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (ac)	CN	Description
0.393	98	Paved parking, HSG B
0.448	61	>75% Grass cover, Good, HSG B
0.060	55	Woods, Good, HSG B
0.901	77	Weighted Average
0.508		56.38% Pervious Area
0.393		43.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-1: PWS-1



Summary for Subcatchment PWS-2: PWS-2

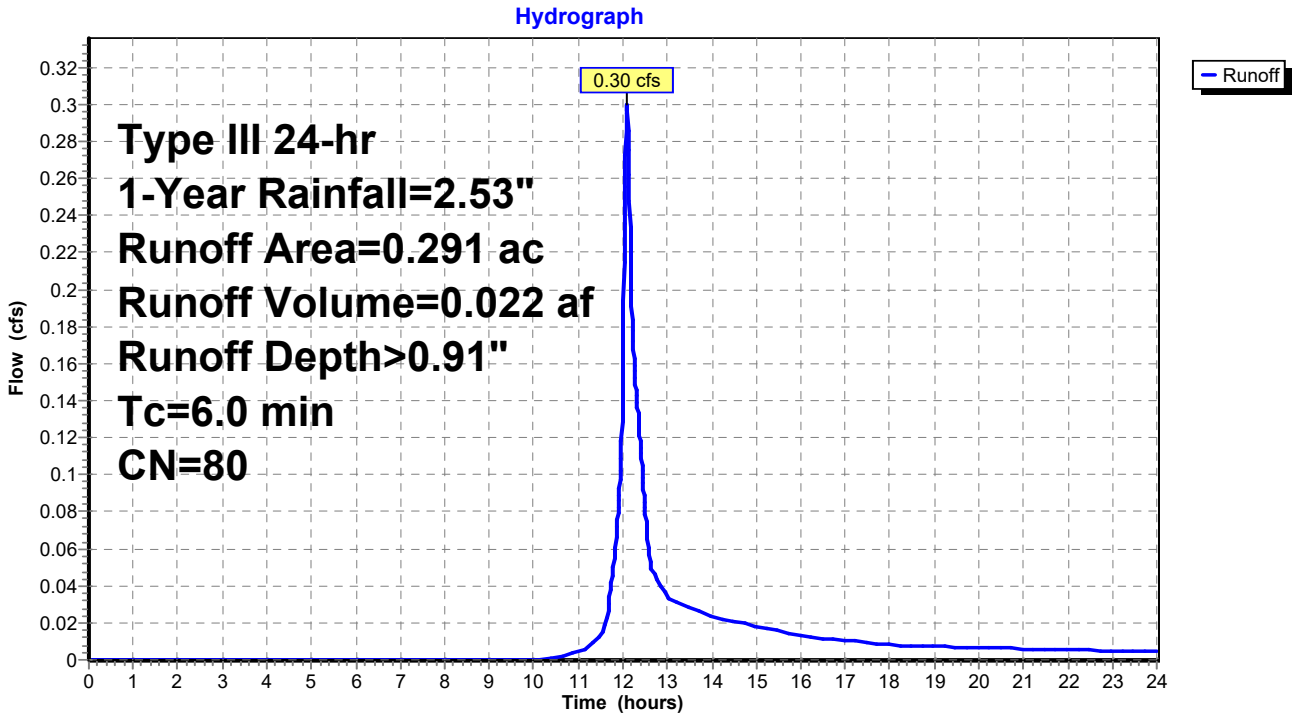
Runoff = 0.30 cfs @ 12.09 hrs, Volume= 0.022 af, Depth> 0.91"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (ac)	CN	Description
0.150	98	Paved parking, HSG B
0.115	61	>75% Grass cover, Good, HSG B
0.026	55	Woods, Good, HSG B
0.291	80	Weighted Average
0.141		48.45% Pervious Area
0.150		51.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-2: PWS-2



Summary for Subcatchment PWS-3: PWS-3

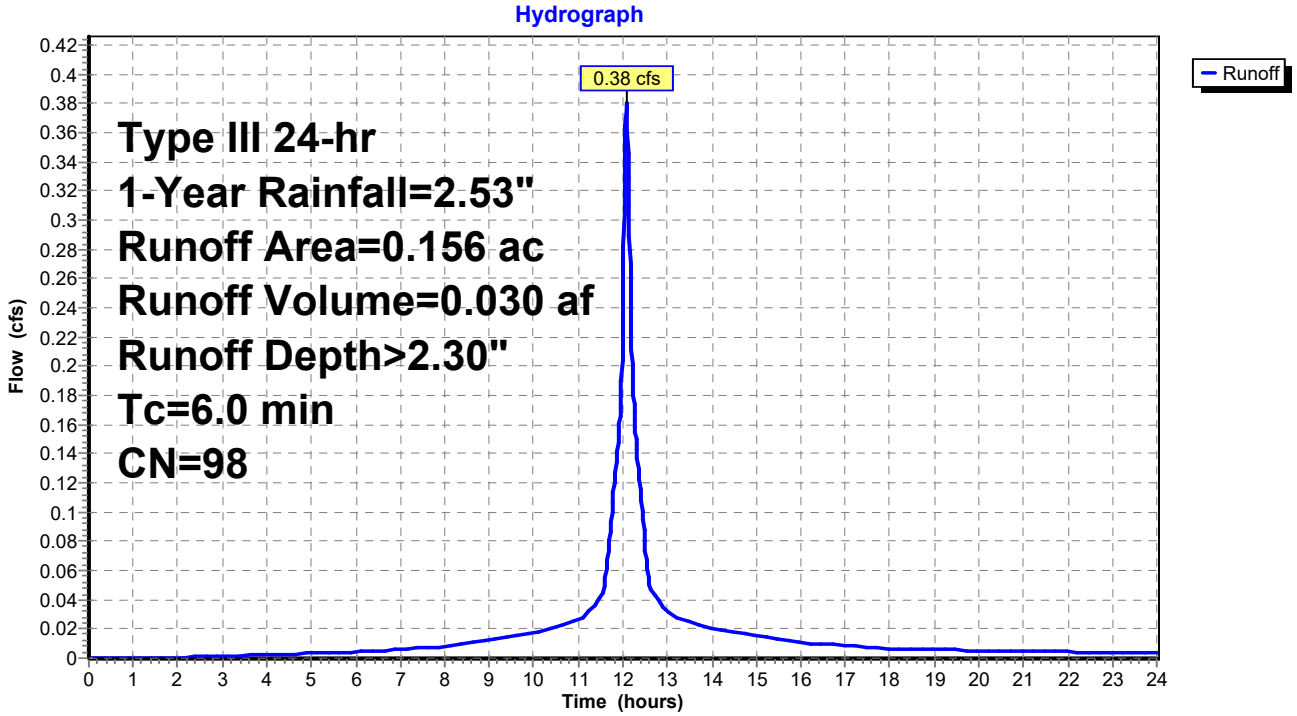
Runoff = 0.38 cfs @ 12.08 hrs, Volume= 0.030 af, Depth> 2.30"
Routed to Pond SC-1 : Swirl Chamber

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (ac)	CN	Description
0.156	98	Roofs, HSG B
0.156		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-3: PWS-3



Summary for Subcatchment PWS-4: PWS-4

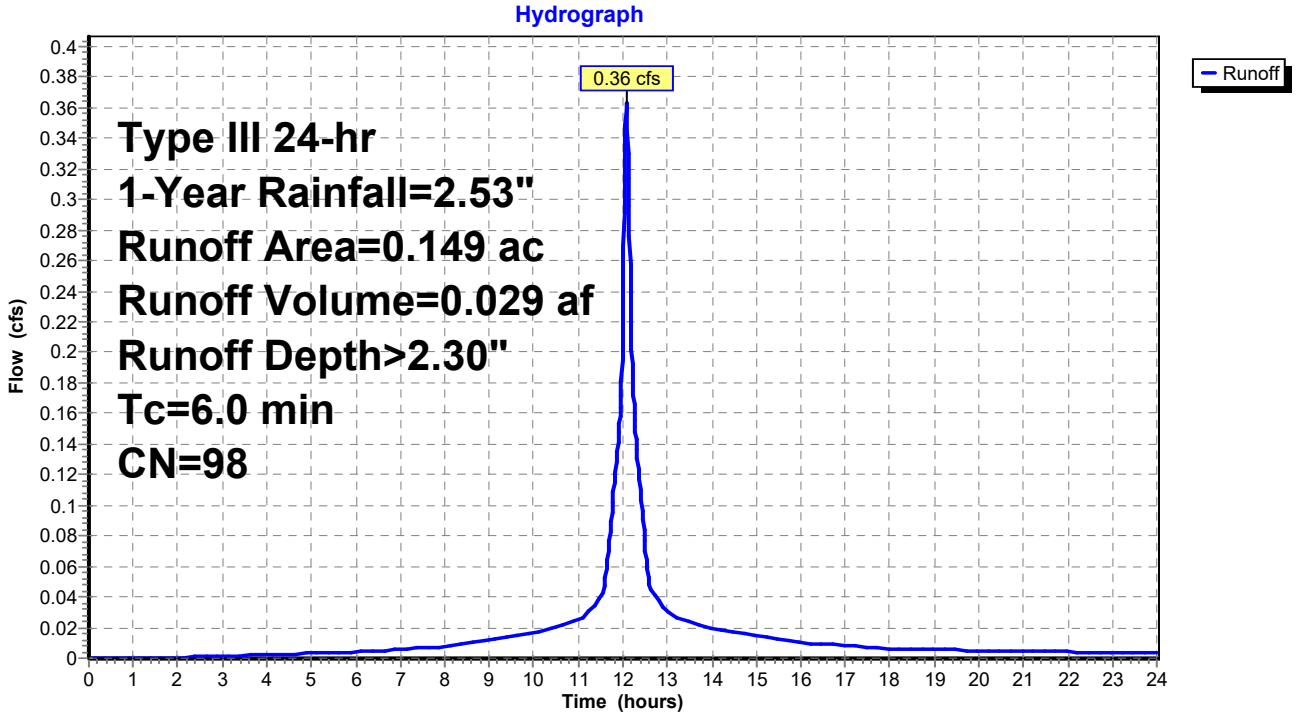
Runoff = 0.36 cfs @ 12.08 hrs, Volume= 0.029 af, Depth> 2.30"
Routed to Pond SC-1 : Swirl Chamber

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (ac)	CN	Description
0.149	98	Roofs, HSG B
0.149		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-4: PWS-4



Summary for Subcatchment PWS-5: PWS-5

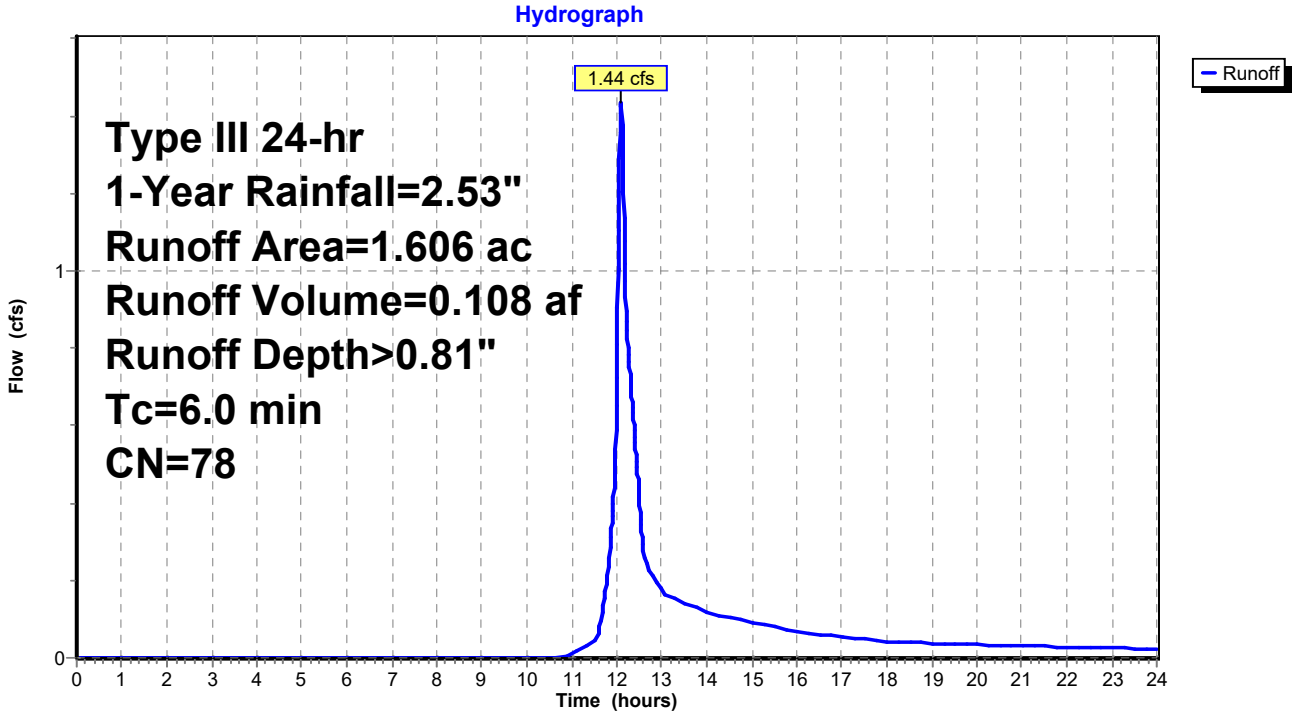
Runoff = 1.44 cfs @ 12.10 hrs, Volume= 0.108 af, Depth> 0.81"
Routed to Pond P-3 : Detention P-3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (ac)	CN	Description
0.772	98	Paved parking, HSG B
0.662	61	>75% Grass cover, Good, HSG B
0.172	55	Woods, Good, HSG B
1.606	78	Weighted Average
0.834		51.93% Pervious Area
0.772		48.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-5: PWS-5



Summary for Subcatchment PWS-6: PWS-6

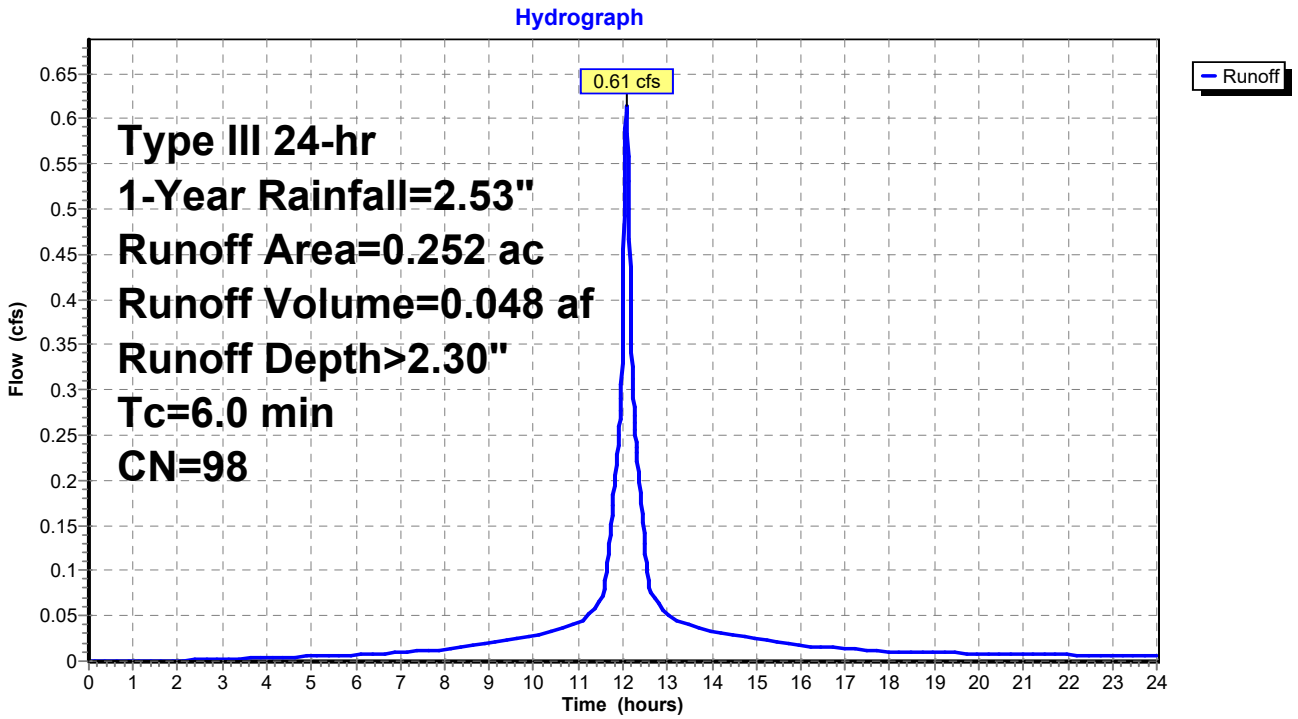
Runoff = 0.61 cfs @ 12.08 hrs, Volume= 0.048 af, Depth> 2.30"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (ac)	CN	Description
0.252	98	Roofs, HSG B
0.252		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-6: PWS-6



Summary for Subcatchment PWS-7: PWS-7

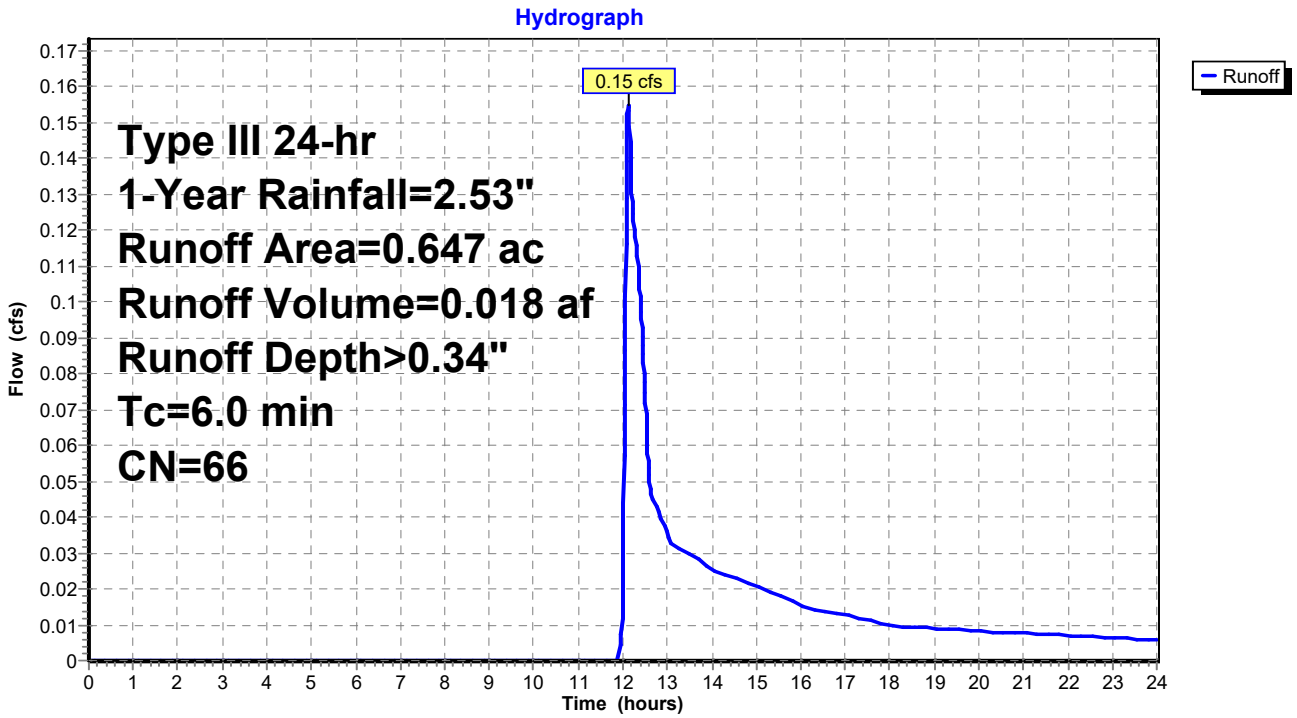
Runoff = 0.15 cfs @ 12.12 hrs, Volume= 0.018 af, Depth> 0.34"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (ac)	CN	Description
0.080	98	Paved parking, HSG B
0.567	61	>75% Grass cover, Good, HSG B
0.647	66	Weighted Average
0.567		87.64% Pervious Area
0.080		12.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-7: PWS-7



Summary for Subcatchment PWS-8: PWS-8

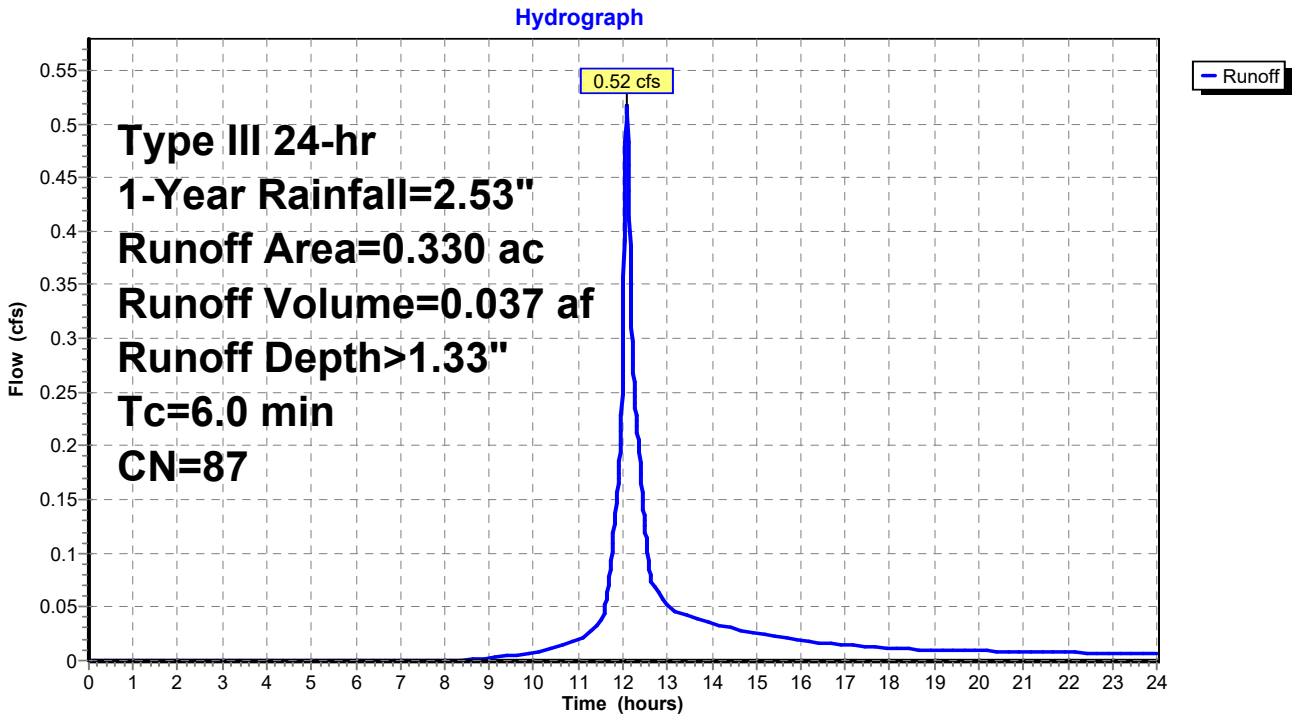
Runoff = 0.52 cfs @ 12.09 hrs, Volume= 0.037 af, Depth> 1.33"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (ac)	CN	Description
0.235	98	Paved parking, HSG B
0.095	61	>75% Grass cover, Good, HSG B
0.330	87	Weighted Average
0.095		28.79% Pervious Area
0.235		71.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-8: PWS-8



Summary for Pond P-1: Bio P-1

Inflow Area = 0.901 ac, 43.62% Impervious, Inflow Depth > 0.76" for 1-Year event
Inflow = 0.75 cfs @ 12.10 hrs, Volume= 0.057 af
Outflow = 0.08 cfs @ 13.42 hrs, Volume= 0.031 af, Atten= 89%, Lag= 79.5 min
Primary = 0.08 cfs @ 13.42 hrs, Volume= 0.031 af
Routed to Pond P-3 : Detention P-3

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 101.56' @ 13.42 hrs Surf.Area= 2,523 sf Storage= 1,209 cf

Plug-Flow detention time= 254.6 min calculated for 0.031 af (55% of inflow)
Center-of-Mass det. time= 127.5 min (993.4 - 865.9)

Volume	Invert	Avail.Storage	Storage Description
#1	101.00'	6,493 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

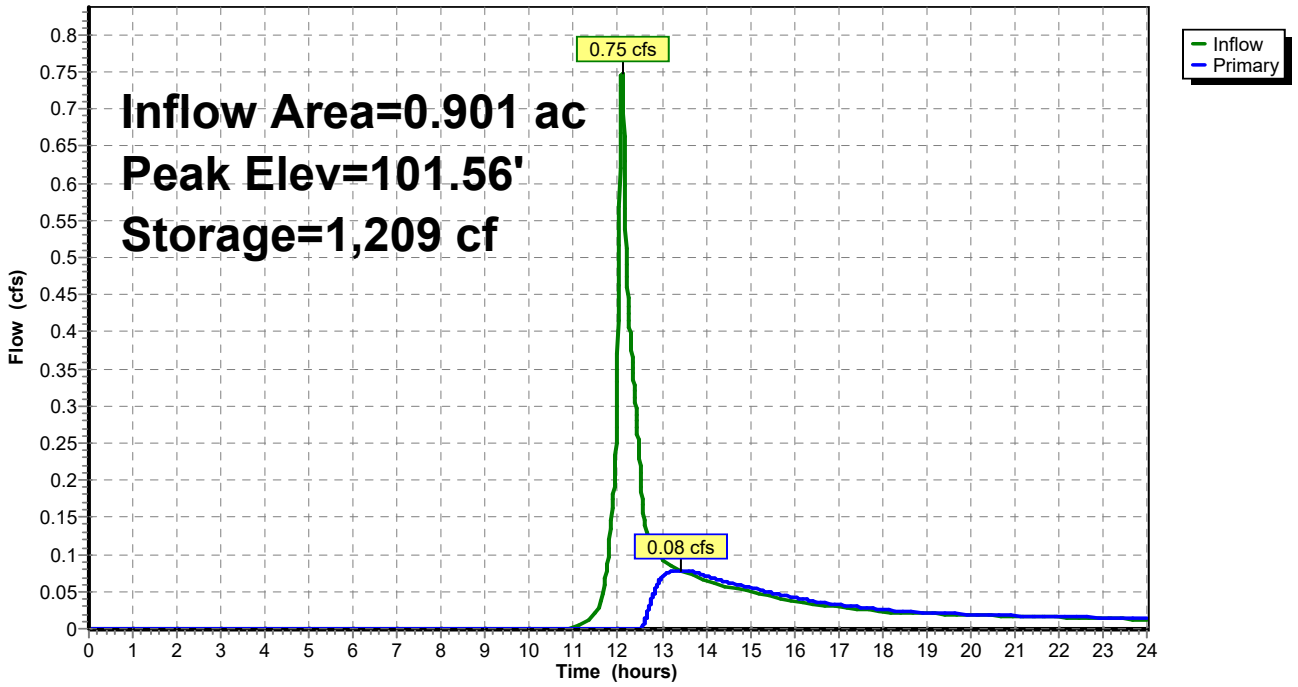
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
101.00	1,810	0	0
102.00	3,088	2,449	2,449
103.00	5,000	4,044	6,493

Device	Routing	Invert	Outlet Devices
#1	Primary	101.50'	**2.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	102.00'	**14.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.08 cfs @ 13.42 hrs HW=101.56' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 0.08 cfs @ 0.68 fps)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond P-1: Bio P-1

Hydrograph



Summary for Pond P-3: Detention P-3

Inflow Area = 2.812 ac, 52.28% Impervious, Inflow Depth > 0.84" for 1-Year event
Inflow = 2.17 cfs @ 12.09 hrs, Volume= 0.198 af
Outflow = 0.89 cfs @ 12.36 hrs, Volume= 0.196 af, Atten= 59%, Lag= 15.9 min
Primary = 0.89 cfs @ 12.36 hrs, Volume= 0.196 af
Routed to Link PDP-1 : PDP-1

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 95.06' @ 12.36 hrs Surf.Area= 0.059 ac Storage= 0.033 af

Plug-Flow detention time= 24.7 min calculated for 0.195 af (99% of inflow)
Center-of-Mass det. time= 18.2 min (871.4 - 853.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	94.00'	0.084 af	**22.75'W x 113.25'L x 5.50'H Field A** 0.325 af Overall - 0.116 af Embedded = 0.210 af x 40.0% Voids
#2A	94.75'	0.116 af	**ADS_StormTech MC-3500 d +Cap**x 45 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 45 Chambers in 3 Rows Cap Storage= 14.9 cf x 2 x 3 rows = 89.4 cf
		0.200 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	94.00'	**18.0" Round Culvert** L= 45.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 94.00' / 93.50' S= 0.0111 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	94.00'	**4.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	95.00'	**22.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	97.75'	**24.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Device 1	99.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.89 cfs @ 12.36 hrs HW=95.06' (Free Discharge)
└**1=Culvert** (Passes 0.89 cfs of 4.69 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.80 cfs @ 4.56 fps)
  ├**3=Orifice/Grate** (Orifice Controls 0.09 cfs @ 0.80 fps)
  ├**4=Orifice/Grate** (Controls 0.00 cfs)
  └**5=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Pond P-3: Detention P-3 - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= 14.9 cf x 2 x 3 rows = 89.4 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

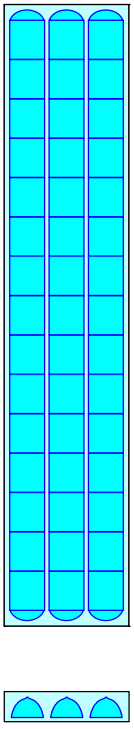
15 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 111.25' Row Length +12.0" End Stone x 2 = 113.25' Base Length
3 Rows x 77.0" Wide + 9.0" Spacing x 2 + 12.0" Side Stone x 2 = 22.75' Base Width
9.0" Stone Base + 45.0" Chamber Height + 12.0" Stone Cover = 5.50' Field Height

45 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 3 Rows = 5,037.2 cf Chamber Storage

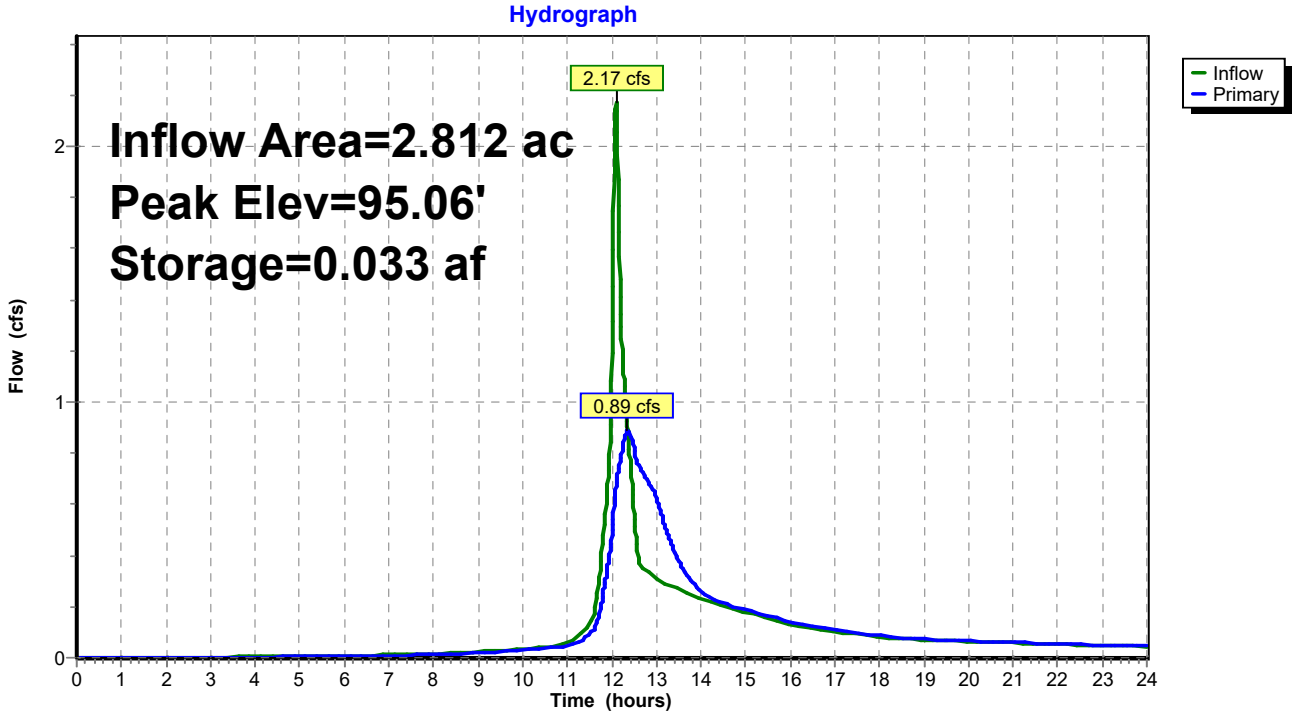
14,170.4 cf Field - 5,037.2 cf Chambers = 9,133.2 cf Stone x 40.0% Voids = 3,653.3 cf Stone Storage

Chamber Storage + Stone Storage = 8,690.5 cf = 0.200 af
Overall Storage Efficiency = 61.3%
Overall System Size = 113.25' x 22.75' x 5.50'

45 Chambers
524.8 cy Field
338.3 cy Stone



Pond P-3: Detention P-3

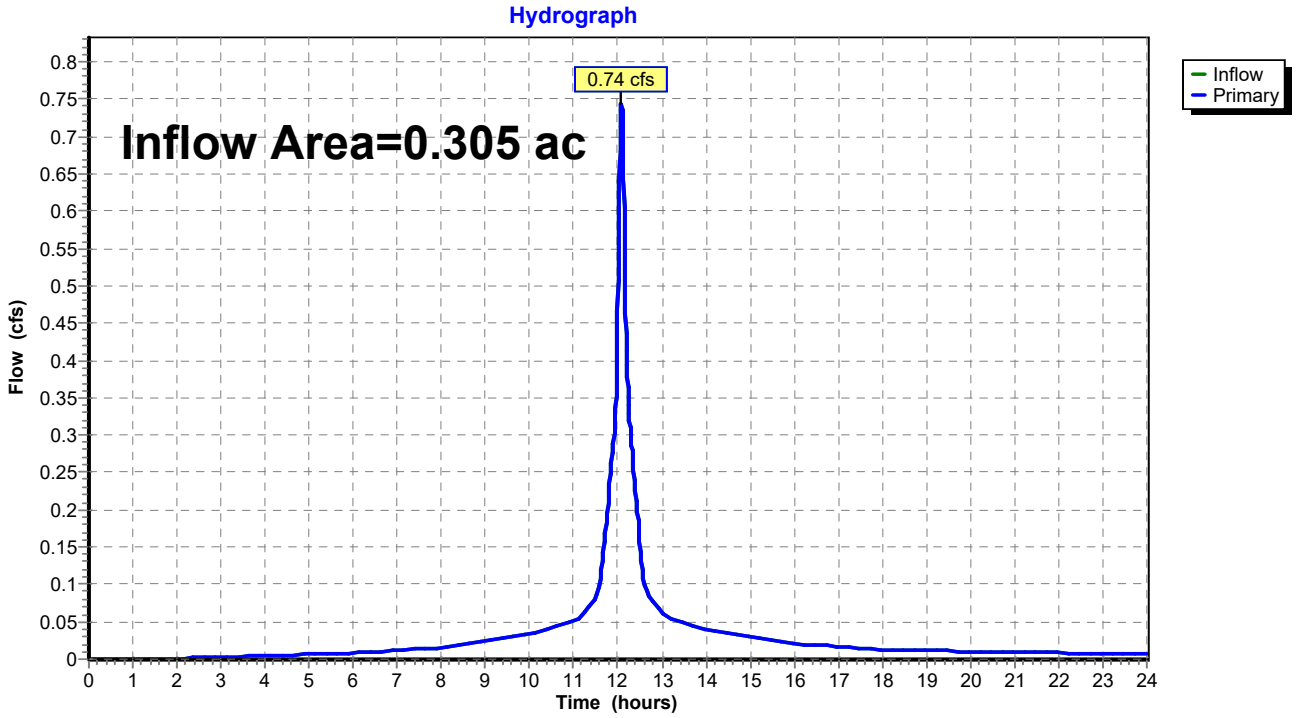


Summary for Pond SC-1: Swirl Chamber

Inflow Area = 0.305 ac,100.00% Impervious, Inflow Depth > 2.30" for 1-Year event
Inflow = 0.74 cfs @ 12.08 hrs, Volume= 0.058 af
Primary = 0.74 cfs @ 12.08 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min
Routed to Pond P-3 : Detention P-3

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Pond SC-1: Swirl Chamber

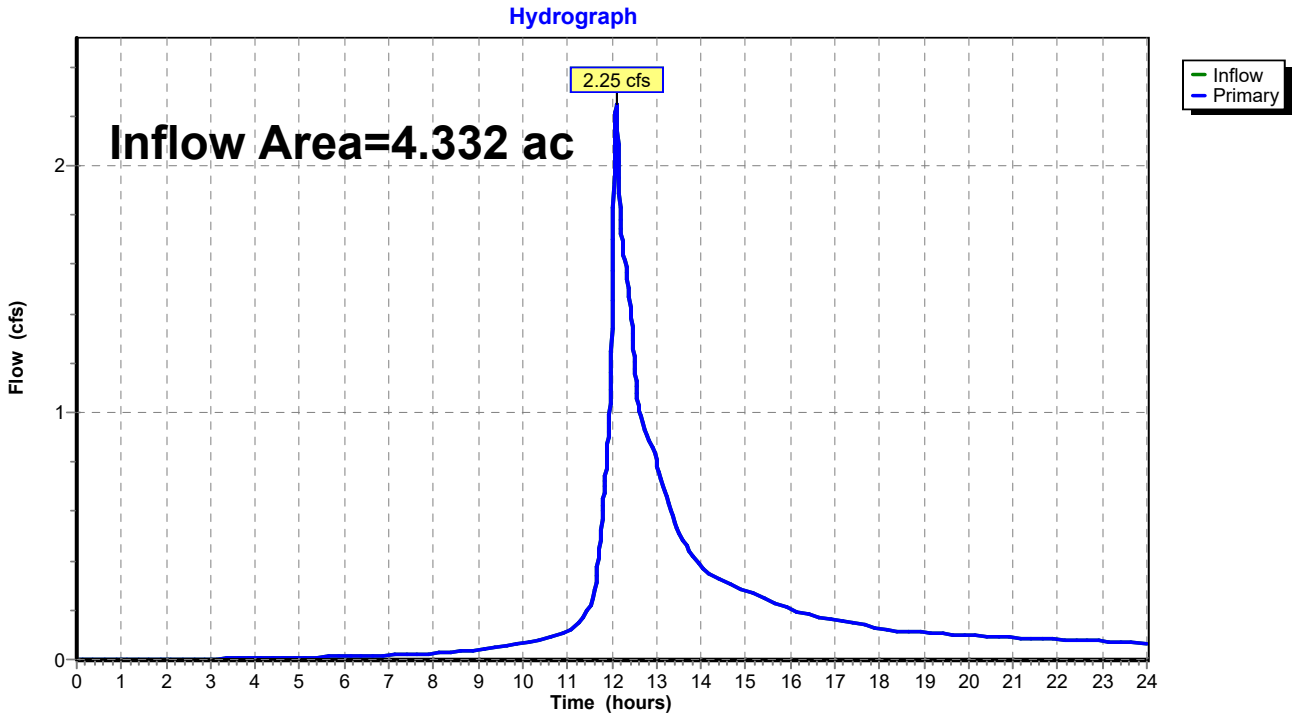


Summary for Link PDP-1: PDP-1

Inflow Area = 4.332 ac, 50.48% Impervious, Inflow Depth > 0.89" for 1-Year event
Inflow = 2.25 cfs @ 12.10 hrs, Volume= 0.321 af
Primary = 2.25 cfs @ 12.10 hrs, Volume= 0.321 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link PDP-1: PDP-1



Summary for Subcatchment PWS-1: PWS-1

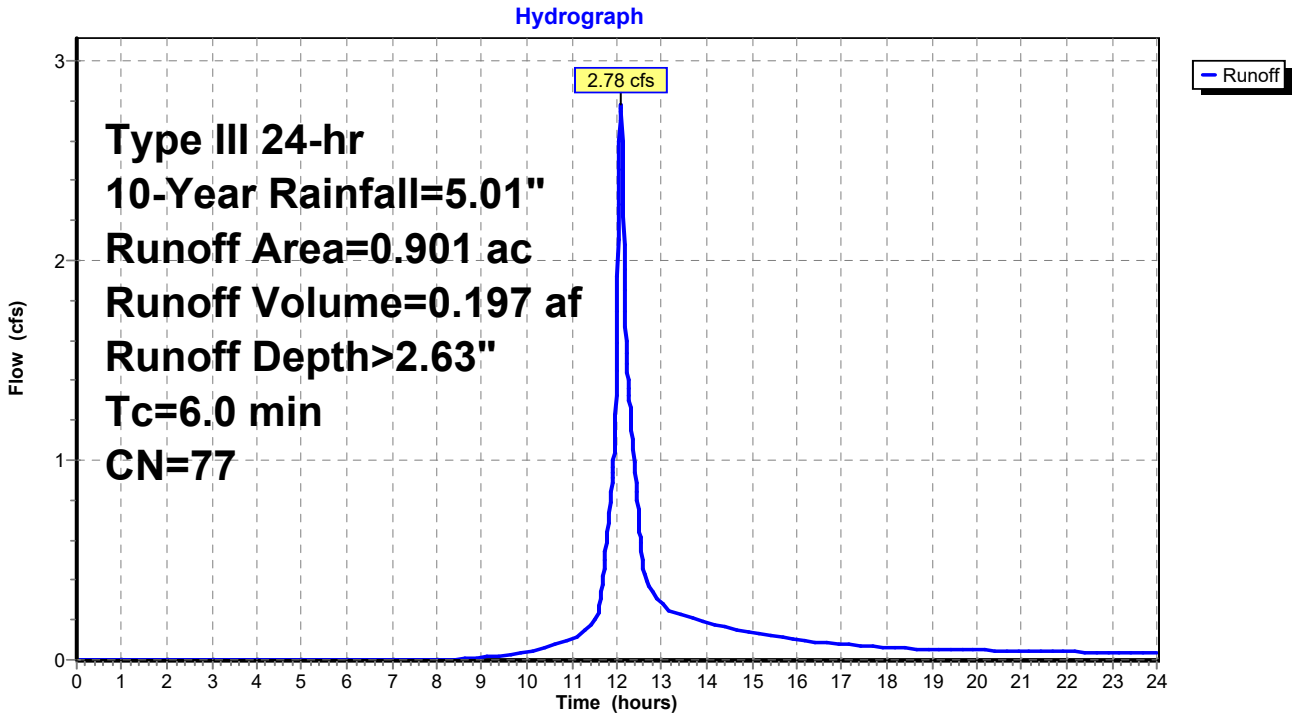
Runoff = 2.78 cfs @ 12.09 hrs, Volume= 0.197 af, Depth> 2.63"
Routed to Pond P-1 : Bio P-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (ac)	CN	Description
0.393	98	Paved parking, HSG B
0.448	61	>75% Grass cover, Good, HSG B
0.060	55	Woods, Good, HSG B
0.901	77	Weighted Average
0.508		56.38% Pervious Area
0.393		43.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-1: PWS-1



Summary for Subcatchment PWS-2: PWS-2

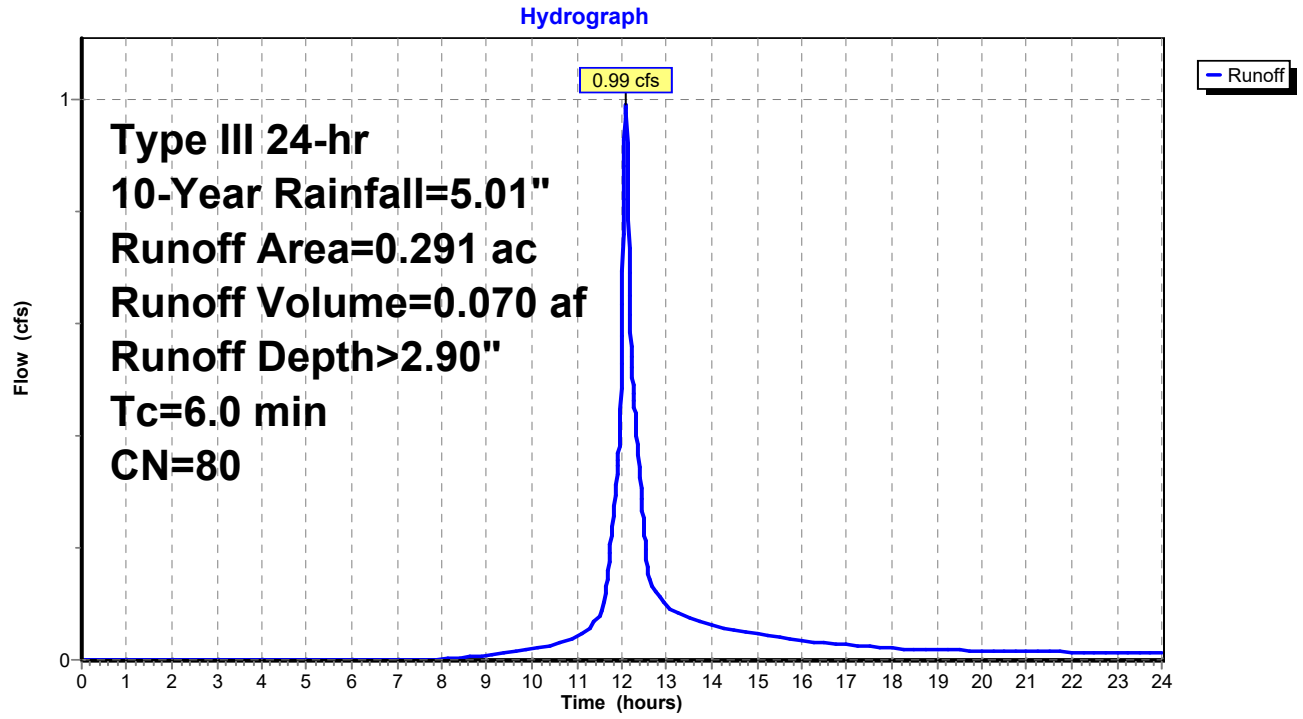
Runoff = 0.99 cfs @ 12.09 hrs, Volume= 0.070 af, Depth> 2.90"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (ac)	CN	Description
0.150	98	Paved parking, HSG B
0.115	61	>75% Grass cover, Good, HSG B
0.026	55	Woods, Good, HSG B
0.291	80	Weighted Average
0.141		48.45% Pervious Area
0.150		51.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-2: PWS-2



Summary for Subcatchment PWS-3: PWS-3

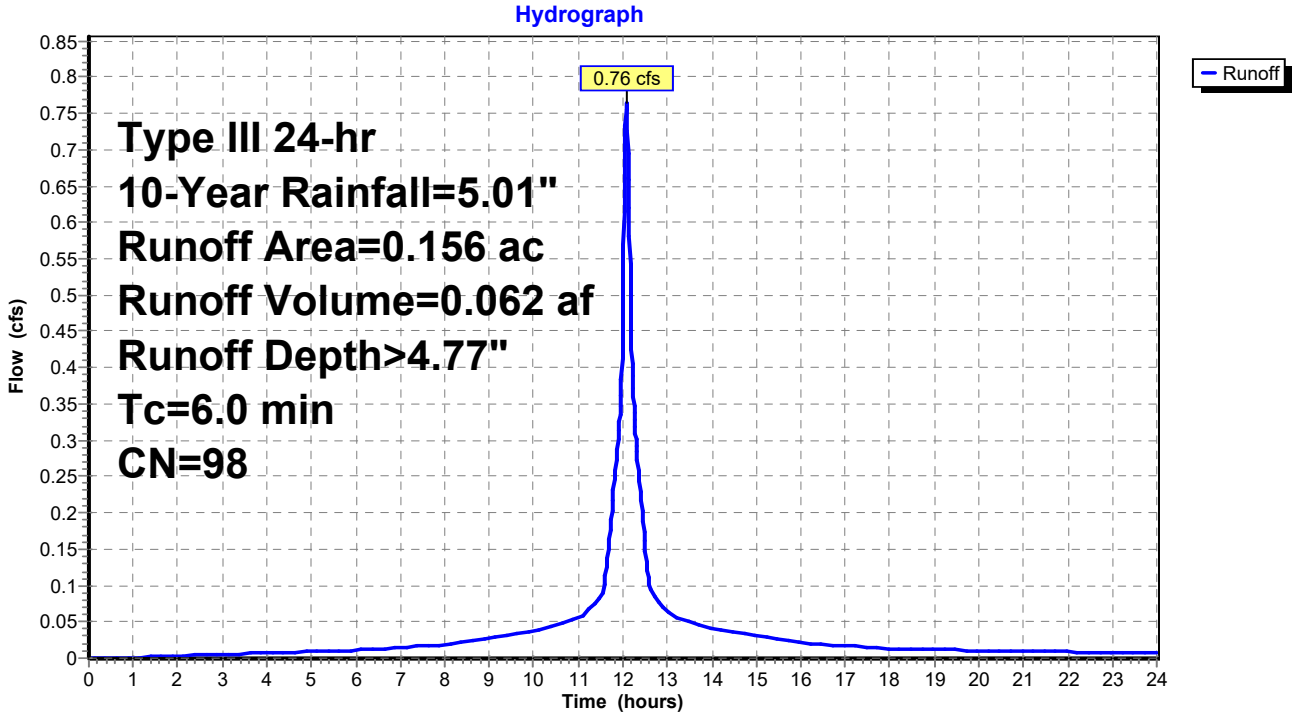
Runoff = 0.76 cfs @ 12.08 hrs, Volume= 0.062 af, Depth> 4.77"
Routed to Pond SC-1 : Swirl Chamber

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (ac)	CN	Description
0.156	98	Roofs, HSG B
0.156		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-3: PWS-3



Summary for Subcatchment PWS-4: PWS-4

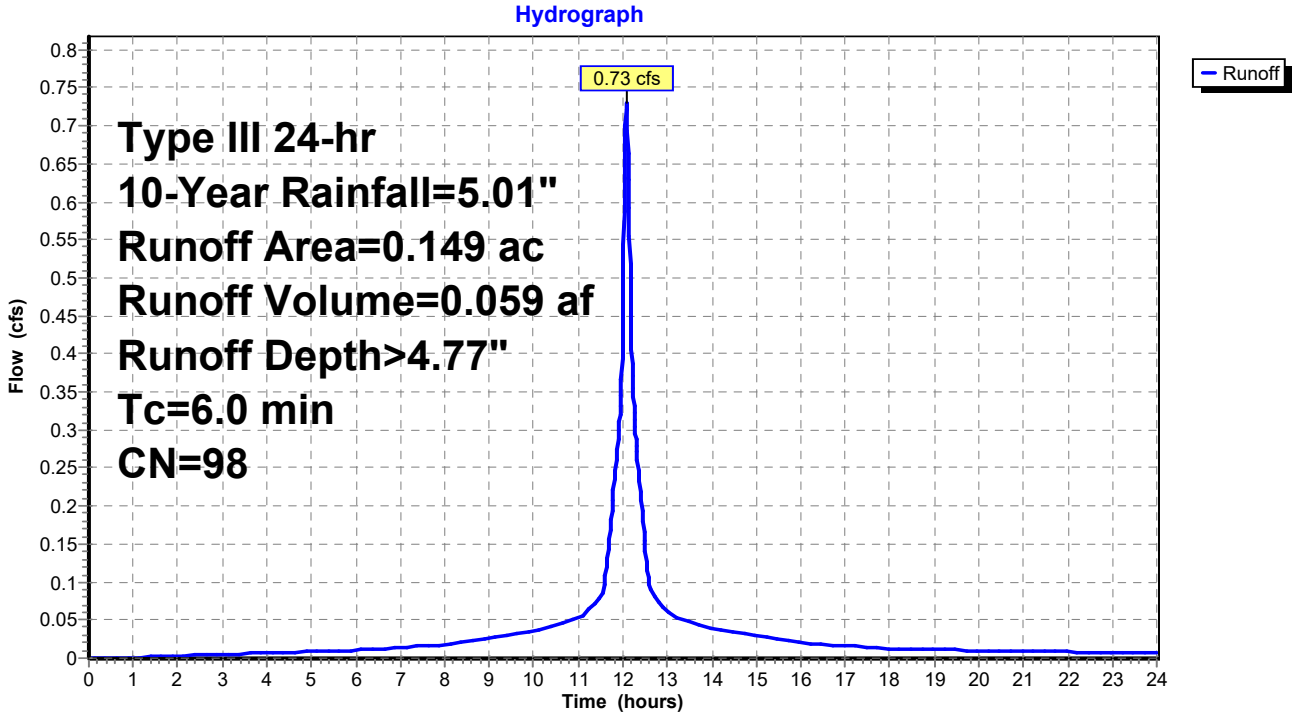
Runoff = 0.73 cfs @ 12.08 hrs, Volume= 0.059 af, Depth> 4.77"
Routed to Pond SC-1 : Swirl Chamber

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (ac)	CN	Description
0.149	98	Roofs, HSG B
0.149		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-4: PWS-4



Summary for Subcatchment PWS-5: PWS-5

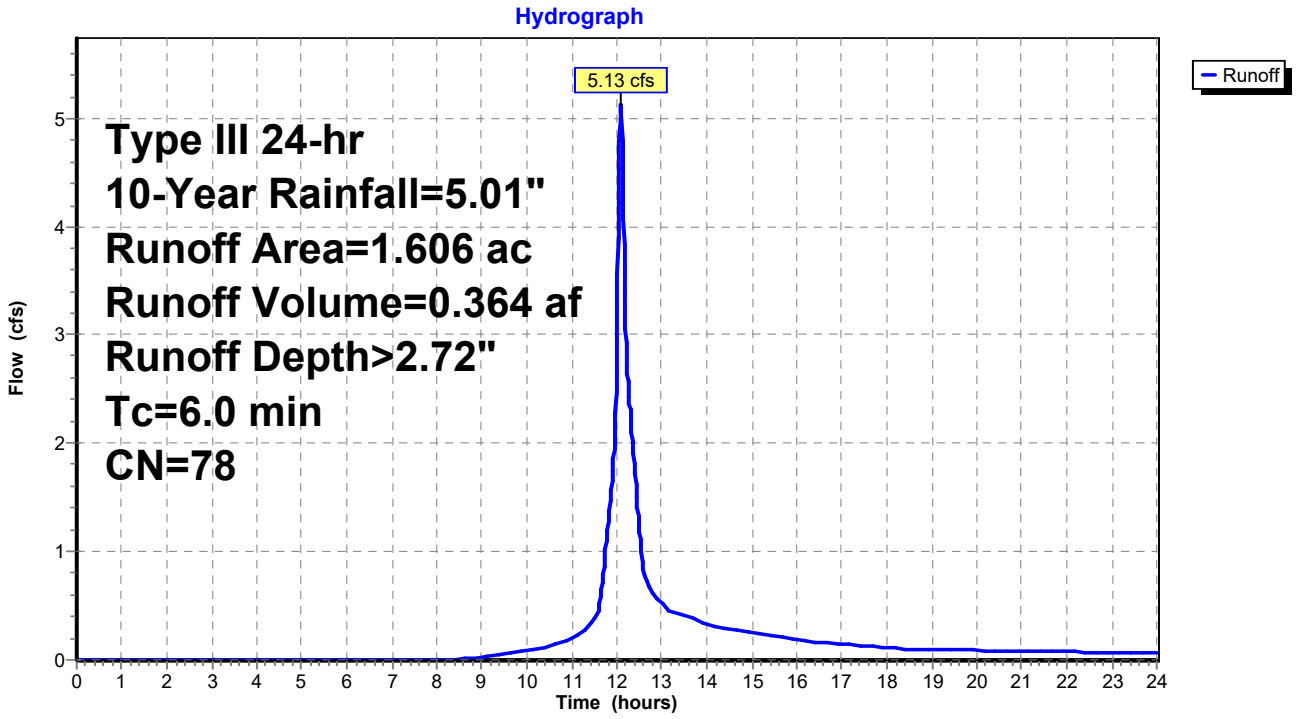
Runoff = 5.13 cfs @ 12.09 hrs, Volume= 0.364 af, Depth> 2.72"
Routed to Pond P-3 : Detention P-3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (ac)	CN	Description
0.772	98	Paved parking, HSG B
0.662	61	>75% Grass cover, Good, HSG B
0.172	55	Woods, Good, HSG B
1.606	78	Weighted Average
0.834		51.93% Pervious Area
0.772		48.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-5: PWS-5



Summary for Subcatchment PWS-6: PWS-6

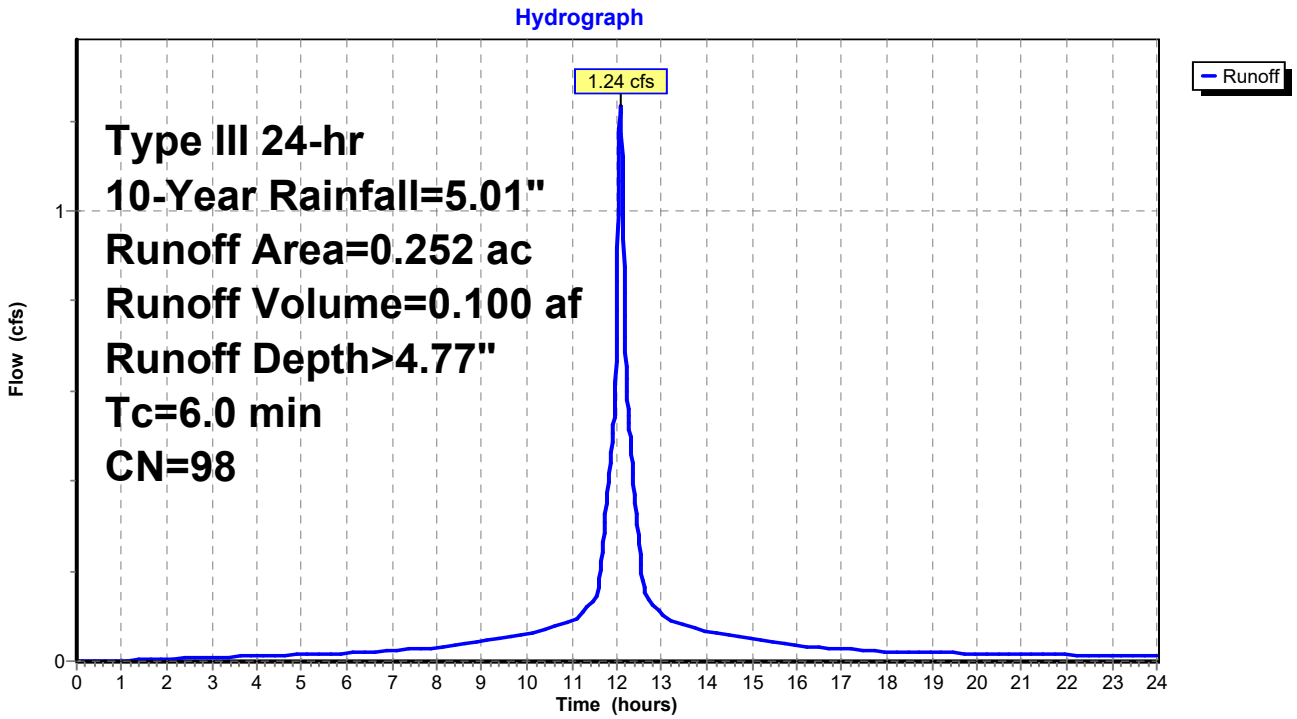
Runoff = 1.24 cfs @ 12.08 hrs, Volume= 0.100 af, Depth> 4.77"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (ac)	CN	Description
0.252	98	Roofs, HSG B
0.252		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-6: PWS-6



Summary for Subcatchment PWS-7: PWS-7

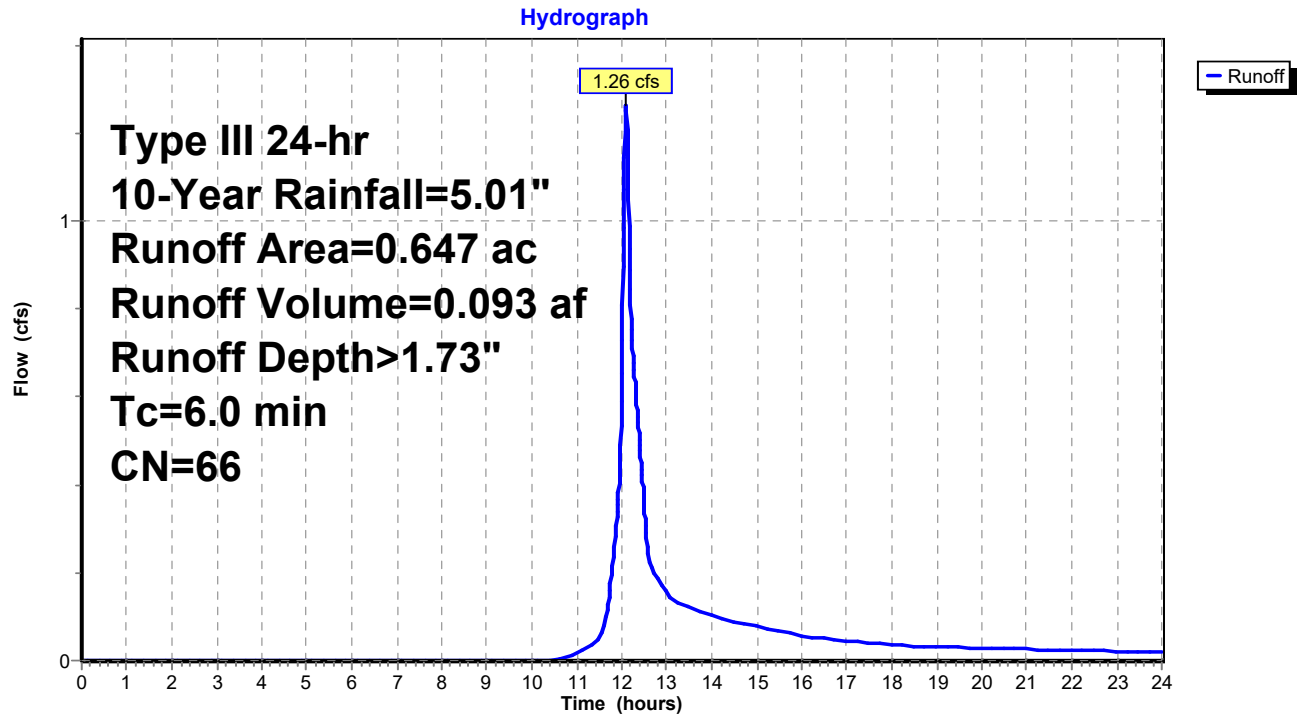
Runoff = 1.26 cfs @ 12.09 hrs, Volume= 0.093 af, Depth> 1.73"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (ac)	CN	Description
0.080	98	Paved parking, HSG B
0.567	61	>75% Grass cover, Good, HSG B
0.647	66	Weighted Average
0.567		87.64% Pervious Area
0.080		12.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-7: PWS-7



Summary for Subcatchment PWS-8: PWS-8

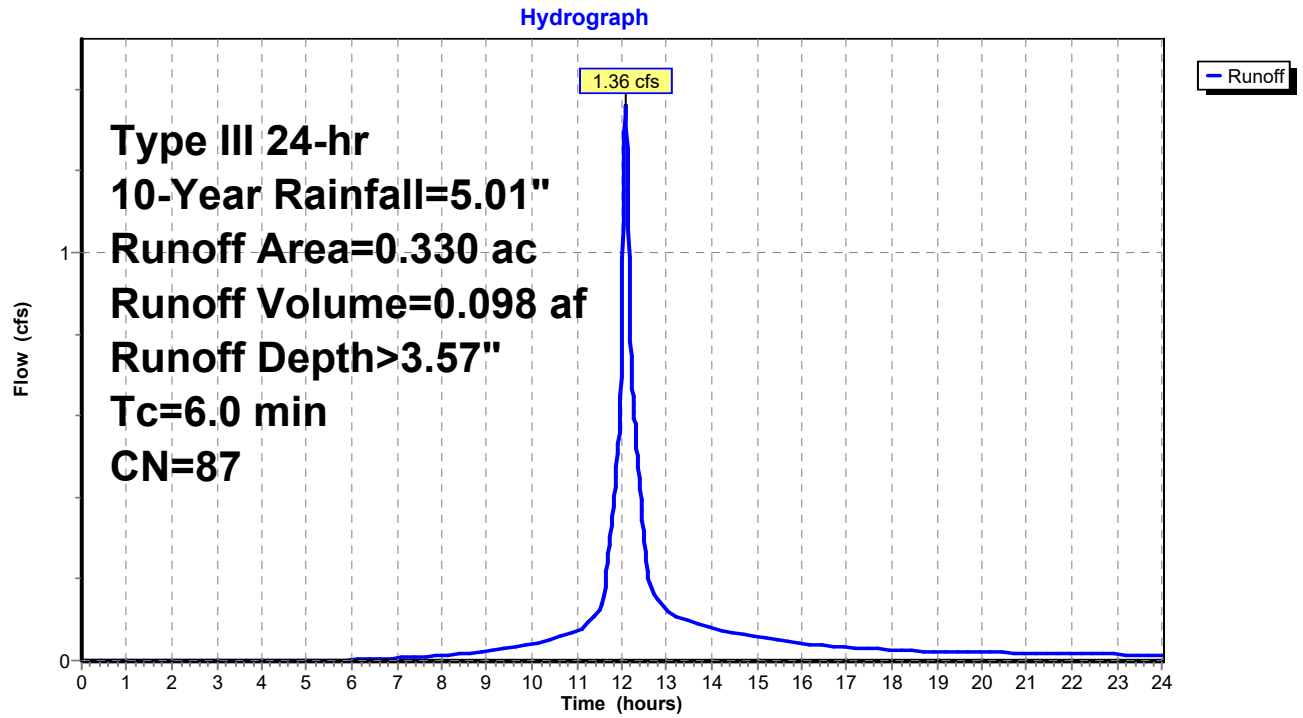
Runoff = 1.36 cfs @ 12.09 hrs, Volume= 0.098 af, Depth> 3.57"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (ac)	CN	Description
0.235	98	Paved parking, HSG B
0.095	61	>75% Grass cover, Good, HSG B
0.330	87	Weighted Average
0.095		28.79% Pervious Area
0.235		71.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-8: PWS-8



Summary for Pond P-1: Bio P-1

Inflow Area = 0.901 ac, 43.62% Impervious, Inflow Depth > 2.63" for 10-Year event
Inflow = 2.78 cfs @ 12.09 hrs, Volume= 0.197 af
Outflow = 1.79 cfs @ 12.19 hrs, Volume= 0.171 af, Atten= 36%, Lag= 5.8 min
Primary = 1.79 cfs @ 12.19 hrs, Volume= 0.171 af
Routed to Pond P-3 : Detention P-3

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 101.95' @ 12.19 hrs Surf.Area= 3,024 sf Storage= 2,296 cf

Plug-Flow detention time= 96.7 min calculated for 0.171 af (87% of inflow)
Center-of-Mass det. time= 37.0 min (865.9 - 828.9)

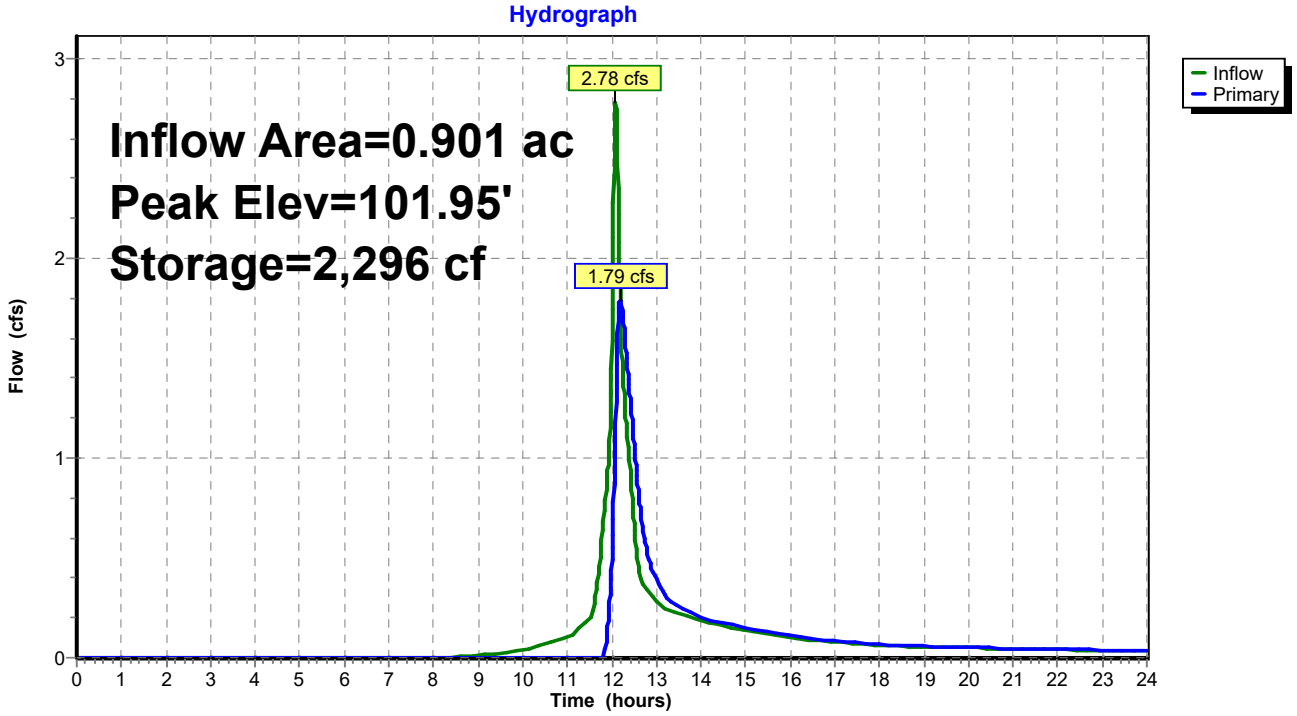
Volume	Invert	Avail.Storage	Storage Description
#1	101.00'	6,493 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
101.00	1,810	0	0
102.00	3,088	2,449	2,449
103.00	5,000	4,044	6,493

Device	Routing	Invert	Outlet Devices
#1	Primary	101.50'	**2.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	102.00'	**14.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=1.79 cfs @ 12.19 hrs HW=101.95' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 1.79 cfs @ 1.99 fps)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond P-1: Bio P-1



Summary for Pond P-3: Detention P-3

Inflow Area = 2.812 ac, 52.28% Impervious, Inflow Depth > 2.80" for 10-Year event
Inflow = 7.92 cfs @ 12.10 hrs, Volume= 0.656 af
Outflow = 5.44 cfs @ 12.21 hrs, Volume= 0.652 af, Atten= 31%, Lag= 6.9 min
Primary = 5.44 cfs @ 12.21 hrs, Volume= 0.652 af
Routed to Link PDP-1 : PDP-1

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 96.18' @ 12.21 hrs Surf.Area= 0.059 ac Storage= 0.087 af

Plug-Flow detention time= 18.4 min calculated for 0.652 af (99% of inflow)
Center-of-Mass det. time= 14.9 min (836.9 - 822.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	94.00'	0.084 af	**22.75'W x 113.25'L x 5.50'H Field A** 0.325 af Overall - 0.116 af Embedded = 0.210 af x 40.0% Voids
#2A	94.75'	0.116 af	**ADS_StormTech MC-3500 d +Cap**x 45 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 45 Chambers in 3 Rows Cap Storage= 14.9 cf x 2 x 3 rows = 89.4 cf
		0.200 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	94.00'	**18.0" Round Culvert** L= 45.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 94.00' / 93.50' S= 0.0111 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	94.00'	**4.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	95.00'	**22.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	97.75'	**24.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Device 1	99.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=5.44 cfs @ 12.21 hrs HW=96.18' (Free Discharge)
└─**1=Culvert** (Passes 5.44 cfs of 10.19 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 1.19 cfs @ 6.84 fps)
  ├─**3=Orifice/Grate** (Orifice Controls 4.25 cfs @ 4.64 fps)
  ├─**4=Orifice/Grate** (Controls 0.00 cfs)
  └─**5=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Pond P-3: Detention P-3 - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= 14.9 cf x 2 x 3 rows = 89.4 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

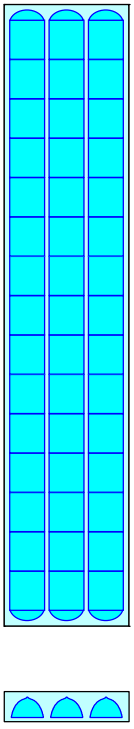
15 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 111.25' Row Length +12.0" End Stone x 2 = 113.25' Base Length
3 Rows x 77.0" Wide + 9.0" Spacing x 2 + 12.0" Side Stone x 2 = 22.75' Base Width
9.0" Stone Base + 45.0" Chamber Height + 12.0" Stone Cover = 5.50' Field Height

45 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 3 Rows = 5,037.2 cf Chamber Storage

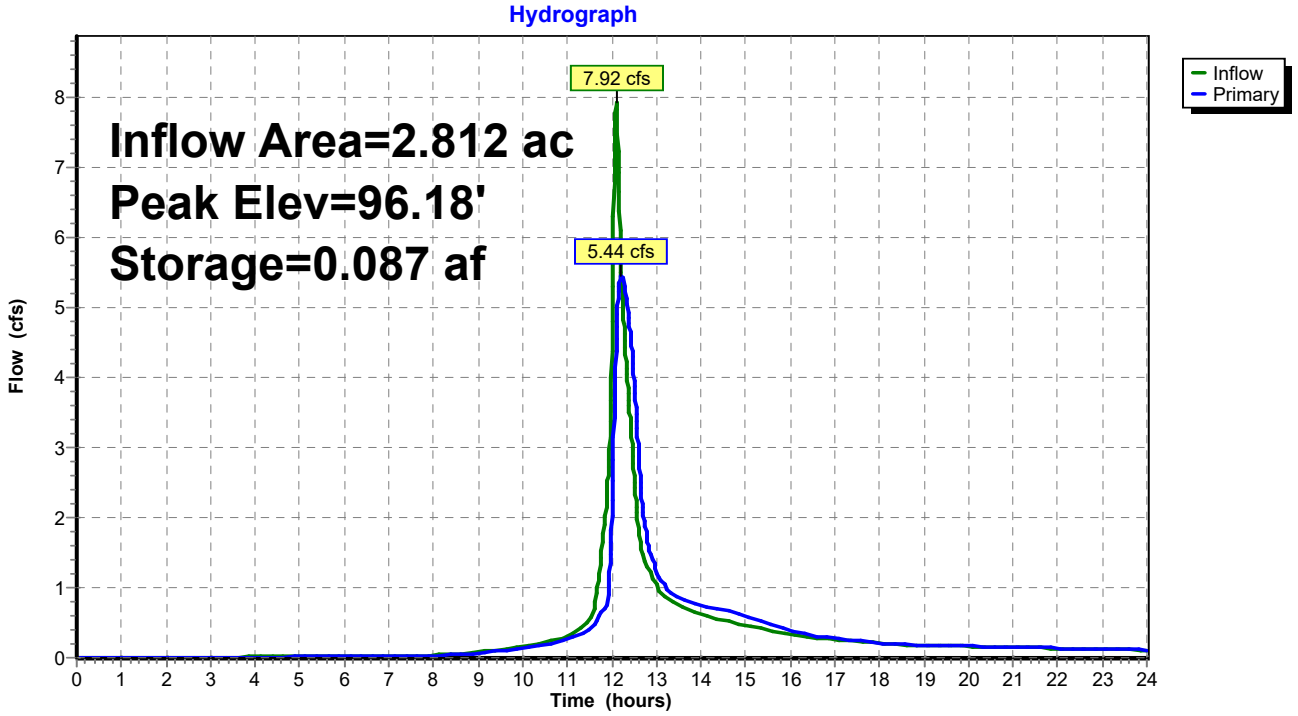
14,170.4 cf Field - 5,037.2 cf Chambers = 9,133.2 cf Stone x 40.0% Voids = 3,653.3 cf Stone Storage

Chamber Storage + Stone Storage = 8,690.5 cf = 0.200 af
Overall Storage Efficiency = 61.3%
Overall System Size = 113.25' x 22.75' x 5.50'

45 Chambers
524.8 cy Field
338.3 cy Stone



Pond P-3: Detention P-3

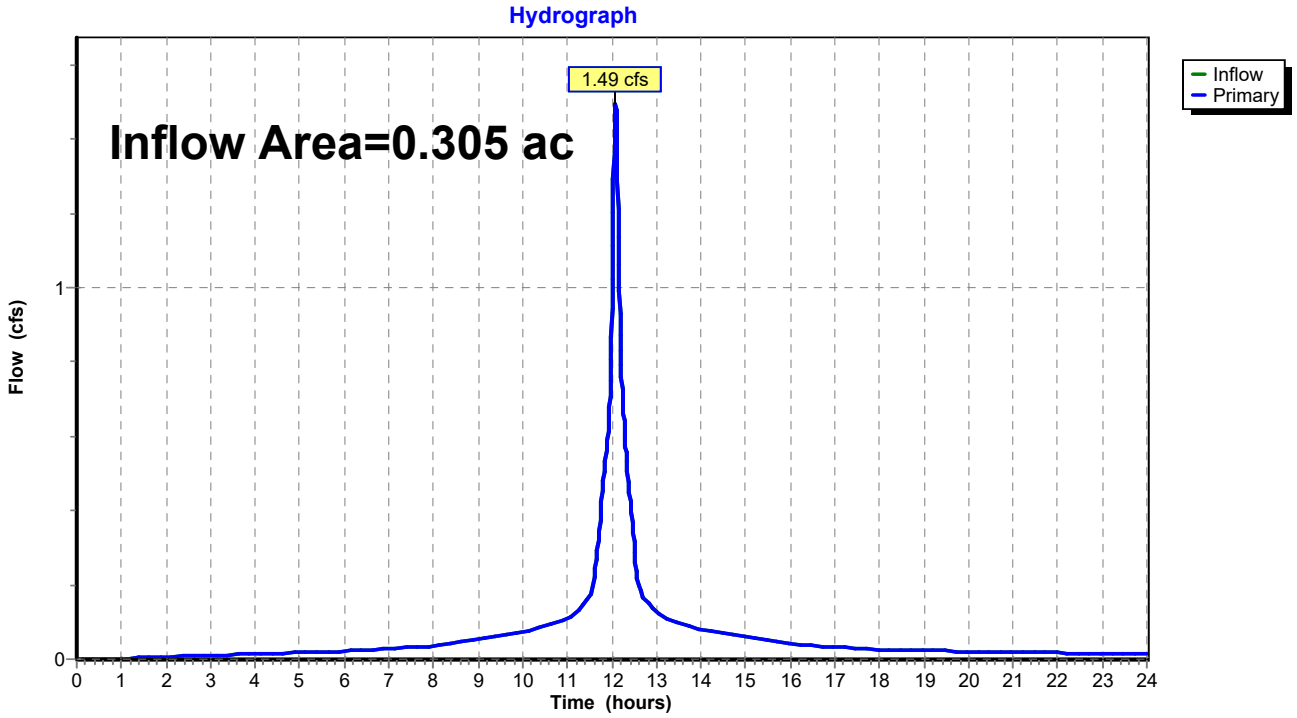


Summary for Pond SC-1: Swirl Chamber

Inflow Area = 0.305 ac,100.00% Impervious, Inflow Depth > 4.77" for 10-Year event
Inflow = 1.49 cfs @ 12.08 hrs, Volume= 0.121 af
Primary = 1.49 cfs @ 12.08 hrs, Volume= 0.121 af, Atten= 0%, Lag= 0.0 min
Routed to Pond P-3 : Detention P-3

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Pond SC-1: Swirl Chamber

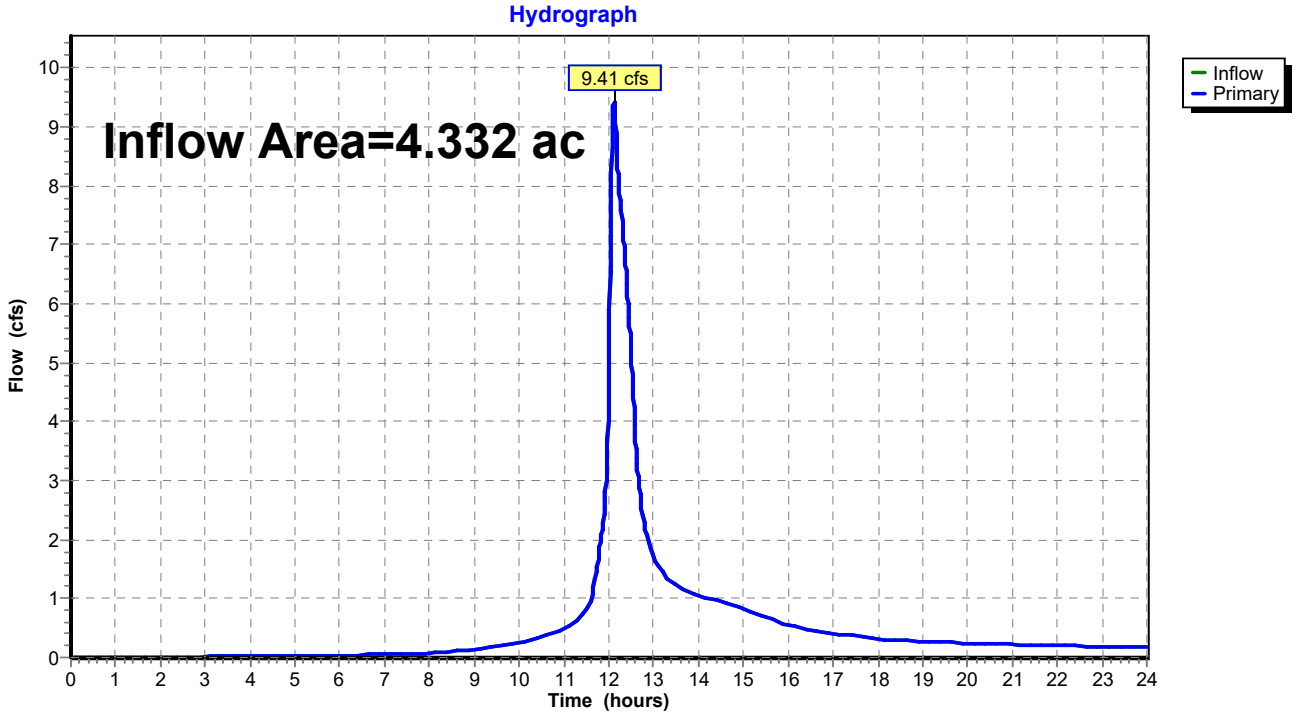


Summary for Link PDP-1: PDP-1

Inflow Area = 4.332 ac, 50.48% Impervious, Inflow Depth > 2.81" for 10-Year event
Inflow = 9.41 cfs @ 12.11 hrs, Volume= 1.014 af
Primary = 9.41 cfs @ 12.11 hrs, Volume= 1.014 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link PDP-1: PDP-1



Summary for Subcatchment PWS-1: PWS-1

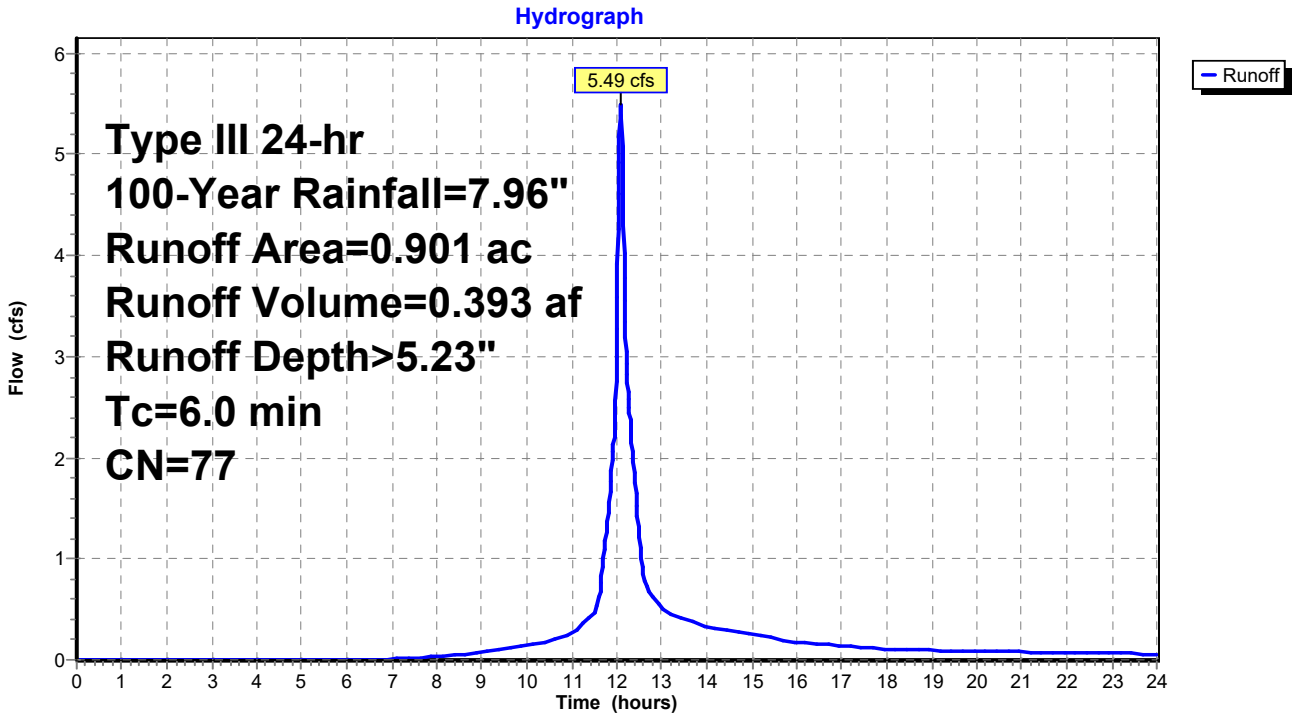
Runoff = 5.49 cfs @ 12.09 hrs, Volume= 0.393 af, Depth> 5.23"
Routed to Pond P-1 : Bio P-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (ac)	CN	Description
0.393	98	Paved parking, HSG B
0.448	61	>75% Grass cover, Good, HSG B
0.060	55	Woods, Good, HSG B
0.901	77	Weighted Average
0.508		56.38% Pervious Area
0.393		43.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-1: PWS-1



Summary for Subcatchment PWS-2: PWS-2

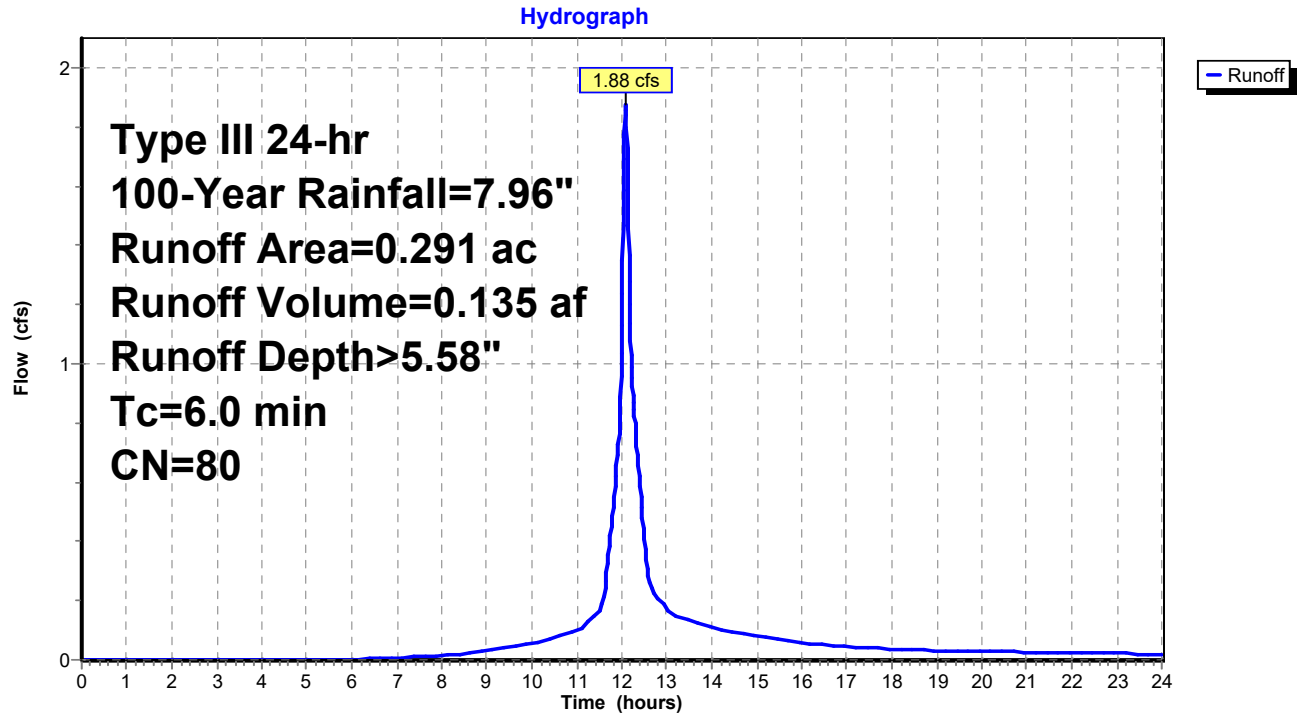
Runoff = 1.88 cfs @ 12.09 hrs, Volume= 0.135 af, Depth> 5.58"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (ac)	CN	Description
0.150	98	Paved parking, HSG B
0.115	61	>75% Grass cover, Good, HSG B
0.026	55	Woods, Good, HSG B
0.291	80	Weighted Average
0.141		48.45% Pervious Area
0.150		51.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-2: PWS-2



Summary for Subcatchment PWS-3: PWS-3

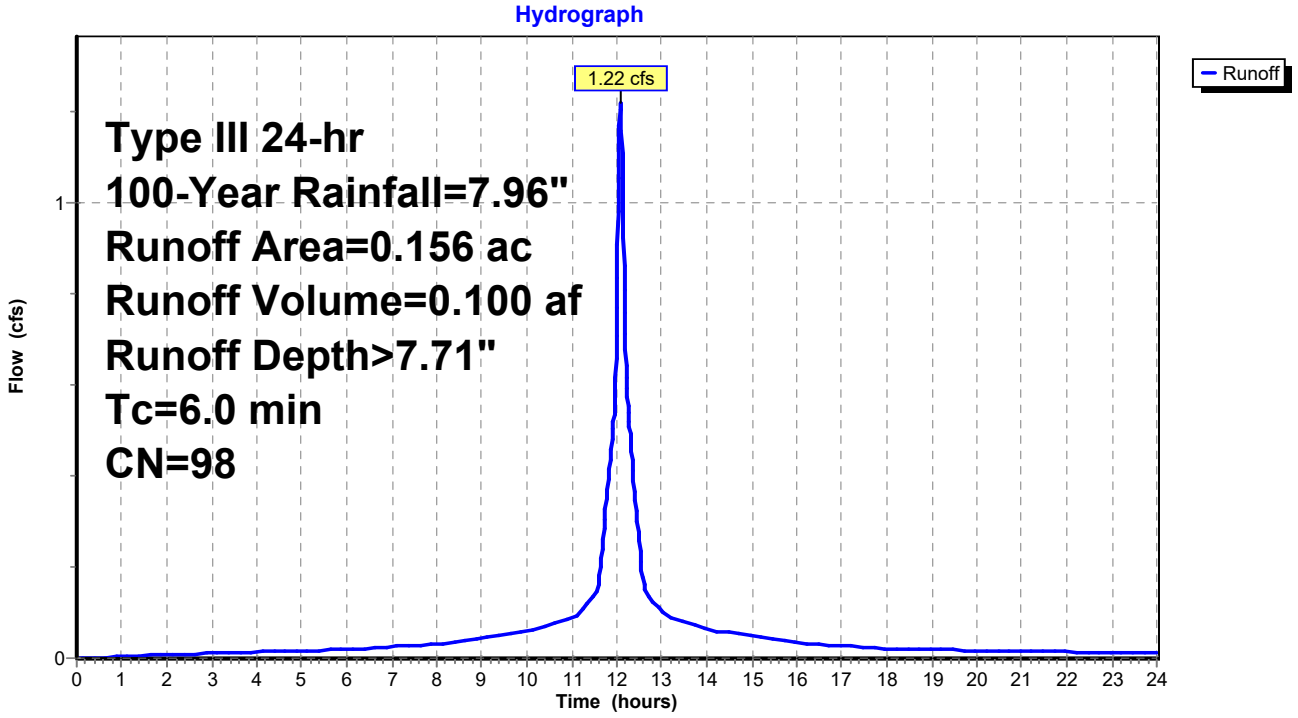
Runoff = 1.22 cfs @ 12.08 hrs, Volume= 0.100 af, Depth> 7.71"
Routed to Pond SC-1 : Swirl Chamber

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (ac)	CN	Description
0.156	98	Roofs, HSG B
0.156		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-3: PWS-3



Summary for Subcatchment PWS-4: PWS-4

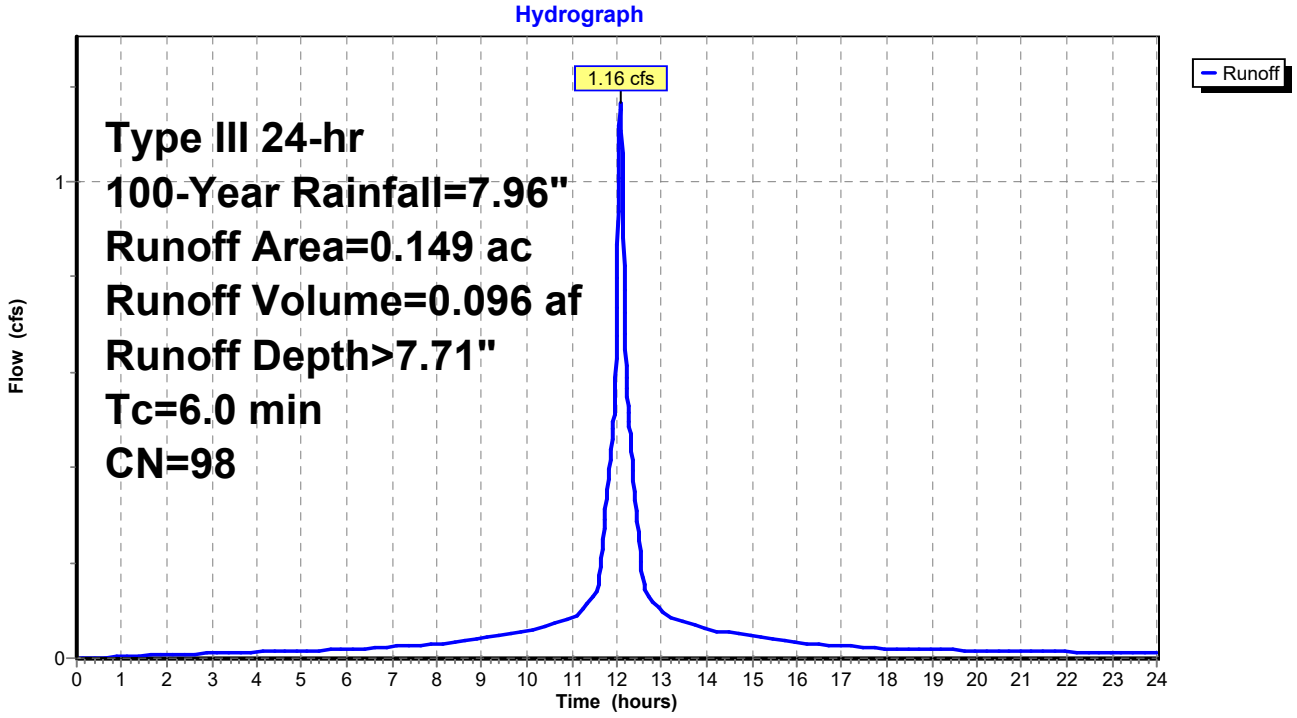
Runoff = 1.16 cfs @ 12.08 hrs, Volume= 0.096 af, Depth> 7.71"
Routed to Pond SC-1 : Swirl Chamber

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (ac)	CN	Description
0.149	98	Roofs, HSG B
0.149		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-4: PWS-4



Summary for Subcatchment PWS-5: PWS-5

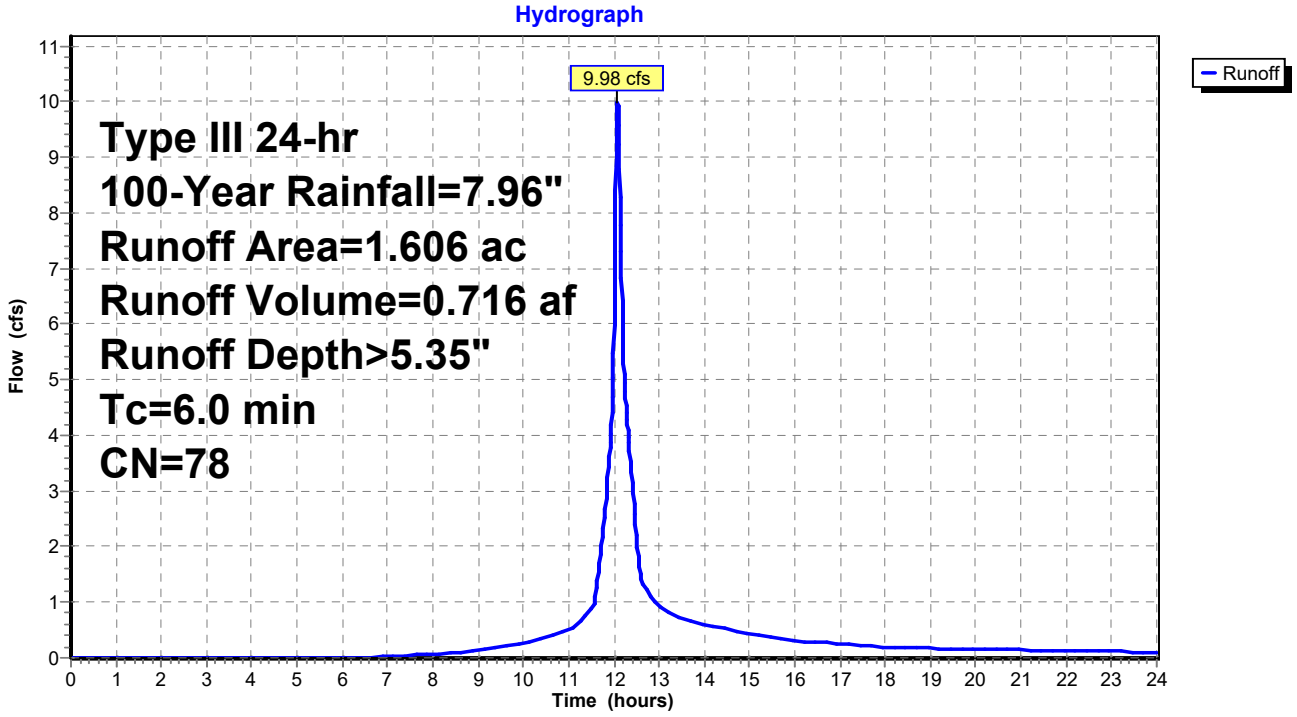
Runoff = 9.98 cfs @ 12.09 hrs, Volume= 0.716 af, Depth> 5.35"
Routed to Pond P-3 : Detention P-3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (ac)	CN	Description
0.772	98	Paved parking, HSG B
0.662	61	>75% Grass cover, Good, HSG B
0.172	55	Woods, Good, HSG B
1.606	78	Weighted Average
0.834		51.93% Pervious Area
0.772		48.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-5: PWS-5



Summary for Subcatchment PWS-6: PWS-6

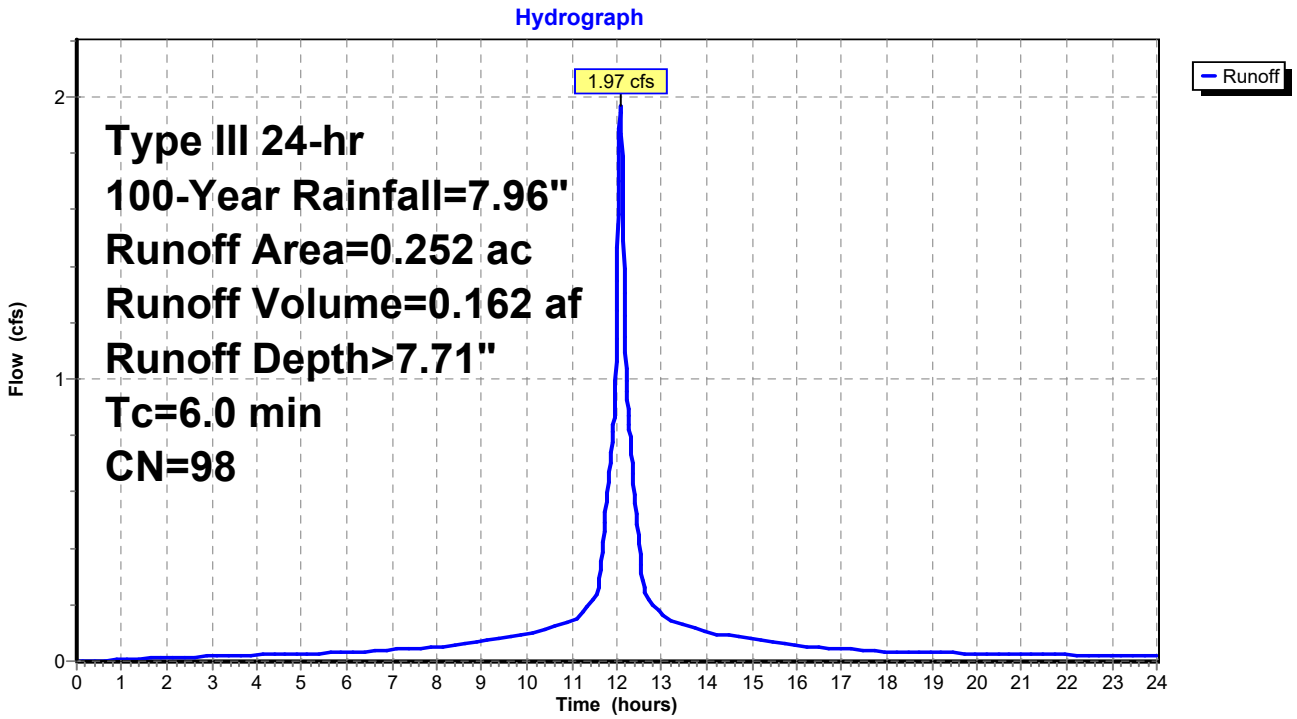
Runoff = 1.97 cfs @ 12.08 hrs, Volume= 0.162 af, Depth> 7.71"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (ac)	CN	Description
0.252	98	Roofs, HSG B
0.252		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-6: PWS-6



Summary for Subcatchment PWS-7: PWS-7

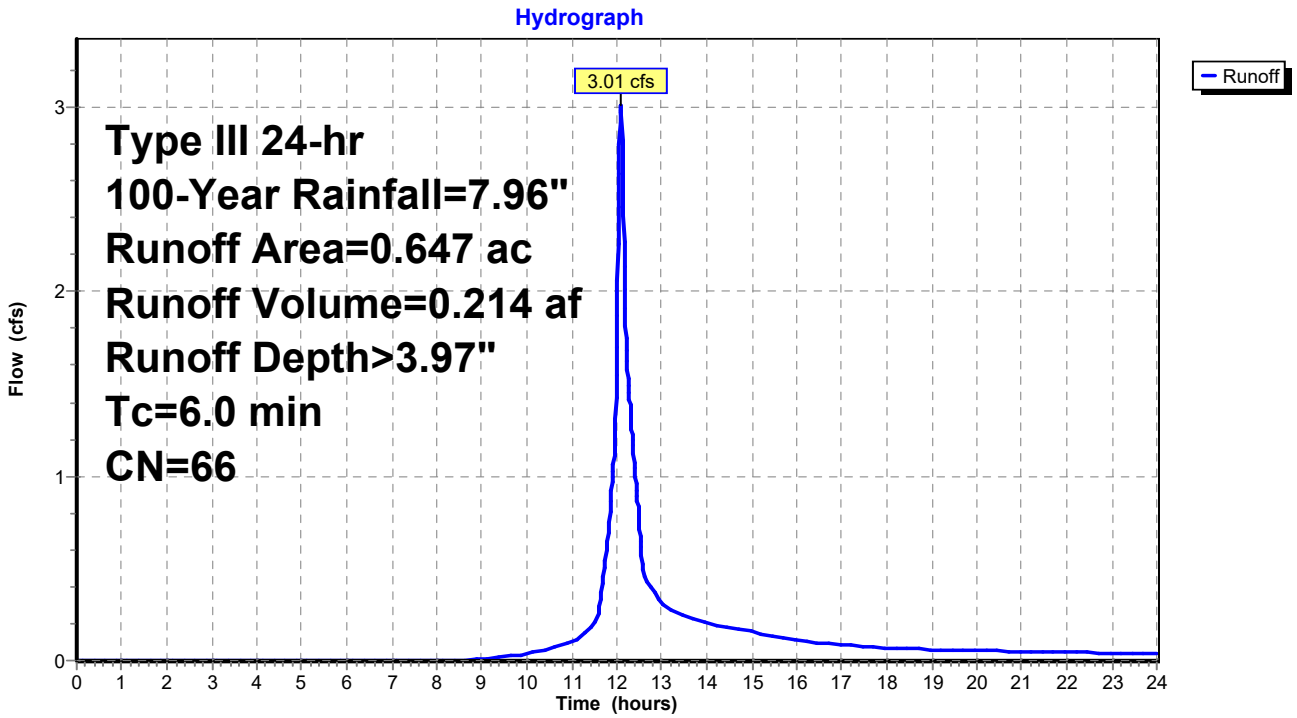
Runoff = 3.01 cfs @ 12.09 hrs, Volume= 0.214 af, Depth> 3.97"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (ac)	CN	Description
0.080	98	Paved parking, HSG B
0.567	61	>75% Grass cover, Good, HSG B
0.647	66	Weighted Average
0.567		87.64% Pervious Area
0.080		12.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-7: PWS-7



Summary for Subcatchment PWS-8: PWS-8

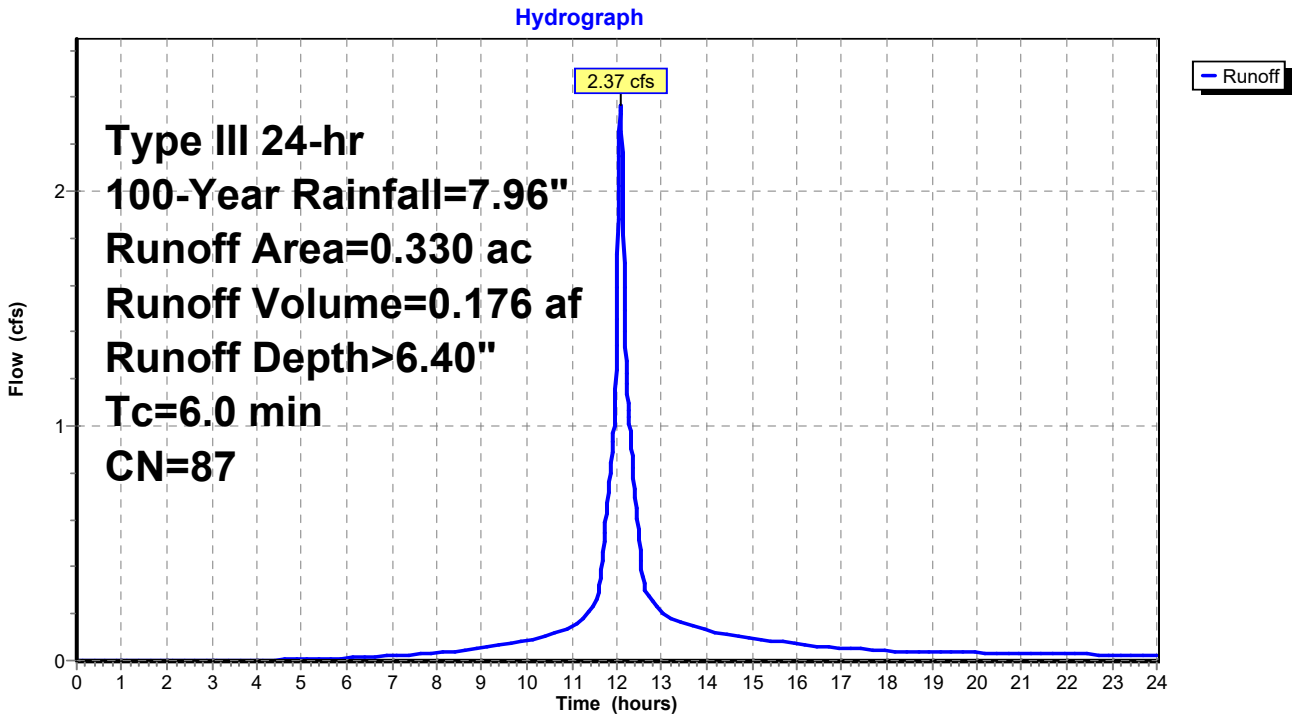
Runoff = 2.37 cfs @ 12.08 hrs, Volume= 0.176 af, Depth> 6.40"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (ac)	CN	Description
0.235	98	Paved parking, HSG B
0.095	61	>75% Grass cover, Good, HSG B
0.330	87	Weighted Average
0.095		28.79% Pervious Area
0.235		71.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-8: PWS-8



Summary for Pond P-1: Bio P-1

Inflow Area = 0.901 ac, 43.62% Impervious, Inflow Depth > 5.23" for 100-Year event
Inflow = 5.49 cfs @ 12.09 hrs, Volume= 0.393 af
Outflow = 5.07 cfs @ 12.12 hrs, Volume= 0.366 af, Atten= 8%, Lag= 2.0 min
Primary = 5.07 cfs @ 12.12 hrs, Volume= 0.366 af
Routed to Pond P-3 : Detention P-3

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 102.13' @ 12.12 hrs Surf.Area= 3,344 sf Storage= 2,879 cf

Plug-Flow detention time= 63.1 min calculated for 0.366 af (93% of inflow)
Center-of-Mass det. time= 27.1 min (836.3 - 809.3)

Volume	Invert	Avail.Storage	Storage Description
#1	101.00'	6,493 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

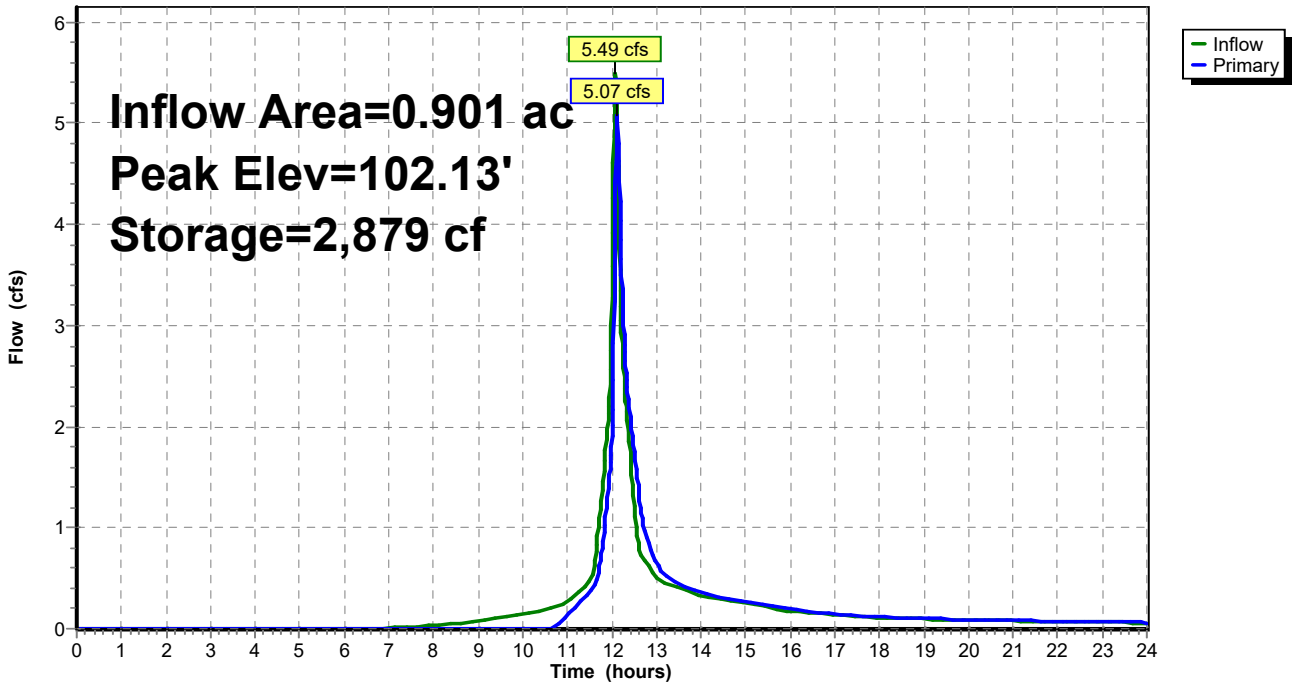
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
101.00	1,810	0	0
102.00	3,088	2,449	2,449
103.00	5,000	4,044	6,493

Device	Routing	Invert	Outlet Devices
#1	Primary	101.50'	**2.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	102.00'	**14.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=5.06 cfs @ 12.12 hrs HW=102.13' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 3.15 cfs @ 2.48 fps)
2=Broad-Crested Rectangular Weir (Weir Controls 1.92 cfs @ 1.02 fps)

Pond P-1: Bio P-1

Hydrograph



Summary for Pond P-3: Detention P-3

Inflow Area = 2.812 ac, 52.28% Impervious, Inflow Depth > 5.45" for 100-Year event
Inflow = 17.10 cfs @ 12.10 hrs, Volume= 1.278 af
Outflow = 12.58 cfs @ 12.17 hrs, Volume= 1.272 af, Atten= 26%, Lag= 4.7 min
Primary = 12.58 cfs @ 12.17 hrs, Volume= 1.272 af
Routed to Link PDP-1 : PDP-1

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 98.40' @ 12.17 hrs Surf.Area= 0.059 ac Storage= 0.174 af

Plug-Flow detention time= 16.8 min calculated for 1.272 af (100% of inflow)
Center-of-Mass det. time= 14.3 min (819.5 - 805.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	94.00'	0.084 af	**22.75'W x 113.25'L x 5.50'H Field A** 0.325 af Overall - 0.116 af Embedded = 0.210 af x 40.0% Voids
#2A	94.75'	0.116 af	**ADS_StormTech MC-3500 d +Cap**x 45 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 45 Chambers in 3 Rows Cap Storage= 14.9 cf x 2 x 3 rows = 89.4 cf
		0.200 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	94.00'	**18.0" Round Culvert** L= 45.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 94.00' / 93.50' S= 0.0111 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	94.00'	**4.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	95.00'	**22.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	97.75'	**24.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Device 1	99.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=12.56 cfs @ 12.17 hrs HW=98.40' (Free Discharge)
└**1=Culvert** (Passes 12.56 cfs of 16.26 cfs potential flow)
├**2=Orifice/Grate** (Orifice Controls 1.73 cfs @ 9.91 fps)
├**3=Orifice/Grate** (Orifice Controls 7.83 cfs @ 8.55 fps)
├**4=Orifice/Grate** (Orifice Controls 3.00 cfs @ 3.00 fps)
└**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond P-3: Detention P-3 - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= 14.9 cf x 2 x 3 rows = 89.4 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

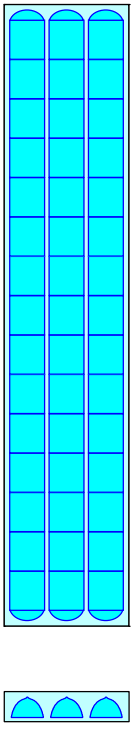
15 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 111.25' Row Length +12.0" End Stone x 2 = 113.25' Base Length
3 Rows x 77.0" Wide + 9.0" Spacing x 2 + 12.0" Side Stone x 2 = 22.75' Base Width
9.0" Stone Base + 45.0" Chamber Height + 12.0" Stone Cover = 5.50' Field Height

45 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 3 Rows = 5,037.2 cf Chamber Storage

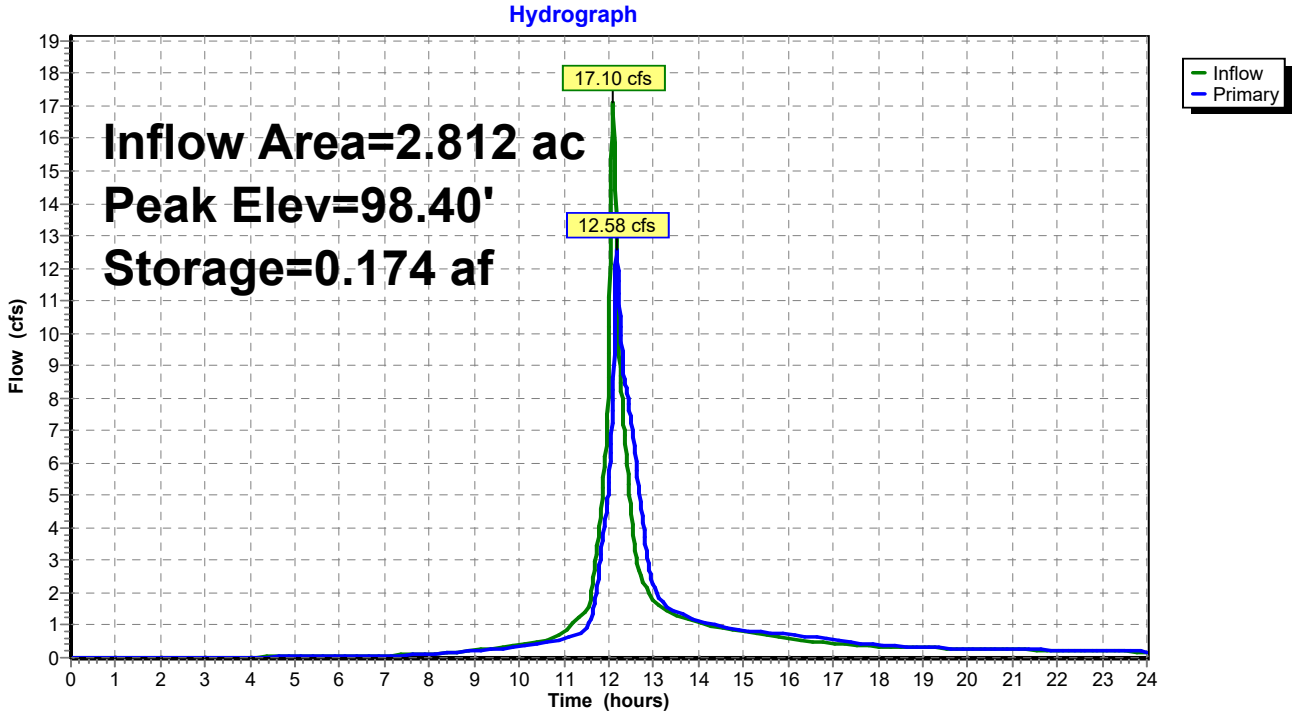
14,170.4 cf Field - 5,037.2 cf Chambers = 9,133.2 cf Stone x 40.0% Voids = 3,653.3 cf Stone Storage

Chamber Storage + Stone Storage = 8,690.5 cf = 0.200 af
Overall Storage Efficiency = 61.3%
Overall System Size = 113.25' x 22.75' x 5.50'

45 Chambers
524.8 cy Field
338.3 cy Stone



Pond P-3: Detention P-3

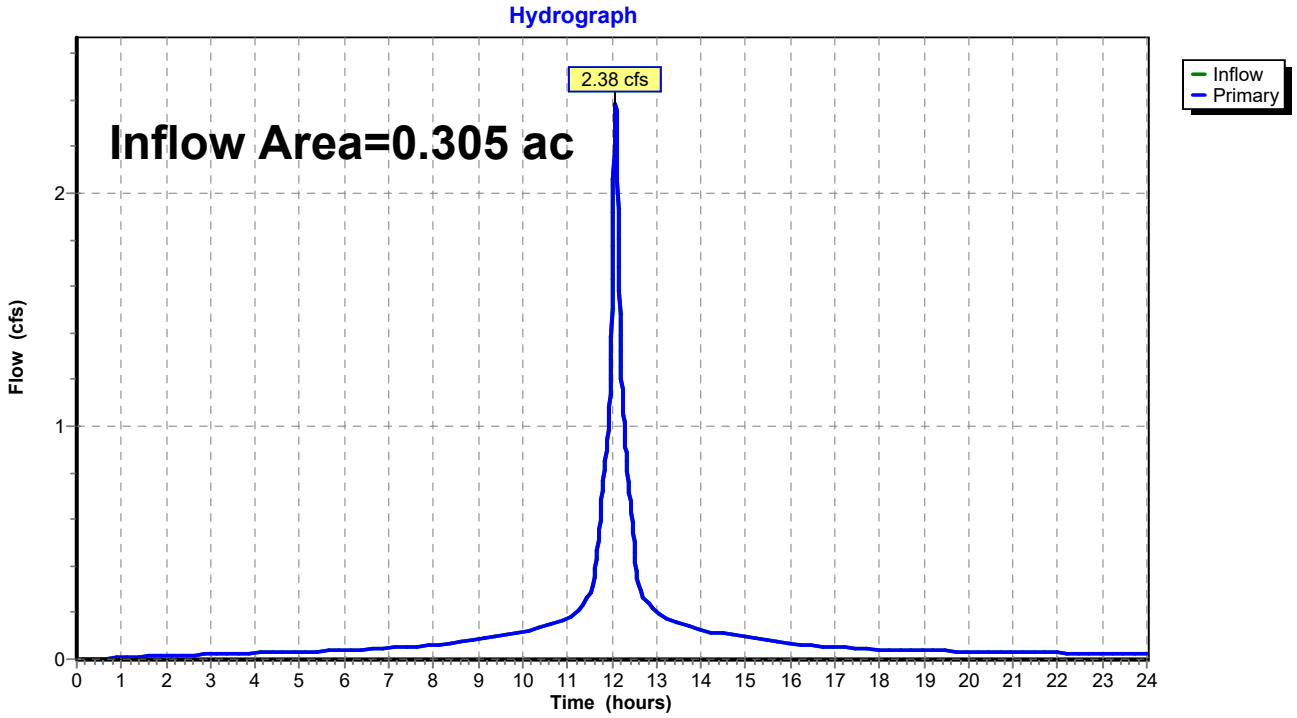


Summary for Pond SC-1: Swirl Chamber

Inflow Area = 0.305 ac,100.00% Impervious, Inflow Depth > 7.71" for 100-Year event
Inflow = 2.38 cfs @ 12.08 hrs, Volume= 0.196 af
Primary = 2.38 cfs @ 12.08 hrs, Volume= 0.196 af, Atten= 0%, Lag= 0.0 min
Routed to Pond P-3 : Detention P-3

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Pond SC-1: Swirl Chamber

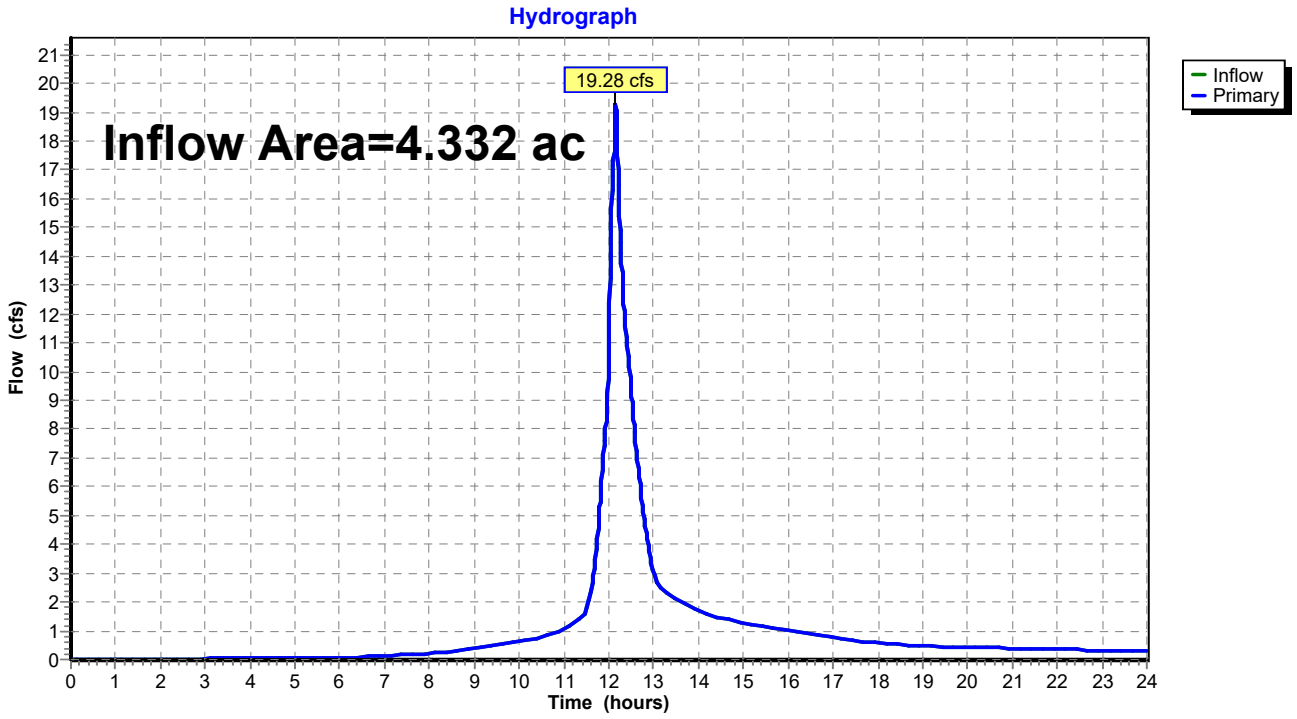


Summary for Link PDP-1: PDP-1

Inflow Area = 4.332 ac, 50.48% Impervious, Inflow Depth > 5.43" for 100-Year event
Inflow = 19.28 cfs @ 12.15 hrs, Volume= 1.960 af
Primary = 19.28 cfs @ 12.15 hrs, Volume= 1.960 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link PDP-1: PDP-1



Version 1.8
Last Updated: 11/09/2015

Total Water Quality Volume Calculation
WQv(acre-feet) = [(P)(Rv)(A)] /12

Is this project subject to Chapter 10 of the NYS Design Manual (i.e. WQv is equal to post-development 1 year runoff volume)?	No
Design Point:	1
P=	1.40 *inch*

Manually enter P, Total Area and Impervious Cover.

Breakdown of Subcatchments

Catchment Number	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Rv	WQv *(ft^3)*	Description
1	0.39	0.39	100%	0.95	1,883	Bio P-1
2						
3						
4						
5						
6						
7						
8						
9						
10						
Subtotal (1-30)	0.39	0.39	100%	0.95	**1,883**	**Subtotal 1**
Total	0.39	0.39	100%	0.95	**1,883**	**Initial WQv**	**0.04**	**af**

Identify Runoff Reduction Techniques By Area

Technique	Total Contributing Area *(Acre)*	Contributing Impervious Area *(Acre)*	Notes
Conservation of Natural Areas	0.00	0.00	*minimum 10,000 sf*
Riparian Buffers	0.00	0.00	*maximum contributing length 75 feet to 150 feet*
Filter Strips	0.00	0.00	
Tree Planting	0.00	0.00	*Up to 100 sf directly connected impervious area may be subtracted per*
Total	**0.00**	**0.00**	

Recalculate WQv after application of Area Reduction Techniques

	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Runoff Coefficient Rv	WQv *(ft^3)*		
"<<Initial WQv"	0.39	0.39	100%	0.95	1,883		
Subtract Area	0.00	0.00					
WQv adjusted after Area Reductions	**0.39**	**0.39**	100%	0.95	1,883		
Disconnection of Rooftops		0.00					
Adjusted WQv after Area Reduction and Rooftop Disconnect	0.39	0.39	100%	0.95	**1,883**	**0.04**	**af**
WQv reduced by Area Reduction techniques					0	**0.00**	**af**

Version 1.8
Last Updated: 11/09/2015

Total Water Quality Volume Calculation
WQv(acre-feet) = [(P)(Rv)(A)] /12

(For use on HSG C or D Soils with underdrains)

Af=WQv*(df)/[k*(hf+df)(tf)]

Af	Required Surface Area (ft2)
WQv	Water Quality Volume (ft3)
df	Depth of the Soil Medium (feet)
hf	Average height of water above the planter bed
tf	Volume Through the Filter Media (days)

k — The hydraulic conductivity [ft/day], can be varied depending on the properties of the soil media. Some reported conductivity values are: ***Sand*** - 3.5 ft/day (City of Austin 1988); ***Peat*** - 2.0 ft/day (Galli 1990); ***Leaf Compost*** - 8.7 ft/day (Claytor and Schueler, 1996); ***Bioretention Soil*** (0.5 ft/day (Claytor & Schueler, 1996)

Design Point:	**1**

Enter Site Data For Drainage Area to be Treated by Practice							
Catchment Number	**Total Area** *(Acres)*	**Impervious Area** *(Acres)*	**Percent Impervious** *%*	**Rv**	**WQv** *(ft^3)*	**Precipitation** *(in)*	**Description**
1	0.39	0.39	1.00	0.95	1882.88	1.40	Bio P-1
Enter Impervious Area Reduced by Disconnection of Rooftops			100%	0.95	1,883	<<WQv after adjusting for Disconnected Rooftops	
Enter the portion of the WQv that is not reduced for all practices routed to this practice.					0	ft^3	

Soil Information			
Soil Group	B		
Soil Infiltration Rate	0.00	*in/hour*	*Okay*
Using Underdrains?	Yes	*Okay*	

Calculate the Minimum Filter Area				
		Value	Units	Notes
WQv		1,883	ft^3	
Enter Depth of Soil Media	*df*	2.5	*ft*	*2.5-4 ft*
Enter Hydraulic Conductivity	*k*	0.5	*ft/day*	
Enter Average Height of Ponding	*hf*	0.25	*ft*	*6 inches max.*
Enter Filter Time	*tf*	2	*days*	
Required Filter Area	***Af***	**1712**	ft^2	

Determine Actual Bio-Retention Area			
Filter Width	1810	*ft*	
Filter Length	1	*ft*	
Filter Area	1810	ft^2	
Actual Volume Provided	1991	ft^3	

Determine Runoff Reduction			
Is the Bioretention contributing flow to another practice?	No	Select Practice	
RRv	796		
RRv applied	**796**	ft^3	***This is 40% of the storage provided or WQv whichever is less.***
Volume Treated	1,086	ft^3	*This is the portion of the WQv that is not reduced in the practice.*
Volume Directed	0	ft^3	This volume is directed another practice
Sizing √	OK		*Check to be sure Area provided ≥ Af*

APPLICATION FOR SITE PLAN APPROVAL

Submit to Planning Board Secretary, One Municipal Plaza, Suite One, Beacon, New York 12508

IDENTIFICATION OF APPLICANT

Name: Beekman Arts Center LLC & Bay Ridge Studios LLC

Address: 268 Main Street

Beacon NY 12508

Signature:

Date: 1/30/24

Phone: 917-468-8473

(For Official Use Only)

	Date	Initials
Application & Fee Rec'd		
Initial Review		
Public Hearing		
Conditional Approval		
Final Approval		

IDENTIFICATION OF REPRESENTATIVE / DESIGN PRFESSIONAL

Name: Taylor M. Palmer, Esq. - Cuddy & Feder LLP
Attorney for the Applicant

Address: 300 Westage Business Center, Suite 380

Fishkill, NY 12524

Phone: 914-761-1300

Fax: 914-761-5378

Email address: tpalmer@cuddyfeder.com

IDENTIFICATION OF SUBJECT PROPERTY:

Property Address: 45 Beekman Street, High Street and High Street

Tax Map Designation: Section 5955 Block 19 26 Lot(s) 706012 781983 & 689990

Land Area: 1.78 +/- acres

Zoning District(s) L, RMF-1.5 and HDLO

DESCRIPTION OF PROPOSED DEVELOPMENT:

Proposed Use: Mixed-use development comprised of apartments and commercial space

Gross Non-Residential Floor Space: Existing 15,190 sf Proposed 12,600 sf

TOTAL: 12,600 sf

Dwelling Units (by type): Existing 0 Proposed 64

TOTAL: 64

ITEMS TO ACCOMPANY THIS APPLICATION

a. One electronic and five (5) **folded** paper copies of a site location sketch showing the location of the subject property and the proposed development with respect to neighboring properties and developments.
b. One electronic and five (5) **folded** paper copies of the proposed site development plan, consisting of sheets, showing the required information as set forth on the back of this form and other such information as deemed necessary by the City Council or the Planning Board to determine and provide for the property enforcement of the Zoning Ordinance.
c. One electronic and five (5) **folded** paper copies of additional sketches, renderings or other information.
d. An application fee, payable to the City of Beacon, computed per the attached fee schedule.
e. An initial escrow amount, payable to the City of Beacon, as set forth in the attached fee schedule.

INFORMATION TO BE SHOWN ON SITE LOCATION SKETCH

a. Property lines, zoning district boundaries and special district boundaries affecting all adjoining streets and properties, including properties located on the opposite sides of adjoining streets.
b. Any reservations, easements or other areas of public or special use which affect the subject property.
c. Section, block and lot numbers written on the subject property and all adjoining properties, including the names of the record owners of such adjoining properties.

INFORMATION TO BE SHOWN ON THE SITE DEVELOPMENT PLAN

a. Title of development, date and revision dates if any, north point, scale, name and address of record owner of property, and of the licensed engineer, architect, landscape architect, or surveyor preparing the site plan.
b. Existing and proposed contours at a maximum vertical interval of two (2) feet.
c. Location and identification of natural features including rock outcrops, wooded areas, single trees with a caliper of six (6) or more inches measured four (4) feet above existing grade, water bodies, water courses, wetlands, soil types, etc.
d. Location and dimensions of all existing and proposed buildings, retaining walls, fences, septic fields, etc.
e. Finished floor level elevations and heights of all existing and proposed buildings.
f. Location, design, elevations, and pavement and curbing specifications, including pavement markings, of all existing and proposed sidewalks, and parking and truck loading areas, including access and egress drives thereto.
g. Existing pavement and elevations of abutting streets, and proposed modifications.
h. Location, type and design of all existing and proposed storm drainage facilities, including computation of present and estimated future runoff of the entire tributary watershed, at a maximum density permitted under existing zoning, based on a 100 year storm.
i. Location and design of all existing and proposed water supply and sewage disposal facilities.
j. Location of all existing and proposed power and telephone lines and equipment, including that located within the adjoining street right-of-way. All such lines and equipment must be installed underground.
k. Estimate of earth work, including type and quantities of material to be imported to or removed from the site.
l. Detailed landscape plan, including the type, size, and location of materials to be used.
m. Location, size, type, power, direction, shielding, and hours of operation of all existing and proposed lighting facilities.
n. Location, size, type, and design of all existing and proposed business and directional signs.
o. Written dimensions shall be used wherever possible.
p. Signature and seal of licensed professional preparing the plan shall appear on each sheet.
q. Statement of approval, in blank, as follows:

Approved by Resolution of the Beacon Planning Board
on the _____ day of _____, 20_____
subject to all conditions as stated therein

_____ _____
Chairman, City Planning Board **Date**

APPLICATION FEES

Site Plan	**Residential $500 + $250 per dwelling unit** **Commercial $500 + $250 per 1,000 s.f.**
Special Use Permit	**Residential $500 + $250 per dwelling unit** **Commercial $500 + $250 per 1,000 s.f.**
Subdivision	**$ 750 for 2-4 lots + $100 per lot** **$1,000 for 5 or more lots + $300 per lot**

ESCROW FEES

ALL SUBDIVISIONS, AND RESIDENTIAL SITE PLAN AND SUP APPLICATIONS

No. of Lots or Dwelling Units	Initial Deposit	Depleted to	Replenishment
1-5 (including lot-line realignment)	$ 3,000	$ 1,000	Current bills + $1,200
6-15	$ 9,000	$ 2,500	Current bills + $1,200
Over 15	$ 18,000	$ 5,000	Current bills + $6,000

NON-RESIDENTIAL SITE PLAN AND SUP APPLICATIONS

	Initial Deposit	Depleted to	Replenishment
Existing Buildings/Change of Use with no site development	$ 1,800	$ 1,000	Current bills + $600
Up to 3,000 s.f. gross floor area	$ 3,125	$ 1,000	Current bills + $1,200
3,000 to 10,000 s.f. gross floor area	$ 3,000 + $0.50 per sq.ft. over 3,000	$ 2,500	Current bills + $3,000
Over 10,000 s.f. gross floor area	$ 9,000 + $0.50 per sq.ft. over 10,000	$ 2,500	Current bills + $3,000

ARCHITECTURAL REVIEW OR CERTIFICATE OF APPROPRIATENESS ***(if not currently before PB)***

* *if required by Chairman*	Initial Deposit	Depleted to	Replenishment
Single Family House*	$500	$250	Current bills + $250
All others*	$500	$250	Current bills + $250

CITY OF BEACON
SITE PLAN SPECIFICATION FORM

Name of Application: 45 Beekman & High Street Subdivision and Site Plan Application

PLEASE INDICATE WHETHER THE SITE PLAN DRAWINGS SHOW THE SUBJECT INFORMATION BY PLACING A CHECK MARK IN THE APPROPRIATE BOXES BELOW.		
	YES	**NO**
The site plan shall be clearly marked "Site Plan", it shall be prepared by a legally certified individual of firm, such as a Registered Architect or Professional Engineer, and it shall contain the following information:		
LEGAL DATA		
Name and address of the owner of record.		
Name and address of the applicant (if other than the owner).		
Name and address of person, firm or organization preparing the plan.		
Date, north arrow, and written and graphic scale.		
NATURAL FEATURES		
Existing contours with intervals of two (2) feet, referred to a datum satisfactory to the Planning Board.		
Approximate boundaries of any areas subject to flooding or stormwater overflows.		
Location of existing watercourses, wetlands, wooded areas, rock outcrops, isolated trees with a diameter of eight (8) inches or more measured three (3) feet above the base of the trunk, and any other significant existing natural features.		
EXISTING STRUCTURES, UTILITIES, ETC.		
Outlines of all structures and the location of all uses not requiring structures. Paved areas, sidewalks, and vehicular access between the site and public streets.		
Locations, dimensions, grades, and flow direction of any existing sewers, culverts, water lines, as well as other underground and above ground utilities within and adjacent to the property.		
Other existing development, including fences, retaining walls, landscaping, and screening.		
Sufficient description or information to define precisely the boundaries of the property.		
The owners of all adjoining lands as shown on the latest tax records.		
The locations, names, and existing widths of adjacent streets and curb lines.		
Location, width, and purpose of all existing and proposed easements, setbacks, reservations, and areas dedicated to private or public use within or adjacent to the		

properties.		
PROPOSED DEVELOPMENT	**YES**	**NO**
The location, use and design of proposed buildings or structural improvements.		
The location and design of all uses not requiring structures, such as outdoor storage (if permitted), and off-street parking and unloading areas.		
Any proposed division of buildings into units of separate occupancy.		
The location, direction, power, and time of use for any proposed outdoor lighting.		
The location and plans for any outdoor signs.		
The location, arrangement, size(s) and materials of proposed means of ingress and egress, including sidewalks, driveways, or other paved areas.		
Proposed screening and other landscaping including a planting plan and schedule prepared by a qualified individual or firm.		
The location, sizes and connection of all proposed water lines, valves, and hydrants and all storm drainage and sewer lines, culverts, drains, etc.		
Proposed easements, deed restrictions, or covenants and a notation of any areas to be dedicated to the City.		
Any contemplated public improvements on or adjoining the property.		
Any proposed new grades, indicating clearly how such grades will meet existing grades of adjacent properties or the street.		
Elevations of all proposed principal or accessory structures.		
Any proposed fences or retaining walls.		
MISCELLANEOUS		
A location map showing the applicant's entire property and adjacent properties and streets, at a convenient scale.		
Erosion and sedimentation control measures.		
A schedule indicating how the proposal complies with all pertinent zoning standards, including parking and loading requirements.		
An indication of proposed hours of operation.		
If the site plan only indicates a first stage, a supplementary plan shall indicate ultimate development.		

For all items marked "NO" above, please explain below why the required information has not been provided:

Please see enclosed Application Narrative

Applicant/Sponsor Name: Beekman Arts Center LLC & Bay Ridge Studios LLC

Signature:

By: Saleh Hassen, Member

Date: November 21, 2023

APPLICATION PROCESSING RESTRICTION LAW

Affidavit of Property Owner

Property Owner: Beekman Arts Center LLC

If owned by a corporation, partnership or organization, please list names of persons holding over 5% interest.

Abdel Hassen, Saleh Hassen and Sam Hassen

List all properties in the City of Beacon that you hold a 5% interest in:

45 Beekman (5955-19-706012)

Applicant Address: 268 Main Street, Beacon NY 12508

Project Address: 45 Beekman and High Street

Project Tax Grid # 5955-19-706012; 5954-26-68990 and 5954-26-781983

Type of Application Subdivision and Site Plan Application

Please note that the property owner is the applicant. "Applicant" is defined as any individual who owns at least five percent (5%) interest in a corporation or partnership or other business.

I, Saleh Hassen, Member of Beekman Arts Center LLC, the undersigned owner of the above referenced property, hereby affirm that I have reviewed my records and verify that the following information is true.

1. No violations are pending for ANY parcel owned by me situated within the City of Beacon — X
2. Violations are pending on a parcel or parcels owned by me situated within the City of Beacon — N/A
3. ALL tax payments due to the City of Beacon are current — X
4. Tax delinquencies exist on a parcel or parcels owned by me within the City of Beacon — N/A
5. Special Assessments are outstanding on a parcel or parcels owned by me in the City of Beacon — N/A
6. ALL Special Assessments due to the City of Beacon on any parcel owned by me are current — X

Signature of Owner

Beekman Arts Center LLC
Saleh Hassen, Member

Title if owner is corporation

Office Use Only:	NO	YES	Initial
Applicant has violations pending for ANY parcel owned within the City of Beacon (Building Dept.)	___	___	_____
ALL taxes are current for properties in the City of Beacon are current (Tax Dept.)	___	___	_____
ALL Special Assessments, i.e. water, sewer, fines, etc. are current (Water Billing)	___	___	_____

APPLICATION PROCESSING RESTRICTION LAW

Affidavit of Property Owner

Property Owner: Bay Ridge Studios LLC

If owned by a corporation, partnership or organization, please list names of persons holding over 5% interest.

Abdel Hassen, Saleh Hassen and Sam Hassen

List all properties in the City of Beacon that you hold a 5% interest in:

High Street & High Street (5954-26-68990 and 5954-26-781983)

Applicant Address: 268 Main Street, Beacon NY 12508

Project Address: 45 Beekman and High Street

Project Tax Grid # 5955-19-706012; 5954-26-68990 and 5954-26-781983

Type of Application Subdivision and Site Plan Application

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2. Violations are pending on a parcel or parcels owned by me situated within the City of Beacon — N/A
3. ALL tax payments due to the City of Beacon are current — X
4. Tax delinquencies exist on a parcel or parcels owned by me within the City of Beacon — N/A
5. Special Assessments are outstanding on a parcel or parcels owned by me in the City of Beacon — N/A
6. ALL Special Assessments due to the City of Beacon on any parcel owned by me are current — X

Signature of Owner Bay Ridge Studios LLC

Saleh Hassen, Member

Title if owner is corporation

Office Use Only:	NO	YES	Initial
Applicant has violations pending for ANY parcel owned within the City of Beacon (Building Dept.)	___	___	_____
ALL taxes are current for properties in the City of Beacon are current (Tax Dept.)	___	___	_____
ALL Special Assessments, i.e. water, sewer, fines, etc. are current (Water Billing)	___	___	_____

FOR OFFICE USE ONLY
Application #

CITY OF BEACON
1 Municipal Plaza, Beacon, NY
Telephone (845) 838-5000 • http://beaconny.gov/

ENTITY DISCLOSURE FORM

(This form must accompany every land use application and every application for a building permit or certificate of occupancy submitted by any entity)

Disclosure of the names and addresses of all persons or entities owning any interest or controlling position of any Limited Liability Company, Partnership, Limited Partnership, Joint Venture, Corporation or other business entity (hereinafter referred to as the "Entity") filing a land-use application with the City is required pursuant to Section 223-61.4 of the City Code of the City of Beacon. If any Member of the Entity is not a natural person, then the names and addresses as well as all other information sought herein must be supplied about the non-natural person member of that Entity, including names, addresses and Formation filing documents. Applicants shall submit supplemental sheets for any additional information that does not fit within the below sections, identifying the Section being supplemented.

SECTION A.

IF AFFIANT IS A PARTNERSHIP, JOINT VENTURE OR OTHER BUSINESS ENTITY, EXCEPT A CORPORATION:

Name of Entity	Address of Entity
Beekman Arts Center LLC	268 Main Street Beacon NY 12508
Place where such business entity was created New York State DOS	Official Registrar's or Clerk's office where the documents and papers creating entity were filed New York State DOS
Date such business entity or partnership was created 4/6/2018	Telephone Contact Information 917-468-8473

IF AFFIANT IS A CORPORATION:

Name of Entity	Telephone Contact Information
Principal Place of Business of Entity	Place and Date of incorporation
Method of Incorporation	Official place where the documents and papers of incorporation were filed

SECTION B. List all persons, officers, limited or general partners, directors, members, shareholders, managers, and any others with any interest, mortgage, encumbrance or other interest (recorded or unrecorded) in or with the above referenced

Entity. List all persons to whom corporate stock has been pledged, mortgaged or encumbered and with whom any agreement has been made to pledge, mortgage or encumber said stock. Use a supplemental sheet to list additional persons.

Name	Resident Address	Resident Telephone Number	Nature and Extent of Interest
Abdel Hassen	153-12 80th St. Howard Beach, NY 11414	917-468-8473	50%
Saleh Hassen	157-44 84th St. Howard Beach, NY 11414	917-468-8473	25%
Sam Hassen	164-40 88th St Howard Beach, NY 11414	917-560-4026	25%

SECTION C. List all owners of record of the subject property or any part thereof.

Name	Residence or Business Address	Telephone Number	Date and Manner title was acquired	Date and place where the deed or document of conveyance was recorded or filed.
Beekman Arts Center LLC	268 Main Street Beacon NY 12508	(917)468-8473	Deed dated 1/18/2017	Recorded 2/8/2017 Dutchess County Clerk

SECTION D. Is any owner, of record or otherwise, an officer, director, stockholder, agent or employee of any person listed in Section B-C?

☐ **YES** ☒ **NO**

Name	**Employer**	**Position**

SECTION E. Is any party identified in Sections A- C an officer, elected or appointed, or employee of the City of Beacon or related, by marriage or otherwise, to a City Council member, planning board member, zoning board of appeals member or employee of the City of Beacon ?

☐ **YES** ☒ **NO**

If yes, list every Board, Department, Office, agency or other position with the City of Beacon with which a party has a position, unpaid or paid, or relationship and identify the agency, title, and date of hire.

Agency	**Title**	**Date of Hire, Date Elected, or Date Appointed**	**Position or Nature of Relationship**

SECTION F. Was any person referred to in Sections A-D known by any other name within five (5) years preceding the date of the application?

☐ **YES** ☒ **NO**

Current Name	**Other Names**

SECTION G. List the names and addresses of each person, business entity, partnership and corporation in the chain of title of the subject premises for the five (5) years next preceding the date of the application.

Name	**Address**
Beekman Art Center LLC	268 Main Street Beacon NY 12508 Deed Doc# 02-2017-1113

SECTION H. If the applicant is not a record owner of the subject property, describe the applicant's interest in the subject property and the relationship the applicant has to the record owner(s) of the subject property.

N/A

SECTION I. If the applicant is a contract vendee, a duplicate original or photocopy of the full and complete contract of purchase, including all riders, modification and amendments thereto, shall be submitted with the application. Any sensitive or confidential information may be redacted from the contract prior to production.

SECTION J. N/A

1. Where the record owner or contract vendee is a corporation, the following additional information shall be submitted**:**

Name of the Corporation	Telephone Contact Information
Principal Business Address	Place and Date of Incorporation
Method of Incorporation	Official place where the documents and papers of incorporation were filed

2. Please provide the following information for every incorporator, officer, director and shareholder of the corporation.

Name	**Residence or business address**	**Telephone number**

3. Have any shares of the stock of the corporation or of any stockholder been pledged, mortgaged or encumbered?

☐ **YES** ☐ **NO**

If so, please list the name and address of each person having, holding, owning or claiming any such interest.

Name	**Address**

SECTION K. Have the present owners entered into a contract for the sale of all or any part of the subject property and, if in the affirmative, please provide a duplicate original or photocopy of the fully and complete contract of sale, including all riders, modifications and amendments thereto.

☐ **YES** ☒ **NO**

I, Saleh Hassen being first duly sworn, according to law, deposes and says that I am (Title) Member, an active and qualified member of the Beekman Arts Center LLC, a business duly authorized by law to do business in the State of New York, and that the statements made herein are true, accurate, and complete.

Saleh Hassen, Member

(Print) _____

Beekman Arts Center LLC

(Signature) _____

FOR OFFICE USE ONLY
Application #

CITY OF BEACON
1 Municipal Plaza, Beacon, NY
Telephone (845) 838-5000 • http://beaconny.gov/

ENTITY DISCLOSURE FORM

(This form must accompany every land use application and every application for a building permit or certificate of occupancy submitted by any entity)

Disclosure of the names and addresses of all persons or entities owning any interest or controlling position of any Limited Liability Company, Partnership, Limited Partnership, Joint Venture, Corporation or other business entity (hereinafter referred to as the "Entity") filing a land-use application with the City is required pursuant to Section 223-61.4 of the City Code of the City of Beacon. If any Member of the Entity is not a natural person, then the names and addresses as well as all other information sought herein must be supplied about the non-natural person member of that Entity, including names, addresses and Formation filing documents. Applicants shall submit supplemental sheets for any additional information that does not fit within the below sections, identifying the Section being supplemented.

SECTION A.

IF AFFIANT IS A PARTNERSHIP, JOINT VENTURE OR OTHER BUSINESS ENTITY, EXCEPT A CORPORATION:

Name of Entity	Address of Entity
Bay Ridge Studios LLC	268 Main Street Beacon NY 12508
Place where such business entity was created New York State DOS	Official Registrar's or Clerk's office where the documents and papers creating entity were filed New York State DOS
Date such business entity or partnership was created 7/18/2018	Telephone Contact Information 917-468-8473

IF AFFIANT IS A CORPORATION:

Name of Entity	Telephone Contact Information
Principal Place of Business of Entity	Place and Date of incorporation
Method of Incorporation	Official place where the documents and papers of incorporation were filed

SECTION B. List all persons, officers, limited or general partners, directors, members, shareholders, managers, and any others with any interest, mortgage, encumbrance or other interest (recorded or unrecorded) in or with the above referenced

Entity. List all persons to whom corporate stock has been pledged, mortgaged or encumbered and with whom any agreement has been made to pledge, mortgage or encumber said stock. Use a supplemental sheet to list additional persons.

Name	Resident Address	Resident Telephone Number	Nature and Extent of Interest
Abdel Hassen	153-12 80th St. Howard Beach, NY 11414	917-468-8473	50%
Saleh Hassen	157-44 84th St. Howard Beach, NY 11414	917-468-8473	25%
Sam Hassen	164-40 88th St Howard Beach, NY 11414	917-560-4026	25%

SECTION C. List all owners of record of the subject property or any part thereof.

Name	Residence or Business Address	Telephone Number	Date and Manner title was acquired	Date and place where the deed or document of conveyance was recorded or filed.
Bay Ridge Studios LLC	268 Main Street Beacon NY 12508	917-468-8473	Deed dated 12/31/2001	Recorded 2/3/2022 Dutchess County Clerk

SECTION D. Is any owner, of record or otherwise, an officer, director, stockholder, agent or employee of any person listed in Section B-C?

☐ **YES** ☒ **NO**

Name	**Employer**	**Position**

SECTION E. Is any party identified in Sections A- C an officer, elected or appointed, or employee of the City of Beacon or related, by marriage or otherwise, to a City Council member, planning board member, zoning board of appeals member or employee of the City of Beacon ?

☐ **YES** ☒ **NO**

If yes, list every Board, Department, Office, agency or other position with the City of Beacon with which a party has a position, unpaid or paid, or relationship and identify the agency, title, and date of hire.

Agency	**Title**	**Date of Hire, Date Elected, or Date Appointed**	**Position or Nature of Relationship**

SECTION F. Was any person referred to in Sections A-D known by any other name within five (5) years preceding the date of the application?

☐ **YES** ☒ **NO**

Current Name	**Other Names**

SECTION G. List the names and addresses of each person, business entity, partnership and corporation in the chain of title of the subject premises for the five (5) years next preceding the date of the application.

Name	**Address**	
Bay Ridge Studios LLC	268 Main Street Beacon NY 12508	Deed Doc# 02-2019-1172
William F. Vassalo	15 Sunset Hill Road Fishkill, NY 12524	Deed Doc# 02-2002-90

SECTION H. If the applicant is not a record owner of the subject property, describe the applicant's interest in the subject property and the relationship the applicant has to the record owner(s) of the subject property.

N/A

SECTION I. If the applicant is a contract vendee, a duplicate original or photocopy of the full and complete contract of purchase, including all riders, modification and amendments thereto, shall be submitted with the application. Any sensitive or confidential information may be redacted from the contract prior to production.

SECTION J. N/A

1. Where the record owner or contract vendee is a corporation, the following additional information shall be submitted**:**

Name of the Corporation	Telephone Contact Information
Principal Business Address	Place and Date of Incorporation
Method of Incorporation	Official place where the documents and papers of incorporation were filed

2. Please provide the following information for every incorporator, officer, director and shareholder of the corporation.

Name	**Residence or business address**	**Telephone number**

3. Have any shares of the stock of the corporation or of any stockholder been pledged, mortgaged or encumbered?

☐ **YES** ☐ **NO**

If so, please list the name and address of each person having, holding, owning or claiming any such interest.

Name	**Address**

SECTION K. Have the present owners entered into a contract for the sale of all or any part of the subject property and, if in the affirmative, please provide a duplicate original or photocopy of the fully and complete contract of sale, including all riders, modifications and amendments thereto.

☐ **YES** ☒ **NO**

I, Saleh Hassen being first duly sworn, according to law, deposes and says that I am (Title) Member, an active and qualified member of the Bay Ridge Studios LLC, a business duly authorized by law to do business in the State of New York, and that the statements made herein are true, accurate, and complete.

(Print) Saleh Hassen, Member

Bay Ridge Studios LLC

(Signature) _____

Full Environmental Assessment Form
Part 1 - Project and Setting

Instructions for Completing Part 1

Part 1 is to be completed by the applicant or project sponsor. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification.

Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information; indicate whether missing information does not exist, or is not reasonably available to the sponsor; and, when possible, generally describe work or studies which would be necessary to update or fully develop that information.

Applicants/sponsors must complete all items in Sections A & B. In Sections C, D & E, most items contain an initial question that must be answered either "Yes" or "No". If the answer to the initial question is "Yes", complete the sub-questions that follow. If the answer to the initial question is "No", proceed to the next question. Section F allows the project sponsor to identify and attach any additional information. Section G requires the name and signature of the applicant or project sponsor to verify that the information contained in Part 1is accurate and complete.

A. Project and Applicant/Sponsor Information.

Name of Action or Project: 45 Beekman Street Mixed-Use Development - Application for Site Plan and Subdivision Approval		
Project Location (describe, and attach a general location map): 45 Beekman Street & High Street, Beacon, NY 12508		
Brief Description of Proposed Action (include purpose or need): Application for Site Plan and Subdivision approval to construct two (2) 4-story mixed-use buildings with ground floor commercial space and multi-family residential units in place of the existing commercial building on the 45 Beekman parcel. The High Street parcels are vacant. The building proposed on the current 45 Beekman Street lot will include 8,670 square feet commercial space on the first floor and a total of 36 dwelling units. The building proposed on the current High Street lots will include 3,930 square feet commercial space on the first floor and a total of 28 dwelling units. These buildings will incorporate below market rate units in accordance with the City's Affordable-Workforce Housing local law. The project will include off-street surface and garage parking facilities (83 total spaces) using existing driveway connections to Tompkins Avenue and Beekman Street. The proposal also includes water and sanitary sewer service connections to City of Beacon mains, and stormwater management features necessary to support the development.		
Name of Applicant/Sponsor/Owner: Beekman Arts Center LLC & Bay Ridge Studios LLC	Telephone: 917-468-8473 E-Mail: nidalhassen7@gmail.com	
Address: 268 Main Street		
City/PO: Beacon	State: NY	Zip Code: 12508
Project Contact (if not same as sponsor; give name and title/role): Taylor Palmer, Esq., Cuddy & Feder LLP (Attorney for the Applicant)	Telephone: 914-761-1300 E-Mail: tpalmer@cuddyfeder.com	
Address: 445 Hamilton Avenue, Fl. 14		
City/PO: White Plains	State: NY	Zip Code: 10601
Property Owner (if not same as sponsor):	Telephone: E-Mail:	
Address:		
City/PO:	State:	Zip Code:

B. Government Approvals

B. Government Approvals, Funding, or Sponsorship. ("Funding" includes grants, loans, tax relief, and any other forms of financial assistance.)		
Government Entity	**If Yes: Identify Agency and Approval(s) Required**	**Application Date (Actual or projected)**
a. City Counsel, Town Board, or Village Board of Trustees ☐Yes☑No		
b. City, Town or Village Planning Board or Commission ☑Yes☐No	Planning Board: Site Plan, Subdivision, LWRP Consistency, COA	November 2023
c. City, Town or Village Zoning Board of Appeals ☐Yes☑No		
d. Other local agencies ☐Yes☑No		
e. County agencies ☑Yes☐No	Dutchess County Planning: GML referral Dutchess County Health: Water Extension	
f. Regional agencies ☐Yes☑No		
g. State agencies ☑Yes☐No	NYSDEC: Stormwater SPDES NYSDOT: Hwy. Work Permit, U&O & Utility Permit	
h. Federal agencies ☐Yes☑No		

i. Coastal Resources.
i. Is the project site within a Coastal Area, or the waterfront area of a Designated Inland Waterway? ☑Yes☐No

ii. Is the project site located in a community with an approved Local Waterfront Revitalization Program? ☑Yes☐No
iii. Is the project site within a Coastal Erosion Hazard Area? ☐Yes☑No

C. Planning and Zoning

C.1. Planning and zoning actions.

Will administrative or legislative adoption, or amendment of a plan, local law, ordinance, rule or regulation be the only approval(s) which must be granted to enable the proposed action to proceed? ☐Yes☑No

- **If Yes,** complete sections C, F and G.
- **If No,** proceed to question C.2 and complete all remaining sections and questions in Part 1

C.2. Adopted land use plans.

a. Do any municipally- adopted (city, town, village or county) comprehensive land use plan(s) include the site where the proposed action would be located? ☑Yes☐No

If Yes, does the comprehensive plan include specific recommendations for the site where the proposed action would be located? ☑Yes☐No

b. Is the site of the proposed action within any local or regional special planning district (for example: Greenway; Brownfield Opportunity Area (BOA); designated State or Federal heritage area; watershed management plan; or other?) ☐Yes☑No

If Yes, identify the plan(s):

c. Is the proposed action located wholly or partially within an area listed in an adopted municipal open space plan, or an adopted municipal farmland protection plan? ☐Yes☑No

If Yes, identify the plan(s):

C.3. Zoning

a. Is the site of the proposed action located in a municipality with an adopted zoning law or ordinance. ☑ Yes ☐ No
If Yes, what is the zoning classification(s) including any applicable overlay district?
Linkage District (L), One-Family Residential District (R1.75) and Historic District and Landmark Overlay District

b. Is the use permitted or allowed by a special or conditional use permit? ☐ Yes ☑ No

c. Is a zoning change requested as part of the proposed action? ☐ Yes ☑ No
If Yes,
i. What is the proposed new zoning for the site? _____

C.4. Existing community services.

a. In what school district is the project site located? Beacon City School District

b. What police or other public protection forces serve the project site?
City of Beacon Police Department

c. Which fire protection and emergency medical services serve the project site?
City of Beacon Fire Department

d. What parks serve the project site?
Pete & Toshi Seeger Riverfront Park, Long Dock Park, Memorial Park

D. Project Details

D.1. Proposed and Potential Development

a. What is the general nature of the proposed action (e.g., residential, industrial, commercial, recreational; if mixed, include all components)? Mixed-Use; commercial (office & retail) and multi-family residential

b. a. Total acreage of the site of the proposed action? 1.78 acres
b. Total acreage to be physically disturbed? +/- 2.4 acres acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 1.78 acres

c. Is the proposed action an expansion of an existing project or use? ☐ Yes ☑ No
i. If Yes, what is the approximate percentage of the proposed expansion and identify the units (e.g., acres, miles, housing units, square feet)? % _____ Units: _____

d. Is the proposed action a subdivision, or does it include a subdivision? ☑ Yes ☐ No
If Yes,
i. Purpose or type of subdivision? (e.g., residential, industrial, commercial; if mixed, specify types)
Lot line adjustment
ii. Is a cluster/conservation layout proposed? ☐ Yes ☑ No
iii. Number of lots proposed? 1
iv. Minimum and maximum proposed lot sizes? Minimum 1.78 Maximum 1.78

e. Will the proposed action be constructed in multiple phases? ☐ Yes ☑ No
i. If No, anticipated period of construction: ±18 months
ii. If Yes:
- Total number of phases anticipated _____
- Anticipated commencement date of phase 1 (including demolition) _____ month _____ year
- Anticipated completion date of final phase _____ month _____ year
- Generally describe connections or relationships among phases, including any contingencies where progress of one phase may determine timing or duration of future phases: _____

f. Does the project include new residential uses? ☑ Yes ☐ No

If Yes, show numbers of units proposed.

	One Family	Two Family	Three Family	Multiple Family (four or more)
Initial Phase				64 Units
At completion of all phases				64 Units

g. Does the proposed action include new non-residential construction (including expansions)? ☑ Yes ☐ No

If Yes,

i. Total number of structures 2

ii. Dimensions (in feet) of largest proposed structure: ≤48 height; 65 width; and 217 length

iii. Approximate extent of building space to be heated or cooled: ±86,000 square feet

h. Does the proposed action include construction or other activities that will result in the impoundment of any liquids, such as creation of a water supply, reservoir, pond, lake, waste lagoon or other storage? ☐ Yes ☑ No

If Yes,

i. Purpose of the impoundment: _____

ii. If a water impoundment, the principal source of the water: ☐ Ground water ☐ Surface water streams ☐ Other specify: _____

iii. If other than water, identify the type of impounded/contained liquids and their source. _____

iv. Approximate size of the proposed impoundment. Volume: _____ million gallons; surface area: _____ acres

v. Dimensions of the proposed dam or impounding structure: _____ height; _____ length

vi. Construction method/materials for the proposed dam or impounding structure (e.g., earth fill, rock, wood, concrete): _____

D.2. Project Operations

a. Does the proposed action include any excavation, mining, or dredging, during construction, operations, or both? (Not including general site preparation, grading or installation of utilities or foundations where all excavated materials will remain onsite) ☐ Yes ☑ No

If Yes:

i .What is the purpose of the excavation or dredging? _____

ii. How much material (including rock, earth, sediments, etc.) is proposed to be removed from the site?

- Volume (specify tons or cubic yards): _____
- Over what duration of time? _____

iii. Describe nature and characteristics of materials to be excavated or dredged, and plans to use, manage or dispose of them. _____

iv. Will there be onsite dewatering or processing of excavated materials? ☐ Yes ☐ No

If yes, describe. _____

v. What is the total area to be dredged or excavated? _____ acres

vi. What is the maximum area to be worked at any one time? _____ acres

vii. What would be the maximum depth of excavation or dredging? _____ feet

viii. Will the excavation require blasting? ☐ Yes ☐ No

ix. Summarize site reclamation goals and plan: _____

b. Would the proposed action cause or result in alteration of, increase or decrease in size of, or encroachment into any existing wetland, waterbody, shoreline, beach or adjacent area? ☐ Yes ☑ No

If Yes:

i. Identify the wetland or waterbody which would be affected (by name, water index number, wetland map number or geographic description): _____

ii. Describe how the proposed action would affect that waterbody or wetland, e.g. excavation, fill, placement of structures, or alteration of channels, banks and shorelines. Indicate extent of activities, alterations and additions in square feet or acres:

iii. Will the proposed action cause or result in disturbance to bottom sediments? ☐Yes ☐No
If Yes, describe:

iv. Will the proposed action cause or result in the destruction or removal of aquatic vegetation? ☐Yes ☐No
If Yes:

- acres of aquatic vegetation proposed to be removed:
- expected acreage of aquatic vegetation remaining after project completion:
- purpose of proposed removal (e.g. beach clearing, invasive species control, boat access):
- proposed method of plant removal:
- if chemical/herbicide treatment will be used, specify product(s):

v. Describe any proposed reclamation/mitigation following disturbance:

c. Will the proposed action use, or create a new demand for water? ☑Yes ☐No
If Yes:

i. Total anticipated water usage/demand per day: 11,910 gallons/day

ii. Will the proposed action obtain water from an existing public water supply? ☑Yes ☐No
If Yes:

- Name of district or service area: City of Beacon (PWS ID# 1302780)
- Does the existing public water supply have capacity to serve the proposal? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No
- Do existing lines serve the project site? ☑Yes ☐No

iii. Will line extension within an existing district be necessary to supply the project? ☐Yes ☑No
If Yes:

- Describe extensions or capacity expansions proposed to serve this project:
- Source(s) of supply for the district:

iv. Is a new water supply district or service area proposed to be formed to serve the project site? ☐Yes ☑No
If, Yes:

- Applicant/sponsor for new district:
- Date application submitted or anticipated:
- Proposed source(s) of supply for new district:

v. If a public water supply will not be used, describe plans to provide water supply for the project:
N/A

vi. If water supply will be from wells (public or private), what is the maximum pumping capacity: N/A gallons/minute.

d. Will the proposed action generate liquid wastes? ☑Yes ☐No
If Yes:

i. Total anticipated liquid waste generation per day: 11,910 gallons/day

ii. Nature of liquid wastes to be generated (e.g., sanitary wastewater, industrial; if combination, describe all components and approximate volumes or proportions of each):
Sanitary Wastewater

iii. Will the proposed action use any existing public wastewater treatment facilities? ☑Yes ☐No
If Yes:

- Name of wastewater treatment plant to be used: City of Beacon WWTP
- Name of district: City of Beacon
- Does the existing wastewater treatment plant have capacity to serve the project? ☑Yes ☐No
- Is the project site in the existing district? ☑Yes ☐No
- Is expansion of the district needed? ☐Yes ☑No

- Do existing sewer lines serve the project site? ☑ Yes ☐ No
- Will a line extension within an existing district be necessary to serve the project? ☐ Yes ☑ No

If Yes:

- Describe extensions or capacity expansions proposed to serve this project: _____

iv. Will a new wastewater (sewage) treatment district be formed to serve the project site? ☐ Yes ☑ No

If Yes:

- Applicant/sponsor for new district: _____
- Date application submitted or anticipated: _____
- What is the receiving water for the wastewater discharge? _____

v. If public facilities will not be used, describe plans to provide wastewater treatment for the project, including specifying proposed receiving water (name and classification if surface discharge or describe subsurface disposal plans):

N/A

vi. Describe any plans or designs to capture, recycle or reuse liquid waste: _____

None

e. Will the proposed action disturb more than one acre and create stormwater runoff, either from new point sources (i.e. ditches, pipes, swales, curbs, gutters or other concentrated flows of stormwater) or non-point source (i.e. sheet flow) during construction or post construction? ☑ Yes ☐ No

If Yes:

i. How much impervious surface will the project create in relation to total size of project parcel?

_____ Square feet or 1.31 acres (impervious surface)

_____ Square feet or 1.78 acres (parcel size)

ii. Describe types of new point sources. Drainage discharges from stormwater management facilities.

iii. Where will the stormwater runoff be directed (i.e. on-site stormwater management facility/structures, adjacent properties, groundwater, on-site surface water or off-site surface waters)?

Stormwater runoff will be direct overland to on-site collection structures (drain inlets or catch basins) and conveyed via piping to on-site management facilities.

- If to surface waters, identify receiving water bodies or wetlands: N/A
- Will stormwater runoff flow to adjacent properties? ☑ Yes ☐ No

iv. Does the proposed plan minimize impervious surfaces, use pervious materials or collect and re-use stormwater? ☑ Yes ☐ No

f. Does the proposed action include, or will it use on-site, one or more sources of air emissions, including fuel combustion, waste incineration, or other processes or operations? ☑ Yes ☐ No

If Yes, identify:

i. Mobile sources during project operations (e.g., heavy equipment, fleet or delivery vehicles)

Delivery vehicles

ii. Stationary sources during construction (e.g., power generation, structural heating, batch plant, crushers)

Power generator

iii. Stationary sources during operations (e.g., process emissions, large boilers, electric generation)

N/A

g. Will any air emission sources named in D.2.f (above), require a NY State Air Registration, Air Facility Permit, or Federal Clean Air Act Title IV or Title V Permit? ☐ Yes ☑ No

If Yes:

i. Is the project site located in an Air quality non-attainment area? (Area routinely or periodically fails to meet ambient air quality standards for all or some parts of the year) ☐ Yes ☐ No

ii. In addition to emissions as calculated in the application, the project will generate:

- _____ Tons/year (short tons) of Carbon Dioxide (CO_2)
- _____ Tons/year (short tons) of Nitrous Oxide (N_2O)
- _____ Tons/year (short tons) of Perfluorocarbons (PFCs)
- _____ Tons/year (short tons) of Sulfur Hexafluoride (SF_6)
- _____ Tons/year (short tons) of Carbon Dioxide equivalent of Hydroflourocarbons (HFCs)
- _____ Tons/year (short tons) of Hazardous Air Pollutants (HAPs)

h. Will the proposed action generate or emit methane (including, but not limited to, sewage treatment plants, landfills, composting facilities)? ☐Yes ☑No

If Yes:

i. Estimate methane generation in tons/year (metric): _____

ii. Describe any methane capture, control or elimination measures included in project design (e.g., combustion to generate heat or electricity, flaring): _____

i. Will the proposed action result in the release of air pollutants from open-air operations or processes, such as quarry or landfill operations? ☐Yes ☑No

If Yes: Describe operations and nature of emissions (e.g., diesel exhaust, rock particulates/dust):

j. Will the proposed action result in a substantial increase in traffic above present levels or generate substantial new demand for transportation facilities or services? ☑Yes ☐No

The enclosed Traffic Study prepared the Applicant's traffic consultant demonstrates that the Project includes proposed mitigation measures that will prevent any adverse impacts.

If Yes:

i. When is the peak traffic expected (Check all that apply): ☐ Morning ☑ Evening ☑Weekend

☐ Randomly between hours of _____ to _____.

ii. For commercial activities only, projected number of truck trips/day and type (e.g., semi trailers and dump trucks): Estimate 1-2 Delivery Trucks/Day & 1 Garbage Truck/week

iii. Parking spaces: Existing 40 Proposed 83 Net increase/decrease +43

iv. Does the proposed action include any shared use parking? ☑Yes ☐No

v. If the proposed action includes any modification of existing roads, creation of new roads or change in existing access, describe: N/A

vi. Are public/private transportation service(s) or facilities available within ½ mile of the proposed site? ☑Yes ☐No

vii Will the proposed action include access to public transportation or accommodations for use of hybrid, electric or other alternative fueled vehicles? ☑Yes ☐No

viii. Will the proposed action include plans for pedestrian or bicycle accommodations for connections to existing pedestrian or bicycle routes? ☑Yes ☐No

k. Will the proposed action (for commercial or industrial projects only) generate new or additional demand for energy? ☑Yes ☐No

If Yes:

i. Estimate annual electricity demand during operation of the proposed action: TBD

ii. Anticipated sources/suppliers of electricity for the project (e.g., on-site combustion, on-site renewable, via grid/local utility, or other): Local Utility Provider

iii. Will the proposed action require a new, or an upgrade, to an existing substation? ☐Yes ☑No

l. Hours of operation. Answer all items which apply.

i. During Construction:

- Monday - Friday: 7AM-9PM
- Saturday: 7AM-9PM
- Sunday: 7AM-9PM
- Holidays: Varies

ii. During Operations:

- Monday - Friday: 9AM-6PM
- Saturday: 9AM-6PM
- Sunday: Varies
- Holidays: Varies

In accordance with City of Beacon Noise Ordinance (CH.149)

Will vary based on commercial tenants

m. Will the proposed action produce noise that will exceed existing ambient noise levels during construction, operation, or both? ☑ Yes ☐ No

If yes:

i. Provide details including sources, time of day and duration:

During construction: On-site generators & construction equipment during the times & duration to comply with City Noise Ordinance

ii. Will the proposed action remove existing natural barriers that could act as a noise barrier or screen? ☑ Yes ☐ No

Describe: The development proposes to remove some existing trees along Beekman Street for streetscape improvements & sidewalk connections to the project site.

n. Will the proposed action have outdoor lighting? ☑ Yes ☐ No

If yes:

i. Describe source(s), location(s), height of fixture(s), direction/aim, and proximity to nearest occupied structures:

Pole mounted & building mounted fixtures for illumination of the parking & drive aisles (20 foot max. ht.) and some bollard lighting (4 foot ht.) for some of the proposed walkways. These are all LED light sources and full cut-off style housings.

ii. Will proposed action remove existing natural barriers that could act as a light barrier or screen? ☑ Yes ☐ No

Describe: The development proposes to remove some existing trees along Beekman Street for streetscape improvements & sidewalk connections to the project site.

o. Does the proposed action have the potential to produce odors for more than one hour per day? ☐ Yes ☑ No

If Yes, describe possible sources, potential frequency and duration of odor emissions, and proximity to nearest occupied structures:

p. Will the proposed action include any bulk storage of petroleum (combined capacity of over 1,100 gallons) or chemical products 185 gallons in above ground storage or any amount in underground storage? ☐ Yes ☑ No

If Yes:

i. Product(s) to be stored

ii. Volume(s) _____ per unit time _____ (e.g., month, year)

iii. Generally, describe the proposed storage facilities:

q. Will the proposed action (commercial, industrial and recreational projects only) use pesticides (i.e., herbicides, insecticides) during construction or operation? ☐ Yes ☑ No

If Yes:

i. Describe proposed treatment(s):

ii. Will the proposed action use Integrated Pest Management Practices? ☐ Yes ☐ No

r. Will the proposed action (commercial or industrial projects only) involve or require the management or disposal of solid waste (excluding hazardous materials)? ☑ Yes ☐ No

If Yes:

i. Describe any solid waste(s) to be generated during construction or operation of the facility:

- Construction: ±2 tons per Month (unit of time)
- Operation : ±5.8 tons per Month (unit of time)

ii. Describe any proposals for on-site minimization, recycling or reuse of materials to avoid disposal as solid waste:

- Construction: Recycle excess or scrap construction materials.
- Operation: Recycle glass, plastics and cardboard.

iii. Proposed disposal methods/facilities for solid waste generated on-site:

- Construction: Local hauling company & solid waste landfill.
- Operation: Local hauling company & solid waste landfill.

s. Does the proposed action include construction or modification of a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Type of management or handling of waste proposed for the site (e.g., recycling or transfer station, composting, landfill, or other disposal activities): _____

ii. Anticipated rate of disposal/processing:

- _____ Tons/month, if transfer or other non-combustion/thermal treatment, or
- _____ Tons/hour, if combustion or thermal treatment

iii. If landfill, anticipated site life: _____ years

t. Will the proposed action at the site involve the commercial generation, treatment, storage, or disposal of hazardous waste? ☐ Yes ☑ No

If Yes:

i. Name(s) of all hazardous wastes or constituents to be generated, handled or managed at facility: _____

ii. Generally describe processes or activities involving hazardous wastes or constituents: _____

iii. Specify amount to be handled or generated _____ tons/month

iv. Describe any proposals for on-site minimization, recycling or reuse of hazardous constituents: _____

v. Will any hazardous wastes be disposed at an existing offsite hazardous waste facility? ☐ Yes ☐ No

If Yes: provide name and location of facility: _____

If No: describe proposed management of any hazardous wastes which will not be sent to a hazardous waste facility:

E. Site and Setting of Proposed Action

E.1. Land uses on and surrounding the project site

a. Existing land uses.

i. Check all uses that occur on, adjoining and near the project site.

☑ Urban ☐ Industrial ☑ Commercial ☑ Residential (suburban) ☐ Rural (non-farm)
☐ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____

ii. If mix of uses, generally describe:

Single and Multi-family Residential to the North & West, Commercial to the East and City of Beacon Hall & Police Department to the South.

b. Land uses and covertypes on the project site.

Land use or Covertype	Current Acreage	Acreage After Project Completion	Change (Acres +/-)
• Roads, buildings, and other paved or impervious surfaces	0.81	1.31	+0.5
• Forested	0	0	0
• Meadows, grasslands or brushlands (non-agricultural, including abandoned agricultural)	0	0	0
• Agricultural (includes active orchards, field, greenhouse etc.)	0	0	0
• Surface water features (lakes, ponds, streams, rivers, etc.)	0	0	0
• Wetlands (freshwater or tidal)	0	0	0
• Non-vegetated (bare rock, earth or fill)	0	0	0
• Other Describe: landscaped area	0.97	0.47	-0.5

c. Is the project site presently used by members of the community for public recreation? ☐ Yes ☑ No

i. If Yes: explain: _____

d. Are there any facilities serving children, the elderly, people with disabilities (e.g., schools, hospitals, licensed day care centers, or group homes) within 1500 feet of the project site? ☑ Yes ☐ No

If Yes,

i. Identify Facilities:

Jenny's Group Family Daycare, Astor Head Start Center

e. Does the project site contain an existing dam? ☐ Yes ☑ No

If Yes:

i. Dimensions of the dam and impoundment:

- Dam height: _____ feet
- Dam length: _____ feet
- Surface area: _____ acres
- Volume impounded: _____ gallons OR acre-feet

ii. Dam's existing hazard classification: _____

iii. Provide date and summarize results of last inspection:

f. Has the project site ever been used as a municipal, commercial or industrial solid waste management facility, or does the project site adjoin property which is now, or was at one time, used as a solid waste management facility? ☐ Yes ☑ No

If Yes:

i. Has the facility been formally closed? ☐ Yes ☐ No

- If yes, cite sources/documentation: _____

ii. Describe the location of the project site relative to the boundaries of the solid waste management facility:

iii. Describe any development constraints due to the prior solid waste activities: _____

g. Have hazardous wastes been generated, treated and/or disposed of at the site, or does the project site adjoin property which is now or was at one time used to commercially treat, store and/or dispose of hazardous waste? ☐ Yes ☑ No

Not to owner's knowledge

If Yes:

i. Describe waste(s) handled and waste management activities, including approximate time when activities occurred:

h. Potential contamination history. Has there been a reported spill at the proposed project site, or have any remedial actions been conducted at or adjacent to the proposed site? ☐ Yes ☑ No

If Yes:

i. Is any portion of the site listed on the NYSDEC Spills Incidents database or Environmental Site Remediation database? Check all that apply: ☐ Yes ☐ No

☐ Yes – Spills Incidents database — Provide DEC ID number(s): _____

☐ Yes – Environmental Site Remediation database — Provide DEC ID number(s): _____

☐ Neither database

ii. If site has been subject of RCRA corrective activities, describe control measures: _____

iii. Is the project within 2000 feet of any site in the NYSDEC Environmental Site Remediation database? ☑ Yes ☐ No

If yes, provide DEC ID number(s): V00293, 314069, 546031

iv. If yes to (i), (ii) or (iii) above, describe current status of site(s):

All locations off-site: V00293: Doral Hat Property, 1 West Main St.; 314069: CH-MGP, River Street; Hudson River PCB Sediments, Hudson River

v. Is the project site subject to an institutional control limiting property uses? ☐ Yes ☑ No

- If yes, DEC site ID number: _____
- Describe the type of institutional control (e.g., deed restriction or easement): _____
- Describe any use limitations: _____
- Describe any engineering controls: _____
- Will the project affect the institutional or engineering controls in place? ☐ Yes ☐ No
- Explain: _____

E.2. Natural Resources On or Near Project Site

a. What is the average depth to bedrock on the project site? >6.5 feet

b. Are there bedrock outcroppings on the project site? ☐ Yes ☑ No
If Yes, what proportion of the site is comprised of bedrock outcroppings? _____ %

c. Predominant soil type(s) present on project site:

DwB - Dutchess-Cardigan complex	100 %
	%
	%

d. What is the average depth to the water table on the project site? Average: >6.5 feet

e. Drainage status of project site soils:

☑	Well Drained:	100 % of site
☐	Moderately Well Drained:	% of site
☐	Poorly Drained	% of site

f. Approximate proportion of proposed action site with slopes:

☑	0-10%:	77.5 % of site
☑	10-15%:	6.5 % of site
☑	15% or greater:	16 % of site

g. Are there any unique geologic features on the project site? ☐ Yes ☑ No
If Yes, describe: _____

h. Surface water features.

i. Does any portion of the project site contain wetlands or other waterbodies (including streams, rivers, ponds or lakes)? ☐ Yes ☑ No

ii. Do any wetlands or other waterbodies adjoin the project site? ☐ Yes ☑ No

If Yes to either *i* or *ii*, continue. If No, skip to E.2.i.

iii. Are any of the wetlands or waterbodies within or adjoining the project site regulated by any federal, state or local agency? ☐ Yes ☑ No

iv. For each identified regulated wetland and waterbody on the project site, provide the following information:

- Streams: Name _____ Classification _____
- Lakes or Ponds: Name _____ Classification _____
- Wetlands: Name _____ Approximate Size _____
- Wetland No. (if regulated by DEC) _____

v. Are any of the above water bodies listed in the most recent compilation of NYS water quality-impaired waterbodies? ☐ Yes ☑ No

If yes, name of impaired water body/bodies and basis for listing as impaired: _____

i. Is the project site in a designated Floodway? ☐ Yes ☑ No

j. Is the project site in the 100-year Floodplain? ☐ Yes ☑ No

k. Is the project site in the 500-year Floodplain? ☐ Yes ☑ No

l. Is the project site located over, or immediately adjoining, a primary, principal or sole source aquifer? ☐ Yes ☑ No
If Yes:

i. Name of aquifer: _____

m. Identify the predominant wildlife species that occupy or use the project site:
Typical Urban Wildlife

n. Does the project site contain a designated significant natural community? ☐Yes ☑No
If Yes:
i. Describe the habitat/community (composition, function, and basis for designation):
ii. Source(s) of description or evaluation:
iii. Extent of community/habitat:
- Currently: acres
- Following completion of project as proposed: acres
- Gain or loss (indicate + or -): acres

o. Does project site contain any species of plant or animal that is listed by the federal government or NYS as endangered or threatened, or does it contain any areas identified as habitat for an endangered or threatened species? ☑ Yes ☐No

If Yes:
i. Species and listing (endangered or threatened):
Atlantic Sturgeon, Shortnose Sturgeon, Indiana Bat (Auto-generated by NYSDEC EAF Mapper)

p. Does the project site contain any species of plant or animal that is listed by NYS as rare, or as a species of special concern? ☐Yes ☑No

If Yes:
i. Species and listing:

q. Is the project site or adjoining area currently used for hunting, trapping, fishing or shell fishing? ☐Yes ☑No
If yes, give a brief description of how the proposed action may affect that use:

E.3. Designated Public Resources On or Near Project Site

a. Is the project site, or any portion of it, located in a designated agricultural district certified pursuant to Agriculture and Markets Law, Article 25-AA, Section 303 and 304? ☐Yes ☑No
If Yes, provide county plus district name/number:

b. Are agricultural lands consisting of highly productive soils present? ☐Yes ☑No
i. If Yes: acreage(s) on project site?
ii. Source(s) of soil rating(s):

c. Does the project site contain all or part of, or is it substantially contiguous to, a registered National Natural Landmark? ☐Yes ☑No
If Yes:
i. Nature of the natural landmark: ☐ Biological Community ☐ Geological Feature
ii. Provide brief description of landmark, including values behind designation and approximate size/extent:

d. Is the project site located in or does it adjoin a state listed Critical Environmental Area? ☐Yes ☑No
If Yes:
i. CEA name:
ii. Basis for designation:
iii. Designating agency and date:

e. Does the project site contain, or is it substantially contiguous to, a building, archaeological site, or district which is listed on the National or State Register of Historic Places, or that has been determined by the Commissioner of the NYS Office of Parks, Recreation and Historic Preservation to be eligible for listing on the State Register of Historic Places? ☑ Yes ☐ No

If Yes:

i. Nature of historic/archaeological resource: ☐ Archaeological Site ☑ Historic Building or District

ii. Name: Bogardus--DeWindt House, Lower Main Street Historic District

iii. Brief description of attributes on which listing is based:

The site is located 0.05 miles from the Bogardus DeWindt House, and 0.10 miles from the Lower Main Street Historic District.

f. Is the project site, or any portion of it, located in or adjacent to an area designated as sensitive for archaeological sites on the NY State Historic Preservation Office (SHPO) archaeological site inventory? ☑ Yes ☐ No

g. Have additional archaeological or historic site(s) or resources been identified on the project site? ☐ Yes ☑ No

If Yes:

i. Describe possible resource(s): _____

ii. Basis for identification: _____

h. Is the project site within fives miles of any officially designated and publicly accessible federal, state, or local scenic or aesthetic resource? ☑ Yes ☐ No

If Yes:

i. Identify resource: Dennings Point (State Park), Hudson Highlands (SASS)

ii. Nature of, or basis for, designation (e.g., established highway overlook, state or local park, state historic trail or scenic byway, etc.): Dennings Point (State Park), Hudson Highlands (SASS)

iii. Distance between project and resource: 1 & 1.6 miles.

i. Is the project site located within a designated river corridor under the Wild, Scenic and Recreational Rivers Program 6 NYCRR 666? ☐ Yes ☑ No

If Yes:

i. Identify the name of the river and its designation: _____

ii. Is the activity consistent with development restrictions contained in 6NYCRR Part 666? ☐ Yes ☐ No

F. Additional Information

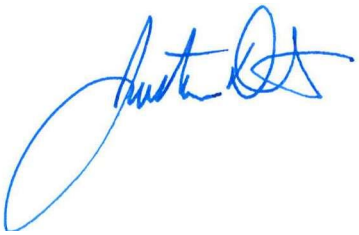
Attach any additional information which may be needed to clarify your project.

If you have identified any adverse impacts which could be associated with your proposal, please describe those impacts plus any measures which you propose to avoid or minimize them.

G. Verification

I certify that the information provided is true to the best of my knowledge.

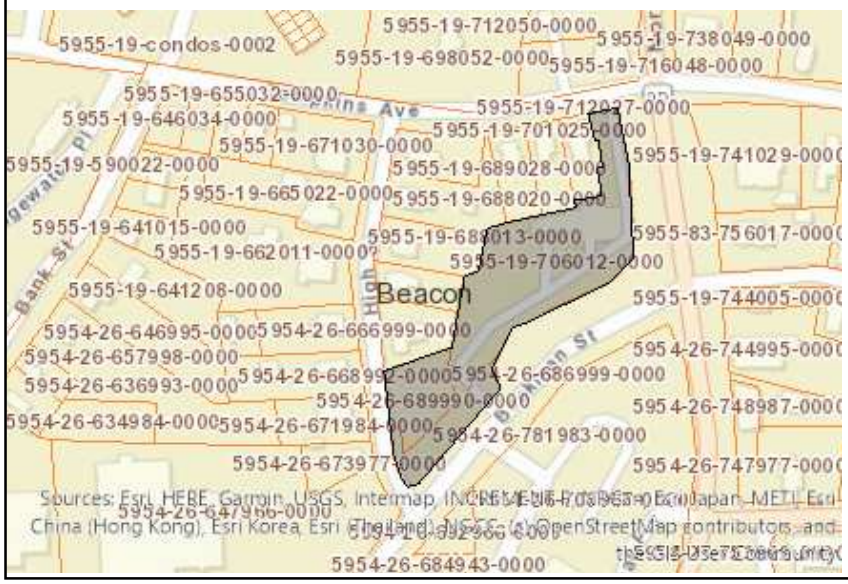
~~Applicant/Sponsor~~ Name Justin Dates, RLA,Colliers Engineering&Design Date January 30, 2024

Signature  Title Department Manager

PRINT FORM

EAF Mapper Summary Report

Wednesday, October 11, 2023 11:33 AM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.



B.i.i [Coastal or Waterfront Area]	Yes
B.i.ii [Local Waterfront Revitalization Area]	Yes
C.2.b. [Special Planning District]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h [DEC Spills or Remediation Site - Potential Contamination History]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Listed]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.i [DEC Spills or Remediation Site - Environmental Site Remediation Database]	Digital mapping data are not available or are incomplete. Refer to EAF Workbook.
E.1.h.iii [Within 2,000' of DEC Remediation Site]	Yes
E.1.h.iii [Within 2,000' of DEC Remediation Site - DEC ID]	V00293, 314069, 546031
E.2.g [Unique Geologic Features]	No
E.2.h.i [Surface Water Features]	No
E.2.h.ii [Surface Water Features]	No
E.2.h.iii [Surface Water Features]	No
E.2.h.v [Impaired Water Bodies]	No
E.2.i. [Floodway]	No
E.2.j. [100 Year Floodplain]	No
E.2.k. [500 Year Floodplain]	No
E.2.l. [Aquifers]	No
E.2.n. [Natural Communities]	No
E.2.o. [Endangered or Threatened Species]	Yes

E.2.o. [Endangered or Threatened Species - Name]	Atlantic Sturgeon, Shortnose Sturgeon, Indiana Bat
E.2.p. [Rare Plants or Animals]	No
E.3.a. [Agricultural District]	No
E.3.c. [National Natural Landmark]	No
E.3.d [Critical Environmental Area]	No
E.3.e. [National or State Register of Historic Places or State Eligible Sites]	Yes - Digital mapping data for archaeological site boundaries are not available. Refer to EAF Workbook.
E.3.e.ii [National or State Register of Historic Places or State Eligible Sites - Name]	Bogardus--DeWindt House, Lower Main Street Historic District
E.3.f. [Archeological Sites]	Yes
E.3.i. [Designated River Corridor]	No

ARYEH SIEGEL
ARCHITECT

John Gunn - Planning Board Chairman
City of Beacon
One Municipal Plaza
Beacon, NY 12508

Re: 45 Beekman Street & High Street, Beacon, New York
Site Plan Application – Responses to Comments

January 26, 2024

Dear Chairman Gunn and Members of the Planning Board,

Below please find our responses to the comments included in John Clarke Planning and Design's Memorandum, dated December 8, 2023, and Lanc & Tully's letter dated December 8, 2023.

John Clarke Planning and Design Comment Responses:

1. To assist the Board is assessing any potential impacts on adjacent properties, the first sheet should include an aerial that shows the location of buildings on the surrounding parcels.

   Response: An aerial view is included on the Site Plan sheet.

2. The Sheet 1 Parking Requirements should be consistent with the assumptions and total parking required in the Traffic & Parking Study.

   Response: The parking requirements have been coordinated with the assumptions and total parking shown in the Traffic & Parking Study.

3. Sheet 2 should include the location, size, and species of all trees on the site over 6 inches in diameter and identify any trees that are to be removed.

   Response: Sheet 2 will include the locations of trees over 6" diameter, and identify trees to be removed.

4. The applicant is proposing 89 off-street parking spaces, while 109 spaces are required under the zoning evaluation in the Traffic & Parking Study. The Study also makes the case for a 20-space

84 Mason Circle | ajs@ajsarch.com | *Tel* 845 838 2490
Beacon, New York 12508 | www.ajsarch.com | *Fax* 845 838 2657

reduction under the provisions in Section 223-41.21F(3), including proximity to the Train Station and a shared parking analysis for the mixed-use proposal. The Planning Board's transportation consultant should review the Study and provide comments and recommendations.

Response: Comment acknowledged. As is further detailed within the revised Traffic & Parking Study enclosed in this supplemental submission, the applicant is now proposing a total of 83 off-street parking. This revised amount results from the applicant's proposed reduction in total dwelling units in addition to the implementation of updated Institute of Transportation Engineers parking data and a shared parking analysis accounting for the project site's proximity to the train station.

5. The Board should discuss if portions of the parking lots comply with the setbacks and screening provisions in Section 223-41.21F(1).

   Response: Comment acknowledged.

6. The cover sheet is labeled as a Sketch Site Plan and the set is incomplete. Future submittals will need a Landscaping Plan with a detailed plant schedule, a Lighting Plan with fixture specifications that demonstrate compliance with Section 223-14B, engineering sheets, construction details, and building elevations with major dimensions, materials, and colors noted.

   Response: Comment acknowledged. The enclosed full Site Plan set includes a landscaping plan with detailed plant schedule, zoning compliant lighting plan, grading, utility, erosion & sediment control plans, and construction details. Progress plans and views of the building designs has been provided. Detailed building elevations with major dimensions, materials, and colors will be provided in future submissions as the design is reviewed by the Architectural Review Board.

7. The Sheet 3 Garage Plan shows one ADA space, while the Sheet 1 note implies that 4 ADA spaces are in the garage. Also, a few of the garage spaces are too narrow and cars in the two spaces at the far end of the garage seem to have no way of easily backing out of the spaces.

   Response: A second ADA parking space has been added inside the garage. The garage layout has been revised to provide full-width parking spaces throughout. The two spaces at the far end of the garage have been revised for easier access and maneuverability.

8. The LWRP consistency justification is acceptable and the proposal appears to present no conflicts the City's waterfront area policies.

   Response: Comment acknowledged.

9. Once the plans are developed further, the building design should be referred to the Architectural Review Subcommittee. Future graphics should show rooftop projections.

   Response: Comment acknowledged.

Please refer to Collier's letter for responses to Lanc & Tully comments. Thank you. Please let me know if you have any questions.

Sincerely,



Aryeh Siegel
Aryeh Siegel, Architect

555 Hudson Valley Avenue Suite 101 New Windsor New York 12553
Main: 877 627 3772

Colliers Engineering & Design

January 30, 2024

John Gunn, Chairman
City of Beacon Planning Board
1 Municipal Plaza
Beacon, NY 12508

45 Beekman Street & High Street – Mixed-Use Project
Parcels: 5954-26-689990 & 781983 and 5955-19-706012
City of Beacon, Dutchess County, NY
Colliers Engineering & Design Project No. 23010468A

Dear Chairman Gunn and the Members of the Planning Board,

Below please find our responses to a comment letter received from Lanc & Tully dated December 8, 2023. The comments have been repeated here for clarity:

SEQRA Comments:

Comment 1. The calculations for the proposed water and sewer usage shall be provided.

Response 1: ***The estimated water & sewer flows in the EAF were calculated using the 2014 NYSDEC Design Standards for Intermediate Sized Wastewater Treatment Systems, the proposed project has an estimated average daily flow of 11,810 GPD. This was calculated as follows:***

- ***33, 1-bedroom Units (33 units * 1-Bedroom per unit * 110 GPD per bedroom) = 3,630 GPD***
- ***32, 2-bedroom Units (32 units * 2-Bedrooms per unit * 110 GPD per bedroom) = 7,040 GPD***
- ***7,044 SF of Retail Space (7,044 SF * 0.1 GPD per SF) = 705 GPD***
- ***7,044 SF of Office Space (Estimated 29 Employees * 15 GPD per Employee) = 435 GPD***
- ***Total estimated project flows = 11,810 GPD***

The flow generated for the office & retail space was not adjusted for the allowable 20% reduction for water saving plumbing fixtures.

Please also note that the scope of the project was reduced by (1) one residential unit to 64 total units but an increase in total bedrooms to 99 (97 previously) and the commercial space in Building #2 (adjacent to High Street) was reduced to a total of 3,930 S.F. (5,418 S.F. previously). These project modifications added 100 GPD for an updated total of 11,910 GPD for the project.

Comment 2. The applicant shall seek a letter from the Beacon Water & Sewer Superintendent to verify that there is sufficient water and sewer to service the project.

Colliers Engineering & Design

Response 2: ***A copy of the will serve letter dated 1/25/2024 from Superintendent Balicki has been included in this supplemental submission. This confirms water and sewer service for the previously estimated demand of 11,810 GPD. As noted above, the project's estimated demand increased slightly to 11,910 GPD however, this total does not account for the allowable 20% reduction for water saving fixtures for the commercial uses.***

General Comments:

Comment 1. A lot-line merger plan shall be prepared for the project.

Response 1: ***A lot-line merger plan is being prepared by the Project Surveyor and will be provided to the Board in a future submission.***

Comment 2. Based upon the submitted EAF, the applicant has noted that they will require approvals from the NYSDOT and Dutchess County Department of Health.

Response 2: ***Correct. The approvals noted are still anticipated for the project. An updated EAF indicating certain project updates has been enclosed with this supplemental submission.***

Comment 3. The applicant's consultant shall conduct an Inflow & Infiltration (I&I) Study of the existing site and building, and provide a certified written report to the City of Beacon of the findings. Possible cross-connections to the City's sanitary sewer collection system include roof-leaders, sump pumps, existing site drains, etc. shall be identified. If any cross-connections are found, the report shall include these findings along with the volume of I&I being introduced into the sanitary sewer collection system, and the proposed remediation for the cross-connection(s) found.

Response 3: ***An Inflow & Infiltration Study will be provided for the project within a future submission. Further investigation into the existing utility routings is being conducted by the Project Surveyor.***

Comment 4. A stormwater pollution prevention plan (SWPPP) shall be prepared for the project.

Response 4: ***Colliers Engineering & Design (CED) has prepared a Preliminary SWPPP for the project and it has been included in this supplemental submission for review.***

Comment 5. As the project progresses, the plan set shall be updated to include utility plans, landscaping plans, lighting plans, grading plans, signage & striping plans, erosion & sediment control plans, and construction details pertinent to the construction of the project.

Response 5: ***CED has prepared a Preliminary Site Plan set which includes the above referenced plans for the project and it has been included in this supplemental submission.***

Colliers Engineering & Design

Comment 6. The current plans shall be updated to reflect the water, sewer, storm drainage and other utility pipe runs that are currently crossing and/or servicing the site, as well as those utility pipe runs located along and in the adjoining roads to the site. This information should include the size of the pipes, pipe material, pipe inverts in structures, etc.

Response 6: ***Current information from the project survey maps have been utilized and referenced for the existing conditions in developing the Preliminary Site Plans provided with this supplemental submission. As mentioned above, further investigation into the existing utility routings is being conducted by the Project Surveyor.***

Comment 7. A copy of the survey prepared for the parcels that make up the project site shall be submitted. The survey shall be signed and sealed.

Response 7: ***Signed & sealed copies of the latest survey maps for the project site will be provided to the Board in a future submission.***

Comment 8. Sheet 2 of 5 includes a note in several locations stating "All property lines have been adjusted to be a minimum of 25' from the center line of the road". The plan should show the property lines as to where they currently exist without adjustment, and an offer of dedication to the City of Beacon be prepared for those areas as to where the property line is to be adjusted so that it is 25-feet from the centerline of the road.

Response 8: ***The Project Surveyor will provide clarification to the Board in a future submission.***

Comment 9. Sheet 2 of 5 has Route 9D labeled as Tompkins Avenue. This should be revised to North Avenue.

Response 9: ***Road Names have been updated on the project plans as needed.***

Comment 10. Sheet 2 of 5 should be updated to reflect all utilities located within the neighboring roads, as well as running through the site, as per Comment No. 6 above.

Response 10: ***See response #6 above.***

Comment 11. The "Existing Conditions" plan shall be updated to include a note as to where the boundary survey information and topography were obtained.

Response 11: ***The Cover Sheet of the Preliminary Site Plan set references the mapping for the project site boundary and topographic information.***

Comment 12. As the retaining walls exceed 4-feet in height, the retaining walls shall be designed by a licensed engineer in the State of New York. Design drawings of the wall(s), along with the calculations for the wall design, shall be submitted for review. The applicant should also provide details of the wall on the plans for review by the Planning Board.

Colliers Engineering & Design

Response 12: ***Refer to Sheet #17 of the Preliminary Site Plans for a construction detail of the proposed retaining walls. The detail notes the need for signed & sealed wall design plans and calculations. These will be provided for review under future submission.***

Comment 13. The plans shall take into account snow storage areas for the proposed project.

Response 13: ***Refer to Sheet #3 of the Preliminary Site Plan set for proposed snow storage areas.***

Comment 14. Additional elevation views should be provided with views from Route 9D and Tompkins Avenue. The current elevation views that have been provided should be labeled as to what side of the building is being viewed (north, east, etc.).

Response 14: ***The Project Architect is developing additional elevations plans as requested and will be provided to the Board in a future submission.***

If you have any questions regarding the above responses or updated project documents please feel free to call me at 845.564.4495.

Sincerely,

Colliers Engineering & Design, Architecture, Landscape Architecture, Surveying, CT P.C.

Justin E. Dates, R.L.A.
Department Manager

cc: File

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CITY OF BEACON
New York

WATER DEPARTMENT 845-831-3136

To: Justin Dates, R.L.A.
Colliers Engineering & Design

January 25, 2024

Re: Water and Sewer Will Serve Request
For 45 Beekman & High Street – Mixed-Use Project
Dated January 16, 2024

Justn Dates,

I have reviewed the above referenced letter and calculations for possible water and sanitary sewer demands for the proposed 45 Beekman Street and High Street project. Based on the estimated average daily flow of 11,810 gallons per day of both water and sewer, the City of Beacon can provide water to the project and accept sanitary sewer from the project. Please note that a more detailed sanitary sewer analysis may required by the Dutchess County Department of Health and the City of Beacon Planning Board prior to connecting the sanitary sewer system.

Currently the City of Beacon does not have restrictions on connection points for the water and sanitary sewer. I will recommend that the project seek to make the connections in Beekman Street and not North Ave/Rt D due to disruptions in traffic. I will also recommend that the connection points be finalized as soon as possible, especially if connecting to the utilities in Beekman Street as Beekman Street may be resurfaced this year.

Respectfully,

Edward Balicki
City of Beacon
Superintendent of Water and Sewer
845-831-3136
ebalicki@beaconny.gov

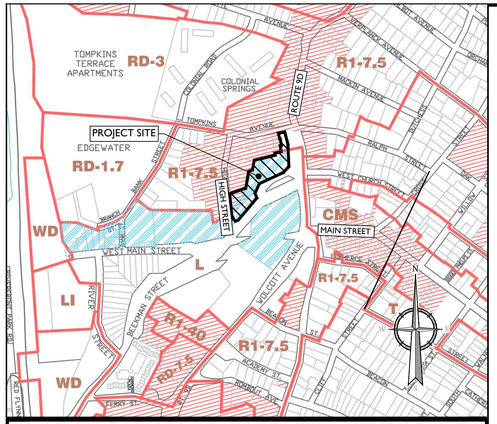
PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS: 5955-19-706012, 5954-26-689990, 5954-26-781983

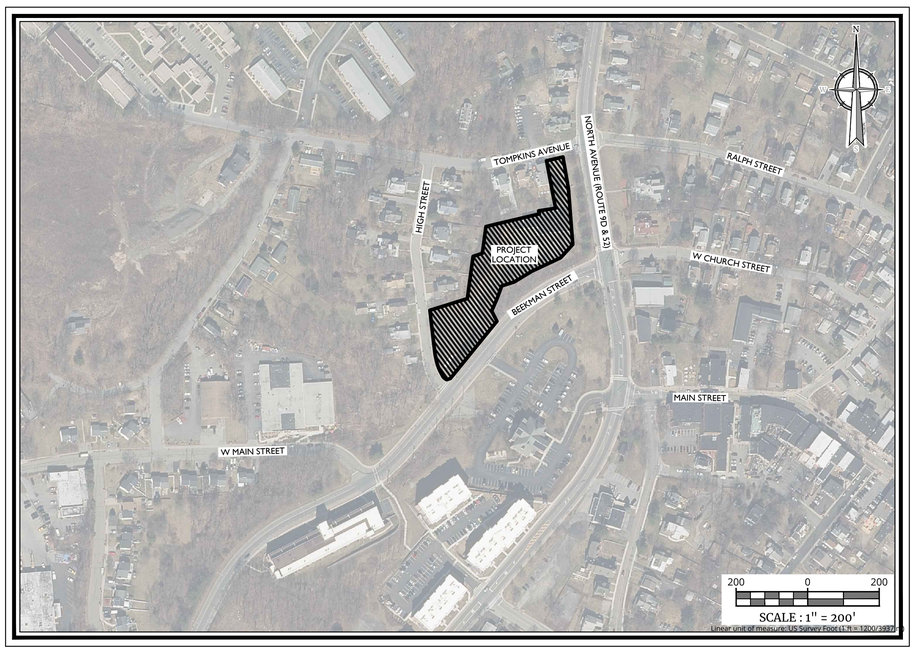
CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE



ZONING MAP

SCALE: 1" =500'

SOURCE: CITY OF BEACON ZONING MAP



LOCATION MAP

SOURCE: NEW YORK STATE G.I.S. CLEARINGHOUSE

INDEX OF SHEETS

SHT. No.	DESCRIPTION	LATEST REVISION
1	COVER SHEET	
2	EXISTING CONDITIONS & SITE DEMOLITION PLAN	
3	DIMENSION PLAN	
4-6	GRADING PLANS	
7-8	UTILITY PLANS	
9	SOIL EROSION & SEDIMENT CONTROL PLAN	
10	SOIL EROSION & SEDIMENT CONTROL DETAILS	
11	LANDSCAPE PLAN	
12	LIGHTING PLAN	
13-18	CONSTRUCTION DETAILS	

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY MAPS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

GENERAL INFORMATION

1. THE SUBJECT PROPERTIES ARE KNOWN BY THE FOLLOWING TAX IDS: 5955-19-706012, 5954-26-689990, 5954-26-781983 AS SHOWN ON THE DUTCHESS COUNTY TAX MAP OF THE CITY OF BEACON, DUTCHESS COUNTY, NEW YORK, TAX YEAR 2023.
2. THE PROPERTY IS LOCATED IN THE L (LINKAGE) ZONING DISTRICT AND IN THE R1-7.5 (RESIDENTIAL) CONTAINS A TOTAL TRACT AREA OF 1.79 ACRES.

OWNER/APPLICANT: BEEKMAN ARTS CENTER LLC (TAX ID: 5955-19-706012)
268 MAIN STREET
BEACON, NY 12508

BAY RIDGE STUDIOS LLC (TAX ID: 5954-26-781983 & 5954-26-689990)
268 MAIN STREET
BEACON, NY 12508

3. BOUNDARY AND TOPOGRAPHICAL MAPPING IS TAKEN FROM A SURVEY TITLED "BOUNDARY SURVEY OF THE LANDS OF BEEKMAN ARTS CENTER, LLC & BAYRIDGE STUDIOS, LLC" PREPARED BY JONATHAN N. MILLEN NY, P.L.S. (LICENSE NO. 050746) OF AUTOMATED CONSTRUCTION ENHANCED SOLUTIONS, INC., DATED NOVEMBER 03, 2023.
4. THIS SET OF PLANS IS NOT DEPICTING ENVIRONMENTAL CONDITIONS OR A CERTIFICATION/WARRANTY REGARDING THE PRESENCE OR ABSENCE OF ENVIRONMENTALLY IMPACTED SITE CONDITIONS. COLLIERS ENGINEERING & DESIGN HAS PERFORMED NO EXPLORATORY OR TESTING SERVICES, INTERPRETATIONS, CONCLUSIONS OR OTHER SITE ENVIRONMENTAL SERVICES RELATED TO THE DETERMINATION OF THE POTENTIAL FOR CHEMICAL, TOXIC, RADIOACTIVE OR OTHER TYPE OF CONTAMINANTS AFFECTING THE PROPERTY AND THE UNDERSIGNED PROFESSIONAL IS NOT QUALIFIED TO DETERMINE THE EXISTENCE OF SAME. SHOULD ENVIRONMENTAL CONTAMINATION OR WASTE BE DISCOVERED, THE OWNER AND CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL APPLICABLE LAWS AND REGULATIONS.
5. THIS IS A SITE DEVELOPMENT PLAN AND UNLESS SPECIFICALLY NOTED ELSEWHERE HERON, IS NOT A SURVEY.
6. NO 100 YEAR FLOOD PLAINS ARE KNOW TO EXIST ON THE SITE PER THE FLOOD INSURANCE RATE MAP 36027C0463E DATED 05/02/2012, PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
7. DO NOT SCALE DRAWINGS AS THEY PERTAIN TO ADJACENT AND SURROUNDING PHYSICAL CONDITIONS, BUILDINGS, STRUCTURES, ETC. THEY ARE SCHEMATIC ONLY, EXCEPT WHERE DIMENSIONS ARE SHOWN THERETO.
8. THIS SET OF PLANS HAS BEEN PREPARED FOR THE PURPOSES OF MUNICIPAL AND AGENCY REVIEW AND APPROVAL. THIS SET OF PLANS SHALL NOT BE UTILIZED AS CONSTRUCTION DOCUMENTS UNTIL ALL APPROVALS REQUIRED HAVE BEEN OBTAINED, ALL CONDITIONS OF APPROVAL HAVE BEEN SATISFIED AND THE DRAWINGS HAVE BEEN STAMPED "ISSUED FOR CONSTRUCTION". THIS SHALL INCLUDE APPROVAL OF ALL CATALOG CUTS, SHOP DRAWINGS AND/OR DESIGN CALCULATIONS AS REQUIRED BY THE PROJECT OWNER AND/OR MUNICIPAL ENGINEER.
9. THE CONTRACTOR IS RESPONSIBLE FOR PROJECT SAFETY, INCLUDING PROVISION OF ALL APPROPRIATE SAFETY DEVICES AND TRAINING REQUIRED.
10. PRIOR TO ANY EXCAVATION, THE CONTRACTOR SHALL CALL 811 TO REQUEST A UTILITY MARKOUT.
11. INFORMATION HEREON INCORPORATES THE CONTENT IN THE FOLLOWING REPORTS:
    - "PRELIMINARY STORMWATER POLLUTION PREVENTION PLAN (PRELIMINARY SWPPP)" PREPARED FOR BEEKMAN ARTS CENTER LLC & BAYRIDGE STUDIOS LLC PREPARED BY COLLIERS ENGINEERING & DESIGN, DATED JANUARY 30, 2024.

SITE NOTES

1. BUILDING FOOTPRINT DIMENSIONS SHOWN HEREON ARE APPROXIMATE. FINAL BUILDING FOOTPRINT DIMENSIONS FOR EACH BUILDING SHALL BE FURNISHED ON THE INDIVIDUAL ARCHITECTURAL PLANS AT THE TIME OF APPLICATION FOR A BUILDING PERMIT. ALL STRUCTURES SHALL CONFORM TO THE APPROVED BULK ZONING REQUIREMENTS.
2. CURBS SHALL BE DEPRESSED FLUSH WITH PAVEMENT, AND ACCESSIBLE RAMPS INSTALLED WHERE SIDEWALKS AND CROSSWALKS INTERSECT SAME. DETECTABLE WARNINGS SHALL BE INCLUDED ON ACCESSIBLE RAMPS.
3. TRAFFIC SIGNAGE AND STRIPING SHALL CORRESPOND TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
4. REFUSE AND RECYCLABLES SHALL BE STORED WITHIN OUTSIDE SCREENED TRASH ENCLOSURES AS NOTED ON THE PLANS, AND PICKED UP BY PRIVATE WASTE DISPOSAL HAULER.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL WASTE MATERIALS IN ACCORDANCE WITH GOVERNING REGULATIONS AND AGENCIES.
6. THERE SHALL BE NO ON-SITE BURIAL OF CONSTRUCTION MATERIALS, TREE BRANCHES, STUMPS, OR OTHER DELETERIOUS MATERIALS.
7. MATERIALS, WORKMANSHIP, AND CONSTRUCTION FOR THE SITE IMPROVEMENTS SHOWN HEREON SHALL BE IN ACCORDANCE WITH:
   A. NEW YORK STATE DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS", 2018; AS SUPPLEMENTED.
   B. CURRENT PREVAILING MUNICIPAL, COUNTY, AND/OR STATE AGENCY SPECIFICATIONS, STANDARDS, CONDITIONS, AND REQUIREMENTS.
   C. CURRENT PREVAILING UTILITY COMPANY/AUTHORITY SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.
   D. CURRENT MANUFACTURER SPECIFICATIONS, STANDARDS, AND REQUIREMENTS.

UTILITY NOTES

1. EXISTING UTILITY INFORMATION SHOWN HEREON HAS BEEN COLLECTED FROM VARIOUS SOURCES AND IS NOT GUARANTEED AS TO ACCURACY OR COMPLETENESS. THE CONTRACTOR SHALL VERIFY ALL INFORMATION TO HIS SATISFACTION PRIOR TO EXCAVATION. WHERE EXISTING UTILITIES ARE TO BE CROSSED BY PROPOSED CONSTRUCTIONS, TEST PITS SHALL BE DUG BY THE CONTRACTOR PRIOR TO CONSTRUCTION TO ASCERTAIN EXISTING INVERTS, MATERIALS, AND SIZES. TEST PIT INFORMATION SHALL BE GIVEN TO THE ENGINEER PRIOR TO CONSTRUCTION TO PERMIT ADJUSTMENTS AS REQUIRED TO AVOID CONFLICTS. THE CONTRACTOR SHALL NOTIFY THE UNDER SIGNED PROFESSIONAL IMMEDIATELY IF ANY FIELD CONDITIONS ENCOUNTERED DIFFER MATERIALLY FROM THOSE REPRESENTED HEREON. SUCH CONDITIONS COULD RENDER THE DESIGNS HEREON INAPPROPRIATE OR INEFFECTIVE.
2. UTILITY RELOCATIONS SHOWN HEREON, IF ANY, ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT ALL REQUIRED UTILITY RELOCATIONS. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING AND/OR COORDINATING ALL REQUIRED UTILITY RELOCATIONS IN COOPERATION WITH THE RESPECTIVE UTILITY COMPANY/AUTHORITIES.
3. STORM SEWERS SHALL BE CLASS III (OR HIGHER IF NOTED) REINFORCED CONCRETE PIPE (RCP) WITH "O" RING GASKETS OR INTERNALLY PRELUBRICATED GASKET (TYLOX SUPERSEAL OR EQUIVALENT, ADS N-12 HIGH DENSITY POLYETHYLENE PIPE (HDPE), AS NOTED ON THE PLAN, OR APPROVED EQUAL. PROPER PIPE COVERAGE SHALL BE MAINTAINED DURING ALL PHASES OF CONSTRUCTION. PIPE LENGTHS SHOWN HEREON ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
4. WATER SERVICE SHALL BE PROVIDED FROM THE CITY OF BEACON. THE PROJECT SHALL CONNECT TO THE MUNICIPAL SYSTEM VIA THE EXISTING WATER MAINS IN TOMPKINS AVENUE AND HIGH STREET SUBJECT TO THE APPLICABLE REGULATIONS AND THE APPROVAL OF THE MUNICIPALITY & THE DUTCHESS COUNTY DEPARTMENT OF HEALTH.
5. SANITARY SEWER SERVICE SHALL BE PROVIDED BY CONNECTION TO THE EXISTING CITY OF BEACON SANITARY MAIN LOCATED IN HIGH STREET.
6. ALL WATER MAINS SHOULD BE SEPARATED FROM SANITARY SEWER LINES BY A MINIMUM HORIZONTAL DISTANCE OF 10 FEET. IF SUCH HORIZONTAL SEPARATION IS NOT POSSIBLE, THE WATER AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (STEP TRENCHES ARE PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN ENCASED IN CONCRETE OR WITH SUCH SEPARATION EXPRESSLY APPROVED BY THE MUNICIPALITY.
7. AT THE CROSSINGS OF SEWER LINES AND WATER MAINS, THE TOP OF THE SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN (SEWER SERVICE LATERALS ARE NOT SUBJECT TO THIS REQUIREMENT). IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE WATER LINE SHALL BE ENCASED IN CONCRETE.
8. GAS, ELECTRIC, LIGHTING, CABLE TELEVISION, AND ELECTRICAL SERVICE PLANS, IF REQUIRED, SHALL BE PREPARED BY THE RESPECTIVE UTILITY COMPANIES THAT SERVICE THE AREA PRIOR TO SITE CONSTRUCTION AND SHALL BE INSTALLED PER ORDINANCE OR LOCAL UTILITY COMPANIES REQUIREMENTS.
9. ALL UTILITY CONNECTION LOCATIONS MUST BE CONFIRMED WITH THE GOVERNING AUTHORITY & WITH A TEST PIT BY THE CONTRACTOR PRIOR TO INSTALLATION.
10. UTILITY INSTALLATION WITHIN THE NYSDOT RIGHT-OF-WAY TO BE COORDINATED WITH THE APPLICABLE NYSDOT PERMIT PLANS.

THESE GENERAL NOTES SHALL APPLY TO ALL SHEETS IN THIS SET.

Colliers Engineering & Design

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FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION

REGISTERED LANDSCAPE ARCHITECT JUSTIN E. DATES 001964 STATE OF NEW YORK

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER:	DRAWING NAME:
23010468A	C-CVER

SHEET TITLE: COVER SHEET

SHEET NUMBER: 01 of 18

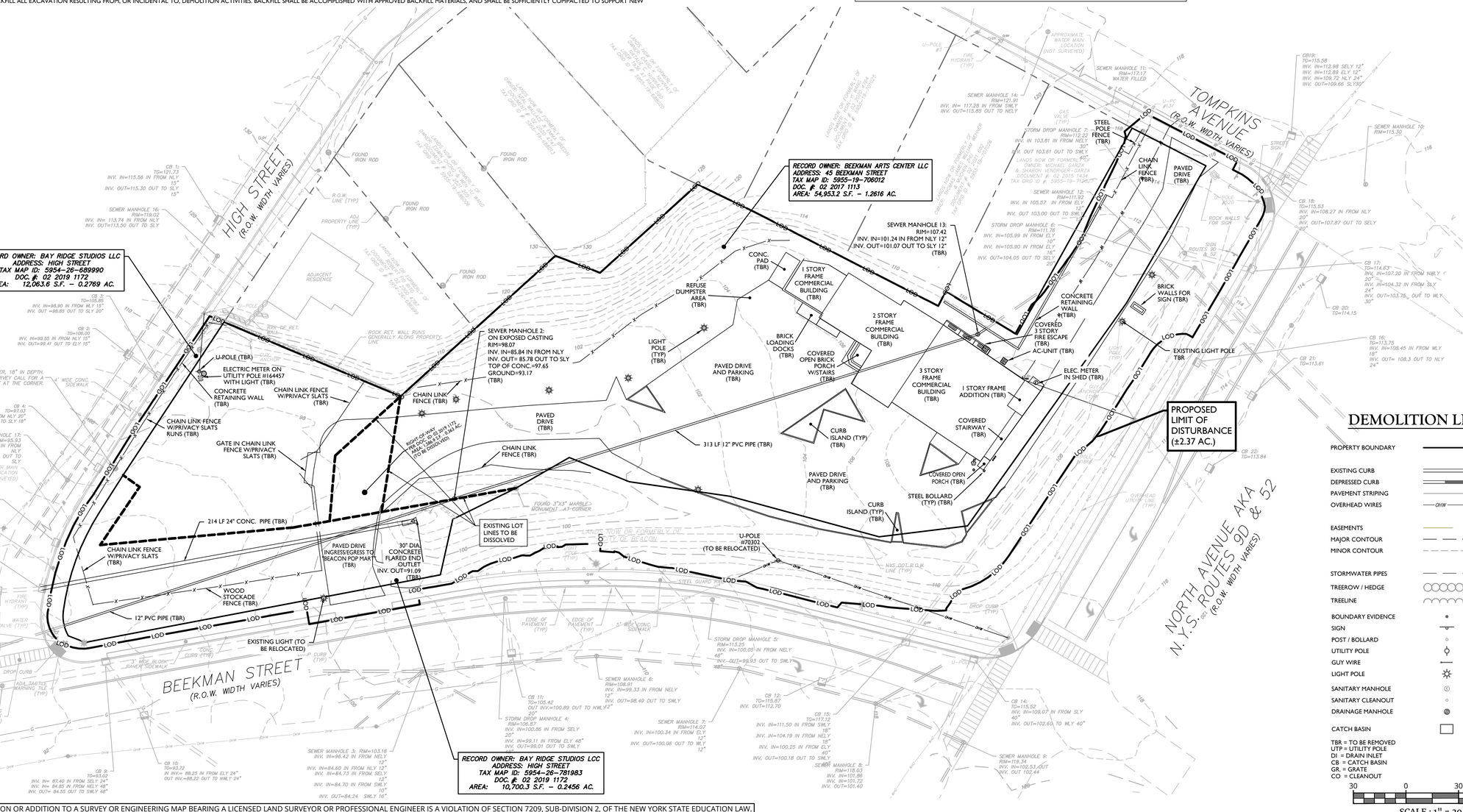
2023\23010468A\Engineering\Site Plans\C-CVER.dwg|C-01 COVER By: KYLE SHALLOW

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

DEMOLITION NOTES:

1. THIS PLAN REFERENCES THE FOLLOWING DOCUMENTS AND INFORMATION:
   A. BOUNDARY AND TOPOGRAPHICAL MAPPING IS TAKEN FROM A SURVEY TITLED "BOUNDARY SURVEY OF THE LANDS OF BEEKMAN ARTS CENTER, LLC & BAYRIDGE STUDIOS, LLC" PREPARED BY JONATHAN N. MILLEN NY, P.L.S. (LICENSE NO. 050746) OF AUTOMATED CONSTRUCTION ENHANCED SOLUTIONS, INC., DATED NOVEMBER 03, 2023.
2. CONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970 (29 U.S.C. 651 ET SEQ.) AND THE NEW YORK PROTECTION OF UNDERGROUND FACILITIES ACT (DIG SAFE LAW, 16 NYCRR PART 753) AS AMENDED.
3. THE DEMOLITION PLAN IS INTENDED TO PROVIDE GENERAL INFORMATION REGARDING ITEMS TO BE DEMOLISHED AND/OR REMOVED. THE CONTRACTOR SHALL ALSO REVIEW THE OTHER SITE PLAN DRAWINGS AND INCLUDE IN DEMOLITION ACTIVITIES ALL INCIDENTAL WORK NECESSARY FOR THE CONSTRUCTION OF THE NEW SITE IMPROVEMENTS.
4. ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THESE PLANS AND SPECIFICATIONS AND ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ANY QUESTIONS CONCERNING THE ACCURACY OR INTENT OF THESE PLANS OR SPECIFICATIONS, CONCERNS REGARDING THE APPLICABLE SAFETY STANDARDS OR THE SAFETY OF THE CONTRACTOR OR THIRD PARTIES IN PERFORMING THE WORK OF THIS PROJECT SHALL BE RAISED WITH ENGINEER, IN WRITING AND RESPONDED TO BY ENGINEER, IN WRITING, PRIOR TO THE INITIATION OF ANY SITE ACTIVITY.
5. PRIOR TO STARTING ANY DEMOLITION, CONTRACTOR IS RESPONSIBLE FOR/TO:
   A. OBTAINING ALL REQUIRED PERMITS AND MAINTAINING THE SAME ON SITE FOR REVIEW BY THE ENGINEER AND OTHER PUBLIC AGENCIES HAVING JURISDICTION.
   B. NOTIFYING, AT A MINIMUM, THE MUNICIPAL ENGINEER, DESIGN ENGINEER, AND LOCAL DEPARTMENT OF PUBLIC WORKS, 72 HOURS PRIOR TO START OF WORK.
   C. INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO SITE DISTURBANCE.
   D. IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR SHALL BE REQUIRED TO CALL THE BOARD OF PUBLIC UTILITIES ONE CALL DAMAGE PROTECTION SYSTEM FOR UTILITY MARK OUT IN ADVANCE OF ANY EXCAVATION.
   E. LOCATING AND PROTECTING ALL UTILITIES AND SERVICES, INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN AND ADJACENT TO THE LIMITS OF PROJECT ACTIVITIES. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES.
   F. PROTECTING AND MAINTAINING IN OPERATION, ALL ACTIVE UTILITIES AND SYSTEMS THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.
   G. ARRANGING FOR AND COORDINATING WITH THE APPLICABLE UTILITY SERVICE PROVIDER(S) FOR THE TEMPORARY OR PERMANENT TERMINATION OF SERVICE REQUIRED BY THE PROJECT PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE THE UTILITY ENGINEER AND OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTIONAL AND UTILITY COMPANY REQUIREMENTS.
   H. COORDINATION WITH UTILITY COMPANIES REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES. WORK REQUIRED TO BE DONE "OFF-PEAK" SHALL BE DONE AT NO ADDITIONAL COST TO THE OWNER.
   I. IN THE EVENT THE CONTRACTOR DISCOVERS ANY HAZARDOUS MATERIAL, THE REMOVAL OF WHICH IS NOT ADDRESSED IN THE PROJECT PLANS AND SPECIFICATIONS, THE CONTRACTOR SHALL IMMEDIATELY CEASE ALL WORK AND NOTIFY THE OWNER AND ENGINEER OF THE DISCOVERY OF SUCH MATERIALS.
6. COLLIERS ENGINEERING & DESIGN IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR IS TO PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL THE OSHA REQUIREMENTS TO ENSURE PUBLIC AND CONTRACTOR SAFETY.
7. THE CONTRACTOR SHALL PROVIDE ALL THE "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON OR OFF SITE. THE CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN. ALL REPAIRS SHALL USE NEW MATERIAL. THE REPAIRS SHALL RESTORE THE ITEM TO THE PRE-DEMOLITION CONDITION. SUCH REPAIRS SHALL BE PERFORMED AT THE CONTRACTOR'S SOLE EXPENSE.
8. THE CONTRACTOR SHALL NOT PERFORM ANY EARTH MOVEMENT ACTIVITIES, DEMOLITION OR REMOVAL OF FOUNDATION WALLS, FOOTINGS, OR OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE UNLESS IT IS IN STRICT ACCORDANCE WITH THE PROJECT PLANS AND SPECIFICATIONS, AND/OR UNDER THE WRITTEN DIRECTION OF THE OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
9. CONTRACTOR SHALL BACKFILL ALL EXCAVATION RESULTING FROM, OR INCIDENTAL TO, DEMOLITION ACTIVITIES. BACKFILL SHALL BE ACCOMPLISHED WITH APPROVED BACKFILL MATERIALS, AND SHALL BE SUFFICIENTLY COMPACTED TO SUPPORT NEW IMPROVEMENTS AND IN COMPLIANCE WITH THE RECOMMENDATIONS IN THE GEOTECHNICAL REPORT. BACKFILLING SHALL OCCUR IMMEDIATELY AFTER DEMOLITION ACTIVITIES, AND SHALL BE DONE SO AS TO PREVENT WATER ENTERING THE EXCAVATION. FINISHED SURFACES SHALL BE GRADED TO PROMOTE POSITIVE DRAINAGE.
10. EXPLOSIVES SHALL NOT BE USED WITHOUT PRIOR WRITTEN CONSENT OF BOTH THE OWNER AND ALL APPLICABLE GOVERNMENTAL AUTHORITIES. ALL THE REQUIRED PERMITS AND EXPLOSIVE CONTROL MEASURES THAT ARE REQUIRED BY THE FEDERAL, STATE AND LOCAL GOVERNMENTS SHALL BE IN PLACE PRIOR TO STARTING AN EXPLOSIVE PROGRAM. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES.
11. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH THE CURRENT FHWA "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), AS WELL AS FEDERAL, STATE AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS OR ROADWAY RIGHT-OF-WAY.
12. CONTRACTOR SHALL CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY PRIOR TO THE COMMENCEMENT OF ANY ROAD OPENING OR DEMOLITION ACTIVITIES IN OR ADJACENT TO THE RIGHT-OF-WAY.
13. DEMOLITION ACTIVITIES AND EQUIPMENT SHALL NOT USE AREAS OUTSIDE THE DEFINED PROJECT LIMIT LINE AND/OR LIMIT OF DISTURBANCE, WITHOUT WRITTEN PERMISSION OF THE OWNER AND ALL GOVERNMENTAL AGENCIES HAVING JURISDICTION.
14. THE CONTRACTOR SHALL USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, ADJACENT STRUCTURES AND IMPROVEMENTS SHALL BE CLEANED OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.
15. CONTRACTOR IS RESPONSIBLE TO SAFEGUARD SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.
16. CONTRACTOR IS RESPONSIBLE FOR SITE JOB SAFETY, WHICH SHALL INCLUDE BUT NOT LIMITED TO THE INSTALLATION AND MAINTENANCE OF BARRIERS, FENCING AND OTHER APPROPRIATE SAFETY ITEMS NECESSARY TO PROTECT THE PUBLIC FROM AREAS OF CONSTRUCTION AND CONSTRUCTION ACTIVITY.
17. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION AS TO THE MEANS AND METHODS TO BE USED TO ACCOMPLISH THAT WORK. ALL MEANS AND METHODS UTILIZED ARE TO BE IN STRICT ACCORDANCE WITH ALL STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.
18. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL MUNICIPAL, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES. THE CONTRACTOR SHALL MAINTAIN RECORDS TO DEMONSTRATE PROPER DISPOSAL ACTIVITIES, TO BE PROVIDED TO THE OWNER UPON REQUEST.
19. CONTRACTOR SHALL MAINTAIN A RECORD SET OF PLANS UPON WHICH IS INDICATED THE LOCATION OF EXISTING UTILITIES THAT ARE CAPPED, ABANDONED IN PLACE, OR RELOCATED DUE TO DEMOLITION ACTIVITIES. THIS RECORD DOCUMENT SHALL BE PREPARED IN A NEAT AND WORKMAN-LIKE MANNER, AND TURNED OVER TO THE OWNER/DEVELOPER UPON COMPLETION OF THE WORK.
20. CONTRACTOR IS RESPONSIBLE FOR TAKING THE APPROPRIATE MEASURES TO ENSURE THE STRUCTURAL STABILITY OF SIDEWALKS, PAVEMENT, DRAINAGE STRUCTURES, ETC. WHICH ARE TO REMAIN. CONTRACTOR WILL BE RESPONSIBLE FOR REPAIRING DAMAGE DONE TO THE AFOREMENTIONED ITEMS. THE REPAIR SHALL RESTORE SUCH TO A CONDITION EQUIVALENT TO OR BETTER THAN THE EXISTING CONDITIONS AND IN ACCORDANCE WITH ALL APPLICABLE CODES.
21. TREE CLEARING AND REMOVAL SHALL OCCUR BETWEEN OCTOBER 1ST TO MARCH 31ST, TO MITIGATE POTENTIAL IMPACTS TO THE INDIANA BAT.

SUBSURFACE UTILITY INFORMATION AND ROUTING IS INCOMPLETE AND IS UNDER INVESTIGATION BY THE PROJECT SURVEYOR



DEMOLITION LEGEND

- PROPERTY BOUNDARY
- EXISTING CURB
- DEPRESSED CURB
- PAVEMENT STRIPING
- OVERHEAD WIRES — OHW — OHW — OHW —
- EASEMENTS
- MAJOR CONTOUR
- MINOR CONTOUR
- STORMWATER PIPES
- TREEROW / HEDGE
- TREELINE
- BOUNDARY EVIDENCE
- SIGN
- POST / BOLLARD
- UTILITY POLE
- GUY WIRE
- LIGHT POLE
- SANITARY MANHOLE
- SANITARY CLEANOUT
- DRAINAGE MANHOLE
- CATCH BASIN

TBR = TO BE REMOVED
UTP = UTILITY POLE
DI = DRAIN INLET
CB = CATCH BASIN
GR. = GRATE
CO = CLEANOUT

30 0 30 60
SCALE : 1" = 30'
SELECT LINEAR UNIT OF MEASURE

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2023\23011468A\Engineering\Site Plans\C-DEMO.dwg|C-02 DEMOLITION By: KYLE SHALLOW

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

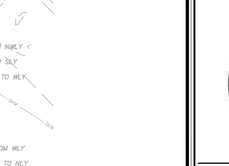
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FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION



Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM
PROJECT NUMBER:	DRAWING NAME:		
23010468A	C-DEMO		

SHEET TITLE:
EXISTING CONDITIONS & SITE DEMOLITION PLAN

SHEET NUMBER:
02 of 18

ZONING DISTRICT:

L: (LINKAGE DISTRICT)
USE PERMITTED BY RIGHT: RETAIL
USE PERMITTED BY RIGHT: OFFICE
USE PERMITTED BY RIGHT: MULTIFAMILY DWELLING
-IF THE BUILDING FACES THE NORTH SIDE OF BEEKMAN STREET BETWEEN ROUTE 9D AND WEST MAIN STREET
-SUBJECT TO A REQUIREMENT THAT ANY DWELLING UNIT SHALL ONLY BE LOCATED ON THE UPPER STORIES OR AT LEAST 50 FEET BEHIND THE FACADE IN THE REAR PORTION OF THE GROUND FLOOR

HDLO: (HISTORIC DISTRICT AND LANDMARK OVERLAY ZONE)

TABLE OF BULK REQUIREMENTS

L - LINKAGE DISTRICT

MINIMUM	REQUIRED	PROVIDED	REMARKS
LANDSCAPED AREA	15%	23.0%	OK
LOT AREA	N/A	N/A	OK
LOT AREA PER UNIT	N/A	N/A	OK
LOT WIDTH	N/A	N/A	OK
LOT DEPTH	75 FT.	106 FT.	OK
FRONT YARD SETBACK	0 FT.	1 FT.	OK
SIDE YARD SETBACK	0 FT.	1 FT.	OK
REAR YARD SETBACK	25 FT.	48 FT.	OK
DISTANCE BETWEEN BUILDINGS SAME LOT	N/A	N/A	OK
MAXIMUM			
BUILDING HEIGHT	4 STORIES AND 48 FT.	4 STORIES AND ≤48 FT.	OK
BUILDING COVERAGE	N/A	N/A	OK
UNITS PER BUILDING	N/A	N/A	OK
FRONT YARD SETBACK	20 FT.	17.9 FT.	OK
SIDE YARD SETBACK	30 FT.	N/A	OK

ZONING DISTRICT:

R1-7.5: (ONE FAMILY RESIDENTIAL DISTRICT (7,500 SF/DWELLING))
NO USE PROPOSED IN R1-7.5 DISTRICT

TABLE OF BULK REQUIREMENTS

R1-7.5 - ONE FAMILY RESIDENTIAL DISTRICT

MINIMUM	REQUIRED	PROVIDED	REMARKS
LANDSCAPED AREA	15%	NO STRUCTURE PROPOSED IN R1-7.5 DISTRICT	OK
LOT AREA	7,500 SF		OK
LOT AREA PER UNIT	7,500 SF		OK
LOT WIDTH	75 FT.		OK
LOT DEPTH	100 FT.		OK
FRONT YARD SETBACK	15 FT.		OK
SIDE YARD SETBACK	10 FT.		OK
REAR YARD SETBACK	25 FT.		OK
DISTANCE BETWEEN BUILDINGS SAME LOT	N/A		OK
WELL-DESIGNED AND LANDSCAPED RECREATION OR USABLE OPEN SPACE AREA IN REAR YARD	100 SF PER DWELLING UNIT		OK
MAXIMUM			
BUILDING HEIGHT	2.5 STORIES AND 35 FT.		OK
BUILDING COVERAGE	30%		OK
UNITS PER BUILDING	N/A		OK
FRONT YARD SETBACK	35 FT.		OK
SIDE YARD SETBACK	N/A		OK

PARKING REQUIREMENTS:

REQUIRED

RESIDENTIAL:
1 SPACE PER UNIT
64 DWELLING UNITS = 64 SPACES

RETAIL:
3 SPACES PER 1,000 SF OF GFA
12,600 SF OF RETAIL SPACE = 38 SPACES

TOTAL PARKING REQUIRED = 102 SPACES

PROVIDED

TOTAL PARKING PROVIDED = 83 SPACES
(BASED ON SHARED PARKING ANALYSIS PROVIDED IN THE T.I.S., PREPARED BY COLLIERS ENGINEERING & DESIGN, WHICH ACCOUNTS FOR ALL RETAIL USES IN THE COMMERCIAL SPACE.)

LOADING REQUIREMENTS:

REQUIRED

RETAIL:
1 SPACE FOR THE FIRST 7,500 SF OF GFA AND 1 SPACE FOR EACH ADDITIONAL 10,000 SF OF GFA OR MAJOR PORTION THEREOF, EXCEPT THAT NO BERTHS SHALL BE REQUIRED FOR BUILDINGS OF LESS THAN 5,000 SQUARE FEET OF GFA

BUILDING 1: 8,670 SF OF RETAIL SPACE = 1 LOADING SPACE
BUILDING 2: 3,930 SF OF RETAIL SPACE = 0 LOADING SPACES

PROVIDED

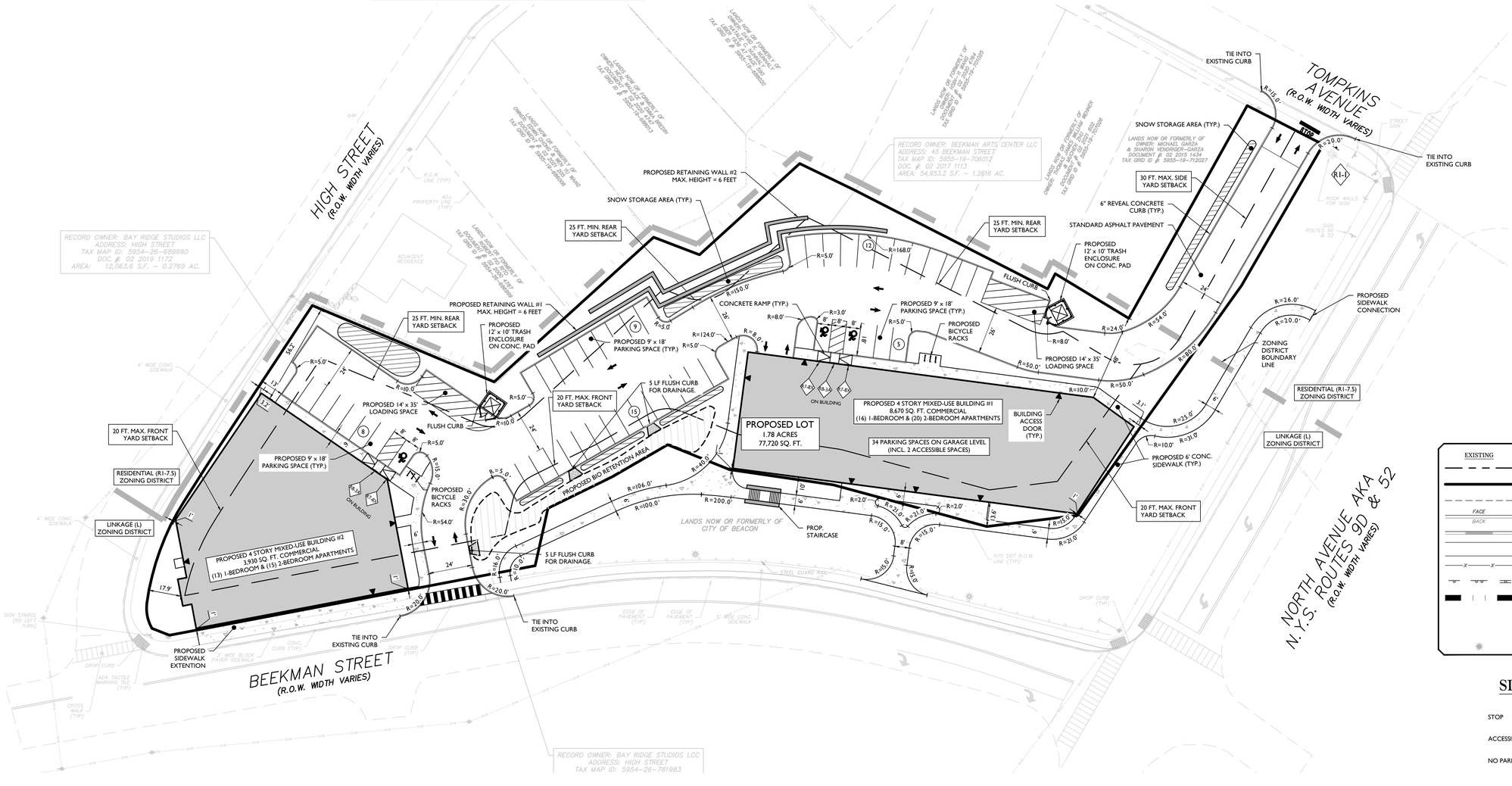
TOTAL LOADING SPACES PROVIDED:
EAST BLDG: = 1 LOADING SPACE
WEST BLDG: = 1 LOADING SPACE

TAX LOTS:

5955-19-706012
AREA = 1.26 ACRES
54,953 S.F.

5954-26-781983
AREA = 0.25 ACRES
10,700 S.F.

5954-26-689990
AREA = 0.28 ACRES
12,064 S.F.


HIGH STREET
(R.O.W. WIDTH VARIES)
BEEKMAN STREET
(R.O.W. WIDTH VARIES)
TOMPKINS AVENUE
(R.O.W. WIDTH VARIES)
NORTH AVENUE AKA N.Y.S. ROUTES 9D & 52
(R.O.W. WIDTH VARIES)
RECORD OWNER: BAY RIDGE STUDIOS LLC
ADDRESS: HIGH STREET
TAX MAP ID: 5954-26-689990
DOC. #: 02 2019 1172
AREA: 12,063.6 S.F. – 0.2769 AC.
RECORD OWNER: BEEKMAN ARTS CENTER LLC
ADDRESS: 45 BEEKMAN STREET
TAX MAP ID: 5955-19-706012
DOC. #: 02 2017 1113
AREA: 54,953.2 S.F. – 1.2616 AC.
RECORD OWNER: BAY RIDGE STUDIOS LLC
ADDRESS: HIGH STREET
TAX MAP ID: 5954-26-781983
PROPOSED LOT
1.78 ACRES
77,720 SQ. FT.
PROPOSED 4 STORY MIXED-USE BUILDING #1
8,670 SQ. FT. COMMERCIAL
(16) 1-BEDROOM & (20) 2-BEDROOM APARTMENTS
34 PARKING SPACES ON GARAGE LEVEL
(INCL. 2 ACCESSIBLE SPACES)
BUILDING ACCESS DOOR (TYP.)
PROPOSED 4 STORY MIXED-USE BUILDING #2
3,930 SQ. FT. COMMERCIAL
(13) 1-BEDROOM & (15) 2-BEDROOM APARTMENTS
PROPOSED BIO RETENTION AREA
PROPOSED RETAINING WALL #1
MAX. HEIGHT = 6 FEET
PROPOSED RETAINING WALL #2
MAX. HEIGHT = 6 FEET
PROPOSED 12' x 10' TRASH ENCLOSURE ON CONC. PAD
PROPOSED 14' x 35' LOADING SPACE
PROPOSED 9' x 18' PARKING SPACE (TYP.)
PROPOSED BICYCLE RACKS
PROPOSED SIDEWALK EXTENTION
PROPOSED SIDEWALK CONNECTION
PROPOSED 6' CONC. SIDEWALK (TYP.)
PROPOSED 12' x 10' TRASH ENCLOSURE ON CONC. PAD
PROPOSED 9' x 18' PARKING SPACE (TYP.)
PROPOSED BICYCLE RACKS
PROPOSED 14' x 35' LOADING SPACE
SNOW STORAGE AREA (TYP.)
CONCRETE RAMP (TYP.)
FLUSH CURB
5 LF FLUSH CURB FOR DRAINAGE.
PROP. STAIRCASE
TIE INTO EXISTING CURB
6" REVEAL CONCRETE CURB (TYP.)
STANDARD ASPHALT PAVEMENT
30 FT. MAX. SIDE YARD SETBACK
25 FT. MIN. REAR YARD SETBACK
20 FT. MAX. FRONT YARD SETBACK
20 FT. MAX. FRONT YARD SETBACK
ZONING DISTRICT BOUNDARY LINE
RESIDENTIAL (R1-7.5) ZONING DISTRICT
LINKAGE (L) ZONING DISTRICT
RESIDENTIAL (R1-7.5) ZONING DISTRICT
LINKAGE (L) ZONING DISTRICT
LANDS NOW OR FORMERLY OF CITY OF BEACON
LANDS NOW OR FORMERLY OF OWNER: MICHAEL GARZA & SHARON VENDRIGER-GARZA DOCUMENT # 02 2015 1434 TAX GRID ID #: 5955-19-712027
LANDS NOW OR FORMERLY OF OWNER: THOMAS MCCARTHY DOCUMENT # 02 2015 1552 TAX GRID ID #: 5955-19-712026
LANDS NOW OR FORMERLY OF OWNER: DOUGLAS & JOANNE MARCELLI DOCUMENT # 02 2015 1552 TAX GRID ID #: 5955-19-712025
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LANDS NOW OR FORMERLY OF OWNER: DOUGLAS & JOANNE MARCELLI DOCUMENT # 02 2015 1552 TAX GRID ID #: 5955-19-711893
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LANDS NOW OR FORMERLY OF OWNER: DOUGLAS & JOANNE MARCELLI DOCUMENT # 02 2015 1552 TAX GRID ID #: 5955-19-711868
LANDS NOW OR FORMERLY OF OWNER: DOUGLAS & JOANNE MARCELLI DOCU

GRADING NOTES:

1. PROPOSED GRADE ELEVATIONS SHOWN AT BUILDING LINE ARE GROUND ELEVATIONS.
2. PROPOSED SPOT ELEVATIONS IN PAVEMENT AREAS ARE TOP OF FINISHED PAVEMENT.
3. PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING FOUNDATION.
4. LANDSCAPED AND LAWN AREAS THAT ARE COMPACTED DURING CONSTRUCTION SHALL BE RESTORED PER THE NYS DEC DEEP-RIPPING AND DECOMPACTION MANUAL. (SEE SWPPP APPENDIX 12)

ADA INSTRUCTIONS TO CONTRACTOR:

1. CONTRACTOR SHALL EXERCISE APPROPRIATE CARE AND PRECISION IN CONSTRUCTION OF ADA ACCESSIBLE COMPONENTS FOR THE SITE. THESE COMPONENTS, AS CONSTRUCTED, MUST COMPLY WITH THE LATEST ADA STANDARDS FOR ACCESSIBLE DESIGN. FINISHED SURFACES ALONG THE ACCESSIBLE ROUTE OF TRAVEL FROM PARKING SPACE, PUBLIC TRANSPORTATION, PEDESTRIAN ACCESS, INTER-BUILDING ACCESS, TO POINTS OF ACCESSIBLE BUILDING ENTRANCE/EGRESS, SHALL COMPLY WITH THESE ADA CODE REQUIREMENTS. THESE INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING:

   (NOTE: THIS LIST IS NOT INTENDED TO CAPTURE EVERY APPLICABLE FEDERAL, STATE AND LOCAL RULE AND REGULATION. THE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH THE LAW, WHETHER OR NOT STATED SPECIFICALLY HEREIN):

   A. PARKING SPACES AND PARKING AISLES - SLOPE SHALL NOT EXCEED 1:48 (1/4" PER FOOT OR NOMINALLY 2.0%) IN ANY DIRECTION.

   B. CURB RAMPS- SLOPES SHALL NOT EXCEED 1:12 (8.3%).

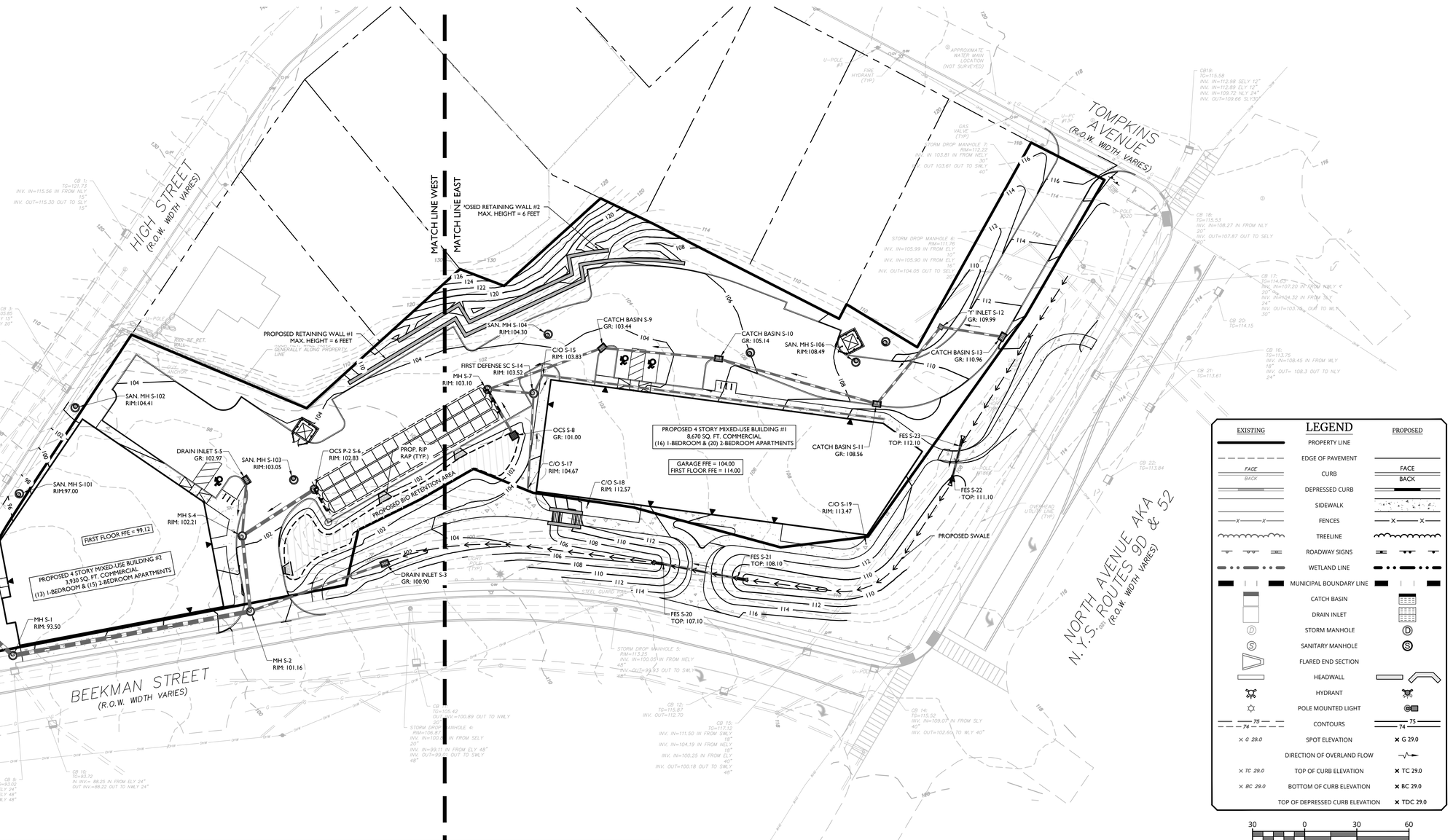
   C. LANDINGS -SHALL BE PROVIDED AT EACH END OF RAMPS, SHALL PROVIDE POSITIVE DRAINAGE, AND SHALL NOT EXCEED 1:48 (1/4" PER FOOT OR NOMINALLY 2.0%) IN ANY DIRECTION.

   D. PATH OF TRAVEL ALONG ACCESSIBLE ROUTE - SHALL PROVIDE A 36 INCH OR GREATER UNOBSTRUCTED WIDTH OF TRAVEL. (CAR OVERHANGS CANNOT REDUCE THIS MINIMUM WIDTH), THE SLOPE SHALL BE NO GREATER THAN 1 :20 (5.0%) IN THE DIRECTION OF TRAVEL, AND SHALL NOT EXCEED 1:48 (1/4" PER FOOT OR NOMINALLY 2.0%) IN CROSS SLOPE.

   E. WHERE PATH OF TRAVEL WILL BE GREATER THAN 1:20 (5.0%), AN ADA RAMP WITH A MAXIMUM SLOPE OF 1:12 (8.3%), FOR A MAXIMUM DISTANCE OF 30 FEET, SHALL BE PROVIDED. THE RAMP SHALL HAVE ADA HAND RAILS AND "LEVEL" LANDINGS ON EACH END THAT ARE SLOPED NO MORE THAN 1:48 (1/4" PER FOOT OR NOMINALLY 2.0%) FOR POSITIVE DRAINAGE.

   F. DOORWAYS - SHALL HAVE A "LEVEL" LANDING AREA ON THE EXTERIOR SIDE OF THE DOOR THAT IS SLOPED NO MORE THAN 1:48 (1/4" PER FOOT OR NORMALLY 2.0%) FOR POSITIVE DRAINAGE. THIS LANDING AREA SHALL BE NO LESS THAN 60 INCHES (5 FEET) LONG, EXCEPT WHERE OTHER WISE PERMITTED BY ADA STANDARDS FOR ALTERNATIVE DOORWAY OPENING CONDITIONS (SEE APPLICABLE CODE SECTIONS).

2. IT IS RECOMMENDED THAT THE CONTRACTOR REVIEW THE INTENDED CONSTRUCTION WITH THE LOCAL BUILDING CODE OFFICIAL PRIOR TO COMMENCING WORK.



LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	EDGE OF PAVEMENT	
FACE / BACK	CURB	FACE / BACK
	DEPRESSED CURB	
	SIDEWALK	
X X	FENCES	X X
	TREELINE	
	ROADWAY SIGNS	
	WETLAND LINE	
	MUNICIPAL BOUNDARY LINE	
	CATCH BASIN	
	DRAIN INLET	
(P)	STORM MANHOLE	(D)
(S)	SANITARY MANHOLE	(S)
	FLARED END SECTION	
	HEADWALL	
	HYDRANT	
	POLE MOUNTED LIGHT	
75 / 74	CONTOURS	75 / 74
× G 29.0	SPOT ELEVATION	× G 29.0
	DIRECTION OF OVERLAND FLOW	
× TC 29.0	TOP OF CURB ELEVATION	× TC 29.0
× BC 29.0	BOTTOM OF CURB ELEVATION	× BC 29.0
	TOP OF DEPRESSED CURB ELEVATION	× TDC 29.0

30 0 30 60

SCALE : 1" = 30'

Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

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REV	DATE	DRAWN BY	DESCRIPTION

REGISTERED LANDSCAPE ARCHITECT JUSTIN E. DATES 001964 STATE OF NEW YORK

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
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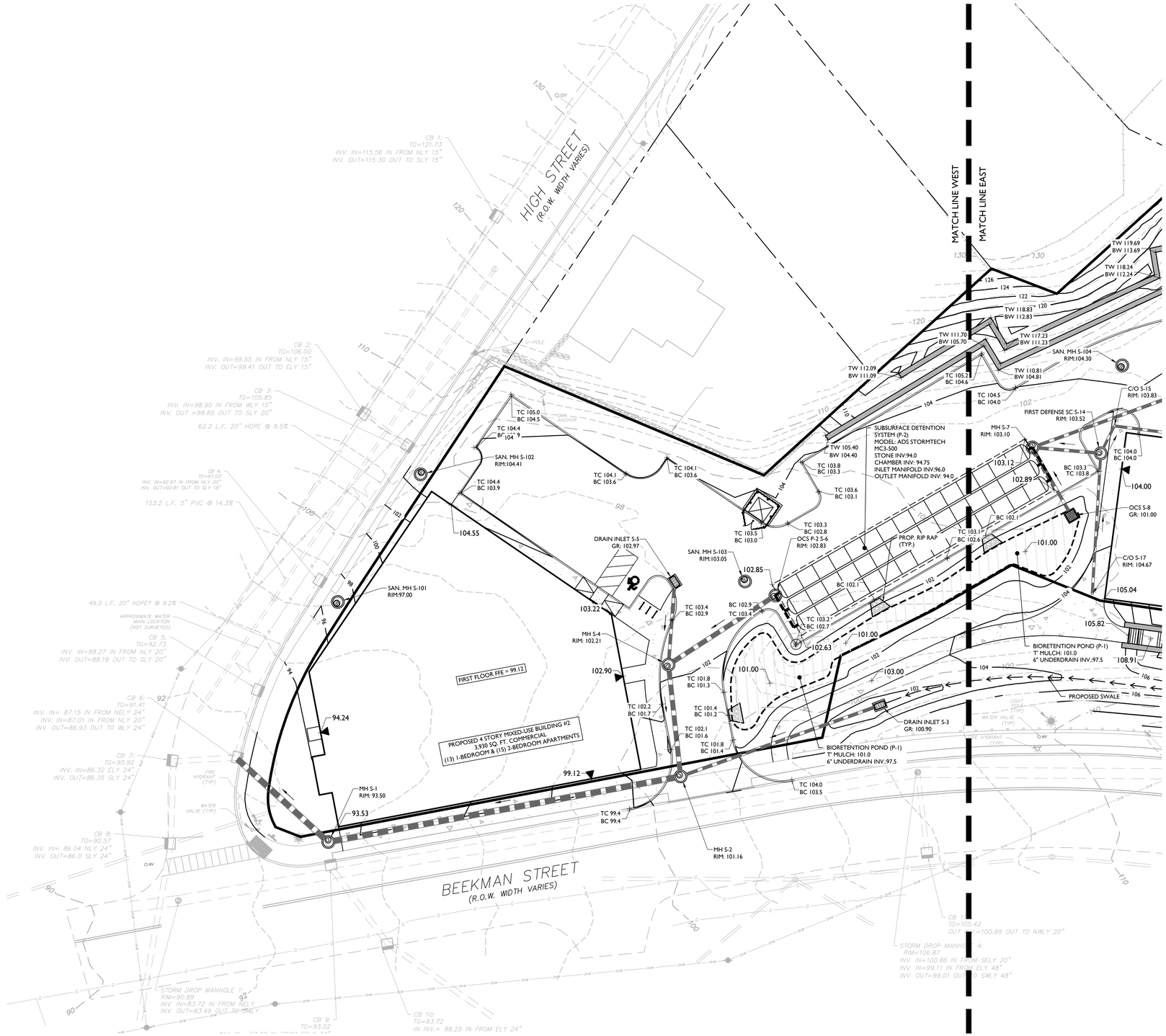
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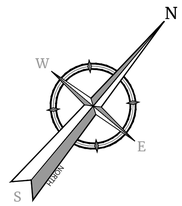
PROJECT NUMBER: 23010468A
DRAWING NAME: C-GRAD

SHEET TITLE: GRADING PLAN (OVERALL)

SHEET NUMBER: 04 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION





LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	EDGE OF PAVEMENT	
FACE / BACK	CURB	FACE / BACK
	DEPRESSED CURB	
	SIDEWALK	
X X	FENCES	X X
	TREELINE	
	ROADWAY SIGNS	
	WETLAND LINE	
	MUNICIPAL BOUNDARY LINE	
	CATCH BASIN	
	DRAIN INLET	
(D)	STORM MANHOLE	(D)
(S)	SANITARY MANHOLE	(S)
	FLARED END SECTION	
	HEADWALL	
	HYDRANT	
	POLE MOUNTED LIGHT	
75 / 74	CONTOURS	75 / 74
× G 29.0	SPOT ELEVATION	× G 29.0
	DIRECTION OF OVERLAND FLOW	
× TC 29.0	TOP OF CURB ELEVATION	× TC 29.0
× BC 29.0	BOTTOM OF CURB ELEVATION	× BC 29.0
	TOP OF DEPRESSED CURB ELEVATION	× TDC 29.0

20 0 20 40

SCALE : 1" = 20'

Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

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REV	DATE	DRAWN BY	DESCRIPTION

LICENSED PROFESSIONAL ENGINEER
JUSTIN E. DATES
STATE OF NEW YORK
001964

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
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5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
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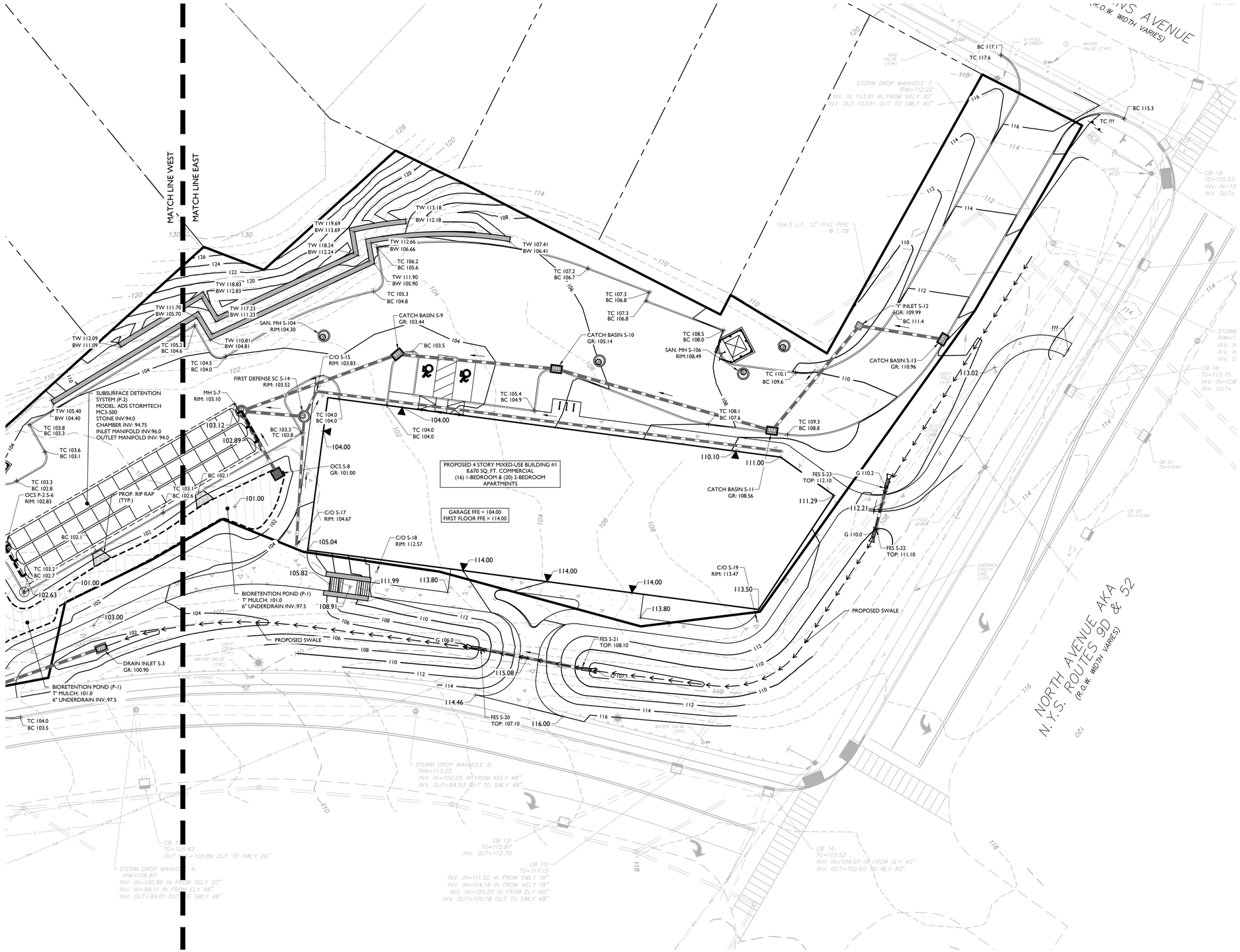
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PROJECT NUMBER: 23010468A
DRAWING NAME: C-GRAD

SHEET TITLE:
GRADING PLAN (WEST)

SHEET NUMBER:
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LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	EDGE OF PAVEMENT	
FACE / BACK	CURB	FACE / BACK
	DEPRESSED CURB	
	SIDEWALK	
X X	FENCES	X X
	TREELINE	
	ROADWAY SIGNS	
	WETLAND LINE	
	MUNICIPAL BOUNDARY LINE	
	CATCH BASIN	
	DRAIN INLET	
(D)	STORM MANHOLE	(D)
(S)	SANITARY MANHOLE	(S)
	FLARED END SECTION	
	HEADWALL	
	HYDRANT	
	POLE MOUNTED LIGHT	
75 / 74	CONTOURS	75 / 74
× G 29.0	SPOT ELEVATION	× G 29.0
	DIRECTION OF OVERLAND FLOW	
× TC 29.0	TOP OF CURB ELEVATION	× TC 29.0
× BC 29.0	BOTTOM OF CURB ELEVATION	× BC 29.0
	TOP OF DEPRESSED CURB ELEVATION	× TDC 29.0

20 0 20 40

SCALE : 1" = 20'

Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

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Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

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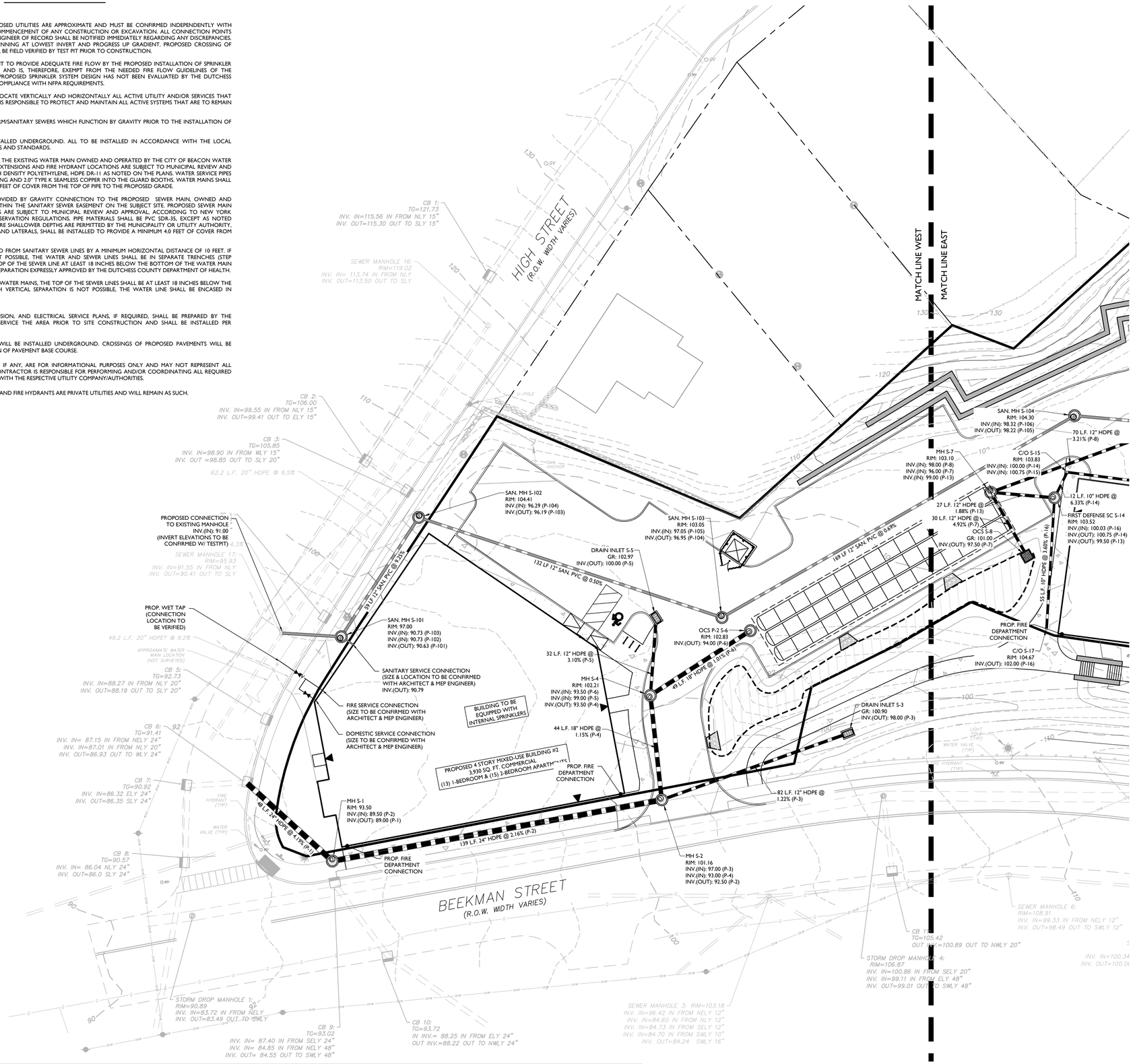
PROJECT NUMBER: 23010468A
DRAWING NAME: C-GRAD

SHEET TITLE:
GRADING PLAN (EAST)

SHEET NUMBER:
06 of 18

UTILITY NOTES

1. LOCATION OF ALL EXISTING AND PROPOSED UTILITIES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. ALL CONNECTION POINTS SHALL BE VERIFIED IN FIELD BY GC AND ENGINEER OF RECORD SHALL BE NOTIFIED IMMEDIATELY REGARDING ANY DISCREPANCIES. CONSTRUCTION SHALL COMMENCE BEGINNING AT LOWEST INVERT AND PROGRESS UP GRADIENT. PROPOSED CROSSING OF EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO CONSTRUCTION.
2. THIS PROJECT HAS INDICATED THE INTENT TO PROVIDE ADEQUATE FIRE FLOW BY THE PROPOSED INSTALLATION OF SPRINKLER SYSTEMS MEETING NFPA REQUIREMENTS, AND IS, THEREFORE, EXEMPT FROM THE NEEDED FIRE FLOW GUIDELINES OF THE INSURANCE SERVICES OFFICE (ISO). THE PROPOSED SPRINKLER SYSTEM DESIGN HAS NOT BEEN EVALUATED BY THE DUTCHESS COUNTY DEPARTMENT OF HEALTH FOR COMPLIANCE WITH NFPA REQUIREMENTS.
3. THE CONTRACTOR SHALL DEFINE AND LOCATE VERTICALLY AND HORIZONTALLY ALL ACTIVE UTILITY AND/OR SERVICES THAT ARE TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE SYSTEMS THAT ARE TO REMAIN DURING SITE CONSTRUCTION.
4. THE CONTRACTOR TO INSTALL ALL STORM/SANITARY SEWERS WHICH FUNCTION BY GRAVITY PRIOR TO THE INSTALLATION OF ALL OTHER UTILITIES.
5. ALL NEW UTILITIES/SERVICES TO BE INSTALLED UNDERGROUND. ALL TO BE INSTALLED IN ACCORDANCE WITH THE LOCAL UTILITY/SERVICE PROVIDER SPECIFICATIONS AND STANDARDS.
6. WATER SERVICE IS TO BE PROVIDED FROM THE EXISTING WATER MAIN OWNED AND OPERATED BY THE CITY OF BEACON WATER DEPARTMENT. PROPOSED WATER MAIN EXTENSIONS AND FIRE HYDRANT LOCATIONS ARE SUBJECT TO MUNICIPAL REVIEW AND APPROVAL. PIPE MATERIALS SHALL BE HIGH DENSITY POLYETHYLENE, HDPE DR-11 AS NOTED ON THE PLANS. WATER SERVICE PIPES TO BE 4.0" DIAMETER HDPE TO THE BUILDING AND 2.0" TYPE K SEAMLESS COPPER INTO THE GUARD BOOTHS. WATER MAINS SHALL BE INSTALLED TO PROVIDE A MINIMUM 4.0 FEET OF COVER FROM THE TOP OF PIPE TO THE PROPOSED GRADE.
7. SANITARY SEWER SERVICE SHALL BE PROVIDED BY GRAVITY CONNECTION TO THE PROPOSED SEWER MAIN, OWNED AND OPERATED BY THE CITY OF BEACON, WITHIN THE SANITARY SEWER EASEMENT ON THE SUBJECT SITE. PROPOSED SEWER MAIN EXTENSIONS AND MANHOLE LOCATIONS ARE SUBJECT TO MUNICIPAL REVIEW AND APPROVAL, ACCORDING TO NEW YORK DEPARTMENT OF ENVIRONMENTAL CONSERVATION REGULATIONS. PIPE MATERIALS SHALL BE PVC SDR-35, EXCEPT AS NOTED OTHERWISE ON THE PLANS. EXCEPT WHERE SHALLOWER DEPTHS ARE PERMITTED BY THE MUNICIPALITY OR UTILITY AUTHORITY, SEWER LINES, INCLUDING FORCE MAINS AND LATERALS, SHALL BE INSTALLED TO PROVIDE A MINIMUM 4.0 FEET OF COVER FROM THE TOP OF PIPE TO PROPOSED GRADE.
8. ALL WATER MAINS SHOULD BE SEPARATED FROM SANITARY SEWER LINES BY A MINIMUM HORIZONTAL DISTANCE OF 10 FEET. IF SUCH HORIZONTAL SEPARATION IS NOT POSSIBLE, THE WATER AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (STEP TRENCHES ARE PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN ENCASED IN CONCRETE OR WITH SUCH SEPARATION EXPRESSLY APPROVED BY THE DUTCHESS COUNTY DEPARTMENT OF HEALTH.
9. AT THE CROSSINGS OF SEWER LINES AND WATER MAINS, THE TOP OF THE SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE WATER LINE SHALL BE ENCASED IN CONCRETE.
10. GAS, ELECTRIC, LIGHTING, CABLE TELEVISION, AND ELECTRICAL SERVICE PLANS, IF REQUIRED, SHALL BE PREPARED BY THE RESPECTIVE UTILITY COMPANIES THAT SERVICE THE AREA PRIOR TO SITE CONSTRUCTION AND SHALL BE INSTALLED PER ORDINANCE REQUIREMENTS.
11. TELEPHONE, ELECTRIC, AND GAS LINES WILL BE INSTALLED UNDERGROUND. CROSSINGS OF PROPOSED PAVEMENTS WILL BE INSTALLED PRIOR TO THE CONSTRUCTION OF PAVEMENT BASE COURSE.
12. UTILITY RELOCATIONS SHOWN HEREON, IF ANY, ARE FOR INFORMATIONAL PURPOSES ONLY AND MAY NOT REPRESENT ALL REQUIRED UTILITY RELOCATIONS. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING AND/OR COORDINATING ALL REQUIRED UTILITY RELOCATIONS IN COOPERATION WITH THE RESPECTIVE UTILITY COMPANY/AUTHORITIES.
13. PROPOSED ON-SITE WATER SERVICE LINES AND FIRE HYDRANTS ARE PRIVATE UTILITIES AND WILL REMAIN AS SUCH.



LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	EDGE OF PAVEMENT	
FACE / BACK	CURB	FACE / BACK
	DEPRESSED CURB	
	SIDEWALK	
X X	FENCES	X X
	TREELINE	
	ROADWAY SIGNS	
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REV	DATE	DRAWN BY	DESCRIPTION

REGISTERED LANDSCAPE ARCHITECT JUSTIN E. DATES 001964 STATE OF NEW YORK
Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

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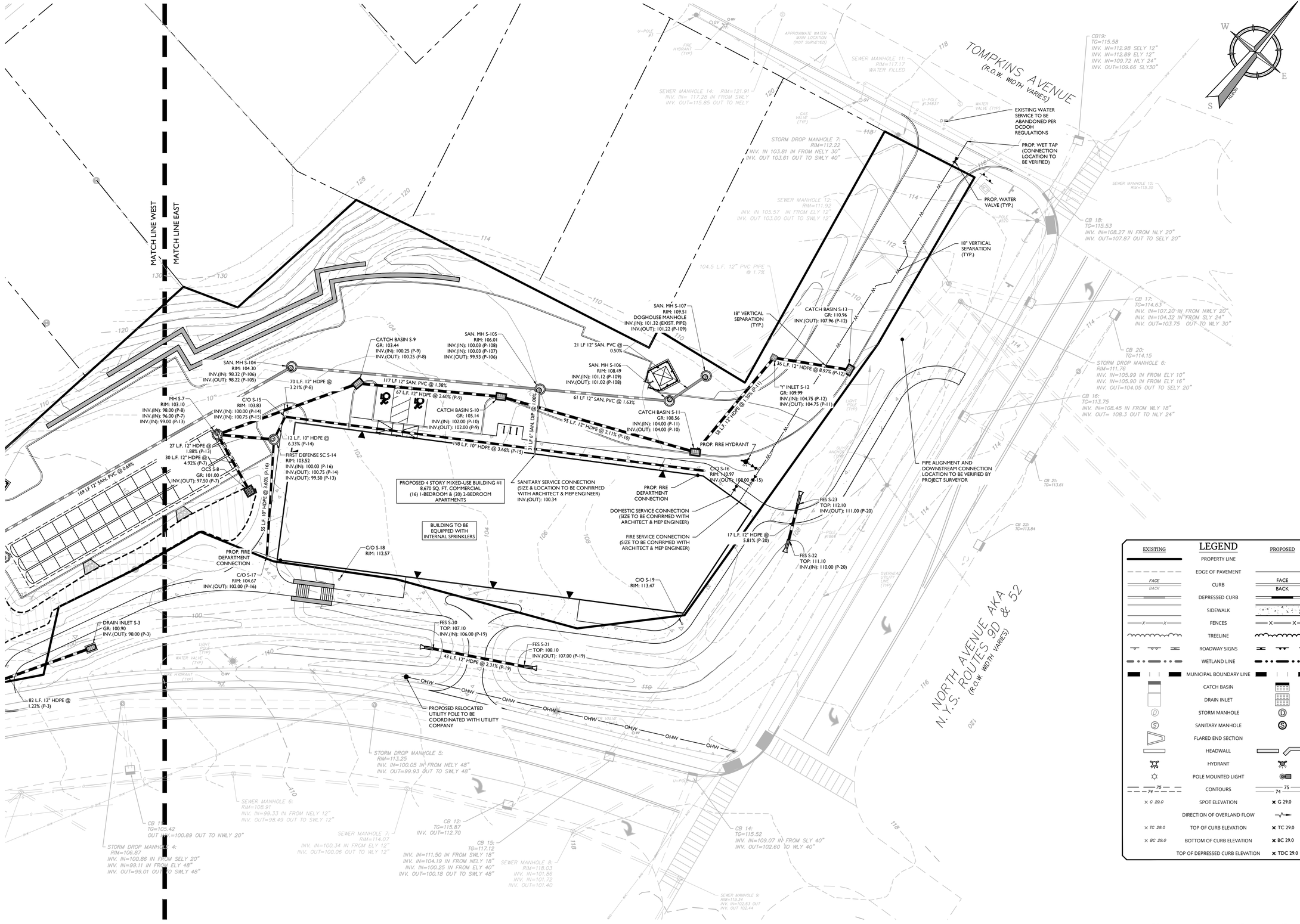
PROJECT NUMBER:	DRAWING NAME:
23010468A	C-UTIL

SHEET TITLE:
UTILITIES PLAN (WEST)

SHEET NUMBER:
07 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

2023\23010468A\Engineering\Site Plans\C-UTIL.dwg|C-07-UTILITY By: KYLE SHALLOW



LEGEND

EXISTING		PROPOSED
	PROPERTY LINE	
	EDGE OF PAVEMENT	
FACE / BACK	CURB	FACE / BACK
	DEPRESSED CURB	
	SIDEWALK	
X X	FENCES	X X
	TREELINE	
	ROADWAY SIGNS	
	WETLAND LINE	
	MUNICIPAL BOUNDARY LINE	
	CATCH BASIN	
	DRAIN INLET	
(D)	STORM MANHOLE	(D)
(S)	SANITARY MANHOLE	(S)
	FLARED END SECTION	
	HEADWALL	
	HYDRANT	
	POLE MOUNTED LIGHT	
75 / 74	CONTOURS	75 / 74
× G 29.0	SPOT ELEVATION	× G 29.0
	DIRECTION OF OVERLAND FLOW	
× TC 29.0	TOP OF CURB ELEVATION	× TC 29.0
× BC 29.0	BOTTOM OF CURB ELEVATION	× BC 29.0
	TOP OF DEPRESSED CURB ELEVATION	× TDC 29.0

20 0 20 40

SCALE : 1" = 20'

Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

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2023\23010468A\Engineering\Site Plans\C-UTIL.dwg|C-08 UTILITY By:KYLE SHALLOW

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AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER:	DRAWING NAME:
23010468A	C-UTIL

SHEET TITLE:
UTILITIES PLAN (EAST)

SHEET NUMBER:
08 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

GENERAL SOIL EROSION AND SEDIMENT CONTROL NOTES

1. ALL SOIL EROSION AND SEDIMENT CONTROL PRACTICES ARE TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
2. ANY DISTURBED AREAS THAT WILL BE LEFT EXPOSED MORE THAN FOURTEEN (14) DAYS FOR DISTURBANCES LESS THAN FIVE (5) ACRES AND SEVEN (7) DAYS FOR DISTURBANCES GREATER THAN FIVE (5) ACRES, AND NOT SUBJECT TO CONSTRUCTION TRAFFIC, WILL IMMEDIATELY RECEIVE A TEMPORARY SEEDING. IF THE SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY COVER, THE DISTURBED AREAS WILL BE MULCHED WITH STRAW, OR EQUIVALENT MATERIAL, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.
3. PERMANENT VEGETATION TO BE SEEDED ON ALL EXPOSED AREAS WITHIN FIVE (5) DAYS AFTER FINAL GRADING. MULCHING IS REQUIRED ON ALL SEEDING. WHEN HYDROSEEDING, MULCH SHALL NOT BE INCLUDED IN THE TANK WITH THE SEED.
4. ALL WORK TO BE DONE IN ACCORDANCE WITH THE 2016 NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL OR AS AMENDED.
5. A SUBBASE COURSE WILL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING AND INSTALLATION OF IMPROVEMENTS TO STABILIZE STREETS, ROADS, DRIVEWAYS, AND PARKING AREAS. IN AREAS WHERE NO UTILITIES ARE PRESENT, THE SUBBASE SHALL BE INSTALLED WITHIN FIVE (5) DAYS OF THE PRELIMINARY GRADING.
6. IMMEDIATELY FOLLOWING INITIAL DISTURBANCE OR ROUGH GRADING, ALL CRITICAL AREAS SUBJECT TO EROSION (I.E. STEEP SLOPES AND ROADWAY EMBANKMENTS) WILL RECEIVE A TEMPORARY SEEDING IN COMBINATION WITH STRAW MULCH OR A SUITABLE EQUIVALENT, AT A RATE OF TWO (2) TONS PER ACRE, ACCORDING TO STATE STANDARDS.
7. ANY STEEP SLOPES RECEIVING PIPELINE INSTALLATION WILL BE BACKFILLED AND STABILIZED DAILY, AS THE INSTALLATION CONTINUES (I.E. SLOPES GREATER THAN 3:1).
8. THE STANDARD FOR STABILIZED CONSTRUCTION ACCESS REQUIRES THE INSTALLATION OF A STONE PAD, AT ALL CONSTRUCTION DRIVEWAYS, IMMEDIATELY AFTER INITIAL SITE DISTURBANCE.
9. IN ACCORDANCE WITH THE STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOILS, ANY SOIL HAVING A PH OF 4 OR LESS OR CONTAINING IRON SULFIDES SHALL BE COVERED WITH A MINIMUM OF TWELVE (12) INCHES OF SOIL HAVING A PH OF 5 OR MORE PRIOR TO SEEDBED PREPARATION. AREAS WHERE TREES OR SHRUBS ARE TO BE PLANTED SHALL BE COVERED WITH A MINIMUM OF TWENTY-FOUR (24) INCHES OF SOIL HAVING A PH OF 5 OR MORE.
10. AT THE TIME THE SITE PREPARATION FOR PERMANENT VEGETATIVE STABILIZATION IS GOING TO BE ACCOMPLISHED, ANY SOIL THAT WILL NOT PROVIDE A SUITABLE ENVIRONMENT TO SUPPORT ADEQUATE VEGETATIVE GROUND COVER, SHALL BE REMOVED OR TREATED IN SUCH A WAY THAT IT WILL PERMANENTLY ADJUST THE SOIL CONDITIONS AND RENDER IT SUITABLE FOR VEGETATIVE GROUND COVER.
11. CONDUIT OUTLET PROTECTION MUST BE REVIEWED & SUPPLEMENTED AT ALL OUTFALLS PRIOR TO THE DRAINAGE SYSTEM BECOMING OPERATIONAL.
12. UNFILTERED DEWATERING IS NOT PERMITTED. TAKE ALL NECESSARY PRECAUTIONS DURING ALL DEWATERING OPERATIONS TO MINIMIZE SEDIMENT TRANSFER. ANY DEWATERING METHODS USED MUST BE IN ACCORDANCE WITH STATE STANDARDS.
13. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED IN ACCORDANCE WITH STATE STANDARDS FOR EROSION CONTROL.
14. ALL SOIL WASHED, DROPPED, SPILLED, OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHT-OF-WAY WILL BE REMOVED IMMEDIATELY.
15. THE PROPERTY OWNER SHALL BE RESPONSIBLE FOR ANY EROSION AND SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFFSITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
16. STOCKPILE AND STAGING LOCATIONS DETERMINED IN THE FIELD, SHALL BE PLACED WITHIN THE LIMITS OF DISTURBANCE ACCORDING TO THE CERTIFIED PLAN.
17. CONCRETE WASHOUT, DUMPSTER, & STAGING AREA LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR AND APPROVED AT THE PRE-CONSTRUCITON MEETING. THEY SHALL BE PLACED IN THE PROXIMITY OF THE CONSTRUCTION ENTRANCE AND STAGING AREAS AND SHALL BE USED PRIOR TO EXITING THE PROJECT SITE. THE LOCATION SHALL BE IN A PRACTICAL, CLEARLY DELINEATED, AREA AND BE MAINTAINED THROUGHOUT CONSTRUCTION.
18. ALL SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH THE NEW YORK STATE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
19. ALL PERMANENT SOIL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED BY THE PROPERTY OWNER, AND SHALL BECOME THEIR RESPONSIBILITY.
20. PAVEMENT AREAS ARE TO BE KEPT CLEAN AT ALL TIMES.
21. DURING CONSTRUCTION, ANY ADDITIONAL CONTROL MEASURES AS DEEMED NECESSARY TO PREVENT EROSION OR CONTROL SEDIMENT BEYOND THOSE MEASURES SHOWN ON THE APPROVED PLAN SHALL BE INSTALLED OR EMPLOYED AT THE DIRECTION OF THE MUNICIPAL ENGINEER.
22. ALL TEMPORARY, STRUCTURAL EROSION AND SEDIMENT CONTROL MEASURES CAN BE REMOVED, WHEN ALL CONSTRUCTION ACTIVITY IDENTIFIED IN THE SWPPP HAS BEEN COMPLETED, ALL AREAS OF DISTURBANCE HAVE ACHIEVED FINAL STABILIZATION** AND ALL POST-CONSTRUCTION STORMWATER MANAGEMENT PRACTICES HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE SWPPP AND ARE OPERATIONAL.
23. BOTTOM AND BERM ELEVATIONS OF TEMPORARY SEDIMENT BASINS TO BE REVIEWED WITH THE CONTRACTOR BASED ON THEIR PROPOSED CONSTRUCTION SEQUENCE FOR THE PROJECT.

CONSTRUCTION SEQUENCE

- INSTALL CONSTRUCTION ENTRANCES.
- STAKE LIMITS OF DISTURBANCE AND ORANGE CONSTRUCTION FENCE.
- INSTALL PERIMETER SILT FENCING ON DOWNHILL AREAS AS SHOWN ON PLAN.
- INSTALL SEDIMENT PONDS. INSTALL TEMPORARY SWALES TO DIRECT ALL OPEN SOIL AREA DISTURBANCE TO SEDIMENT PONDS, AS NECESSARY. LOCATIONS AND SIZE OF THE EROSIONS AND SEDIMENT CONTROL PRACTICES ARE NOTED ON THE PLAN. THESE MAY VARY DEPENDING ON THE CONTRACTOR'S SCHEDULE AND APPROACH BUT 3,600 CF OF STORAGE MUST BE PROVIDED AT A MINIMUM PER ACRE OF UPSTREAM DISTURBANCE. SEDIMENT TRAPS SHALL BE INSTALLED IN ACCORDANCE WITH THE PLANS AND DETAILS. SEDIMENT TRAPS AND BASINS SHALL BE SIZED IN ACCORDANCE WITH THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL MANUAL.
- SEDIMENT POND RESTORATION: WHEN TEMPORARY STRUCTURES HAVE SERVED THEIR INTENDED PURPOSE AND THE CONTRIBUTING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED, THE EMBANKMENT AND RESULTING SEDIMENT DEPOSITS ARE TO BE LEVELED OR OTHERWISE DISPOSED OF. SEDIMENT CAN BE DISPOSED OF BY EXPORTING IT OFF SITE FOR DISPOSAL OR BE USED AS FILL IN LAWN AREAS. SEDIMENT PONDS IN FUTURE OPEN SPACE OR LAWN AREAS MAY BE PUMPED DRY, GRADED, AND BACKFILLED. SEDIMENT PONDS IN PAVED OR STRUCTURAL AREAS MUST HAVE THE BASIN MATERIAL AND TRAPPED SEDIMENTS REMOVED, SAFELY DISPOSED OF, AND BACKFILLED WITH STRUCTURAL FILL. SEDIMENT PONDS IN LOCATIONS OF FUTURE STORMWATER PONDS MUST HAVE THE TRAPPED SEDIMENT REMOVED LEAVING THE BASIN AREA OPEN FOR THE DEVELOPMENT OF THE FINAL STORMWATER POND.
- ROUGH GRADE PROPOSED DRIVEWAY/ROAD.
- DISTURBED SOILS SHALL BE TEMPORARILY STABILIZED AS SOON AS PRACTICAL. MATERIALS STORED IN STOCKPILES SHALL BE CORDONED OFF WITH SILT FENCE PER THE APPROPRIATE SPECIFICATIONS AND DETAILS. THE OPERATOR SHALL INITIATE STABILIZATION MEASURES AS SOON AS PRACTICAL IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN (14) DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
- CONSTRUCT ROADS, DRIVES, BUILDINGS, PARKING AREAS AND INSTALL DRAINAGE SYSTEMS.
- TOPSOIL/HAYSEED LAWN AREAS.
- THE PROJECT SITE MUST MEET FINAL STABILIZATION CRITERIA PRIOR TO REMOVING ALL EROSION AND SEDIMENT CONTROL DEVICES AND CLOSING OUT THE PROJECT. LITTER AND CONSTRUCTION DEBRIS SHALL BE REMOVED AS PRACTICAL THROUGHOUT THE LIFE OF THE PROJECT.
- UPON FINAL STABILIZATION BEING MET, THE CONTRACTOR SHALL CLEAR DRAINAGE PIPES AND STRUCTURES OF ANY SEDIMENT WHICH MAY HAVE ACCUMULATED. ADDITIONAL EROSION CONTROL MEASURES SHALL BE INSTALLED, AS MAY BE NECESSARY, REQUIRED AND/OR REQUESTED BY AUTHORITIES, TO PREVENT THE INCIDENTAL DISCHARGE OF SILT LADEN RUNOFF FROM ENTERING A WATER COURSE OR A DRAINAGE SYSTEM. THE GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION ACTIVITIES STATES THAT IT IS UNLAWFUL FOR ANY PERSON TO CAUSE OR CONTRIBUTE TO A VIOLATION OF WATER QUALITY STANDARDS.
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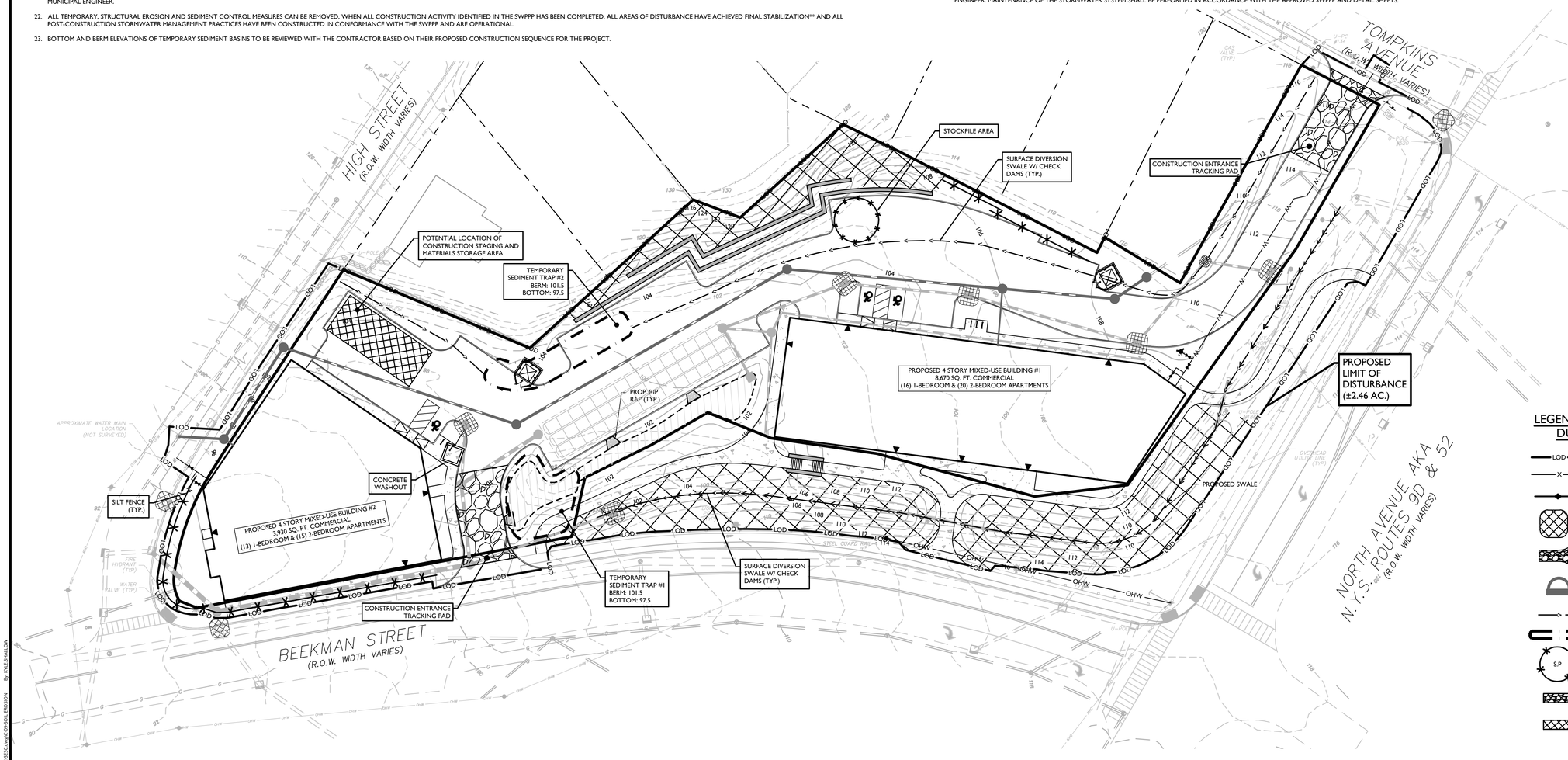
**FINAL STABILIZATION - MEANS THAT ALL SOIL DISTURBANCE ACTIVITIES HAVE CEASED AND A UNIFORM, PERENNIAL VEGETATIVE COVER WITH A DENSITY OF EIGHTY (80) PERCENT OVER THE ENTIRE PERVIOUS SURFACE HAS BEEN ESTABLISHED; OR OTHER EQUIVALENT STABILIZATION MEASURES, SUCH AS PERMANENT LANDSCAPE MULCHES, ROCK RIP-RAP OR WASHED/CRUSHED STONE HAVE BEEN APPLIED ON ALL DISTURBED AREAS THAT ARE NOT COVERED BY PERMANENT STRUCTURES, CONCRETE OR PAVEMENT.

MAINTENANCE PLAN DURING CONSTRUCTION:

INSPECTION AND MAINTENANCE SHALL BE PERFORMED IN CONFORMANCE WITH GP-0-20-001 OR AS AMENDED. ALL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CHECKED FOR STABILITY AND OPERATION FOLLOWING EVERY RUNOFF-PRODUCING RAINFALL BUT IN NO CASE LESS THAN ONCE EVERY WEEK. ANY NEEDED REPAIRS WILL BE MADE IMMEDIATELY TO MAINTAIN ALL PRACTICES AS DESIGNED AND INSTALLED FOR THE PROJECT. THE SEDIMENT TRAPS WILL BE CLEANED OUT WHEN THE LEVEL OF SEDIMENT REACHES 25% OF ITS' CAPACITY. SEDIMENT WILL BE REMOVED FROM BEHIND THE SILT FENCE WHEN IT BECOMES APPROXIMATELY 6" DEEP AT THE FENCE. THE SILT FENCE WILL BE REPAIRED AS NECESSARY TO MAINTAIN A BARRIER. ALL SEEDED AREAS WILL BE FERTILIZED, RE-SEEDED AS NECESSARY, AND MULCHED ACCORDING TO SPECIFICATIONS IN THE LANDSCAPE PLAN TO MAINTAIN A VIGOROUS, DENSE VEGETATIVE COVER.

MAINTENANCE AGREEMENT NOTE:

THE OWNER/APPLICANT SHALL ENTER INTO AN ENFORCEABLE MAINTENANCE AGREEMENT WITH THE MUNICIPALITY (IF AN MS4 COMMUNITY). RELATED TO MAINTENANCE OF STORMWATER FACILITIES. THE OWNER/APPLICANT IS RESPONSIBLE TO PERFORM ALL REQUIRED MAINTENANCE BOTH DURING CONSTRUCTION AND LONG-TERM. THE NATURE OF THE AGREEMENT IS TO ALLOW THE MUNICIPALITY TO PERFORM MAINTENANCE AT THEIR OPTION SHOULD THE OWNER/APPLICANT FAIL TO ADEQUATELY MAINTAIN THE SYSTEM AS DETERMINED BY THE MUNICIPAL ENGINEER. MAINTENANCE OF THE STORMWATER SYSTEM SHALL BE PERFORMED IN ACCORDANCE WITH THE APPROVED SWPPP AND DETAIL SHEETS.



LEGEND FOR EROSION CONTROL DURING CONSTRUCTION

- LOD — CONSTRUCTION LIMIT LINE
- X — SILT FENCE
- ORANGE CONSTRUCTION FENCE
- STORM INLET SEDIMENT TRAP
- STABILIZED CONSTRUCTION ENTRANCE
- SEDIMENT TRAP OUTLET
- TEMPORARY SWALE
- TEMPORARY SEDIMENT BASIN
- S.P — MATERIAL STOCKPILE
- CHECK DAM
- SLOPE MATTING

30 0 30 60

SCALE : 1" = 30'

SELECT LINEAR UNIT OF MEASURE

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2023\23010468A\Engineering\Site Plans\C-SESC.dwg|C-09 SOIL EROSION By: KYLE SHALLOW

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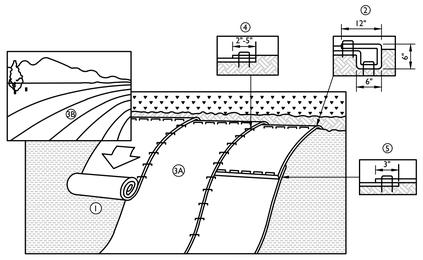
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PROJECT NUMBER: 23010468A	DRAWING NAME: C-SESC		

SHEET TITLE:
SOIL EROSION & SEDIMENT CONTROL PLAN

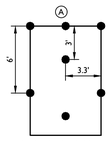
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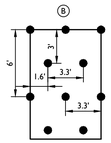


SLOPE INSTALLATION

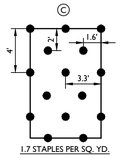
STAPLES PATTERN GUIDE
6.67' WIDE ROLLS



0.7 STAPLES PER SQ. YD.



1.15 STAPLES PER SQ. YD.



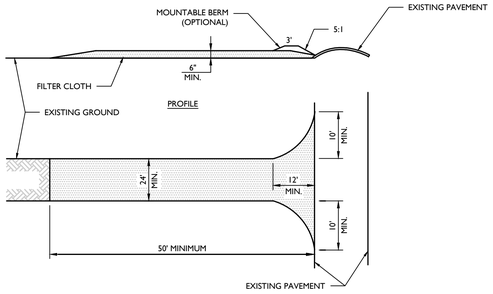
1.7 STAPLES PER SQ. YD.

NOTES:

1. PREPARE SOIL BEFORE INSTALLING ROLLED EROSION CONTROL PRODUCTS (RECPS), INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER AND SEED.
   * WHEN USING MATTING WITH SEED, DO NOT SEED THE AREA. FOLLOW MANUFACTURER'S RECOMMENDATIONS.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" DEEP x 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECPS WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
3. ROLL THE RECP'S (A.) DOWN OR (B.) HORIZONTALLY STEP BY STEP ACROSS THE SLOPE TAMPERING IT DOWN ALONG THE WAY. RECP'S SHALL UNROLL WITH APPROPRIATE SIDE TIGHTLY AGAINST THE SOIL SURFACE. RECP'S MUST BE SECURELY FASTENED TO SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE STAPLE PATTERN GUIDE. WHEN USING THE DOT SYSTEM, STAPLES/STAKESSHOULD BE PLACED THROUGH EACH OF THE COLORED DOTS CORRESPONDING TO THE APPROPRIATE STAPLE PATTERN.
4. THE EDGES OF PARALLEL RECP'S MUST BE STAKED WITH APPROXIMATELY 2" TO 5" OVERLAP DEPENDING ON RECP'S TYPE.
5. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE RECP'S WIDTH.
   * IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE RECP'S.

EROSION MATTING (CURLEX ENFORCER I) DETAIL

NOT TO SCALE | MCNY-SOIL-EROS-2200 | 07/01/19



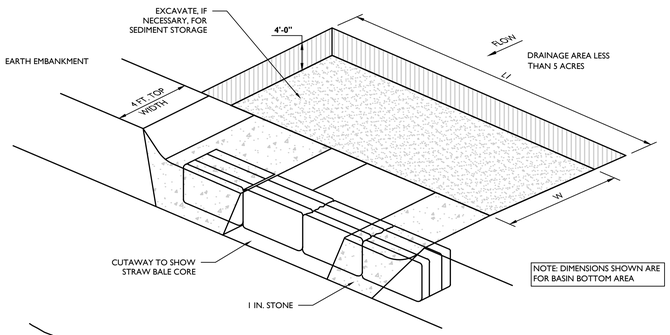
PLAN VIEW

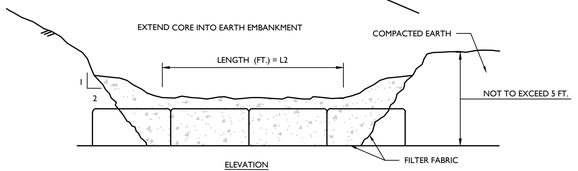
NOTES:

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT. LENGTH: NOT LESS THAN 50 FEET. THICKNESS: NOT LESS THAN (6) INCHES.
2. WIDTH - 24'
3. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
4. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTING BERM WITH 5:1 SLOPES WILL BE PERMITTED.
5. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
6. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED BY THE CONTRACTOR AS REQUIRED.

STABILIZED CONSTRUCTION ENTRANCE DETAIL

NOT TO SCALE | MCNY-SOIL-EROS-1000 | 07/01/19





ELEVATION

TO BE INSTALLED PRIOR TO GRADING OR FILLING IN THE DRAINAGE AREA THEY ARE TO PROTECT. TRAPS THAT ARE TO FUNCTION DURING BUILDING CONSTRUCTION MUST NOT BE LOCATED WITHIN 20 FEET OF A PROPOSED BUILDING FOUNDATION. WHILE TRAPS SHOULD BE SITED TO MAXIMIZE STORAGE BENEFIT, THEY SHOULD NOT BE LOCATED IN WETLANDS OR WETLAND BUFFER AREAS, OR IN EXISTING WATERCOURSES.

SEE EROSION AND SEDIMENT CONTROL PLAN FOR LOCATIONS.

INSTALLATION NOTES:

1. AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED, AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED AS WELL.
2. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVER SIZED STONES, ROCKS, ORGANIC MATERIAL AND OTHER QUESTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVERSING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED.
3. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
4. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
5. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION IS MINIMIZED.
6. THE STRUCTURE SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
7. ALL CUT AND FILL SLOPES SHALL BE 1 : 2 OR FLATTER.
8. THE STONE USED IN THE OUTLET SHALL BE SMALL RIPRAP 4"-8" ALONG WITH A 1' THICKNESS OF 2" AGGREGATE PLACED ON THE UP GRADE SIDE ON THE SMALL RIPRAP OR EMBEDDED FILTER CLOTH IN THE RIPRAP.

SIZING CALCULATIONS

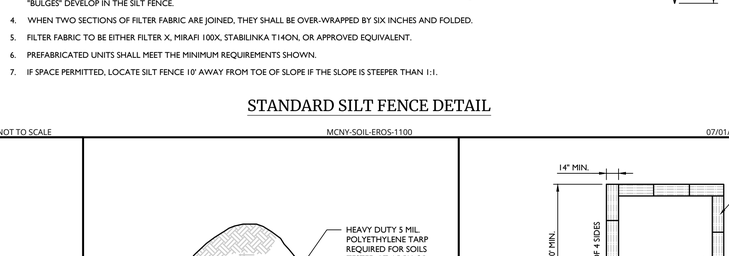
NOTE:

1. 3,600 CUBIC FEET OF STORAGE REQUIRED PER ACRE OF DISTURBANCE.

*THIS IS THE MINIMUM AMOUNT OF SEDIMENT TRAPS, ADDITIONAL MAY BE REQUIRED BASED UPON OTHER ON-SITE CONDITIONS AND CONTRACTOR SCHEDULE AND PHASING ACTIVITIES.

STONE OUTLET SEDIMENT TRAP DETAIL

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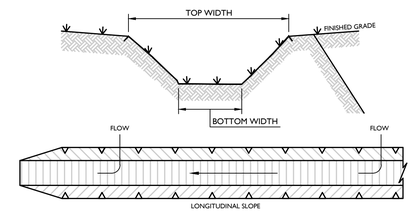


NOTES:

1. GEOTEXTILE TO BE FASTENED SECURELY TO FENCE POST BY USING WIRE TIES OR HOG RINGS. USE 3 FASTENERS PER POST.
2. SPLICING OF INDIVIDUAL ROLLS SHALL NOT OCCUR AT LOW POINTS.
3. ALL SILT FENCE TO BE INSPECTED AND REMEDIAL MAINTENANCE PERFORMED BY THE CONTRACTOR AS REQUIRED. MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.
4. WHEN TWO SECTIONS OF FILTER FABRIC ARE JOINED, THEY SHALL BE OVER-WRAPPED BY SIX INCHES AND FOLDED.
5. FILTER FABRIC TO BE EITHER FILTER X, MIRAFI 100X, STABILINKA T140N, OR APPROVED EQUIVALENT.
6. PREFABRICATED UNITS SHALL MEET THE MINIMUM REQUIREMENTS SHOWN.
7. IF SPACE PERMITTED, LOCATE SILT FENCE 10' AWAY FROM TOE OF SLOPE IF THE SLOPE IS STEEPER THAN 1:1.

STANDARD SILT FENCE DETAIL

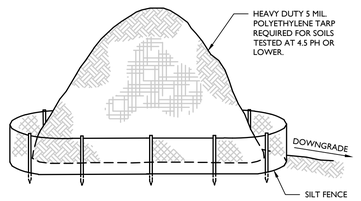
NOT TO SCALE | MCNY-SOIL-EROS-1100 | 07/01/19



PLAN

VEGETATED SWALE					
SWALE	BOTTOM WIDTH	SIDE SLOPE	LONGITUDINAL SLOPE	DEPTH	LENGTH
1R	2.0 FT	50%	2.00%		506'

VEGETATIVE SWALE DETAIL

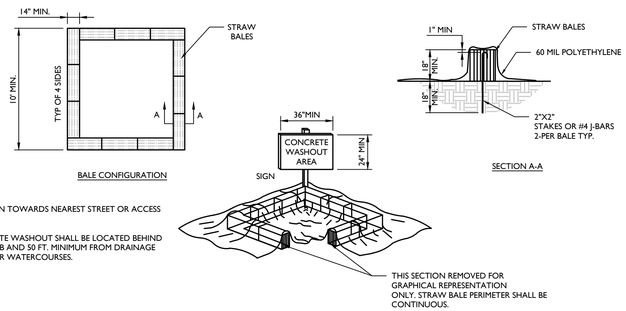


NOTES:

1. ALL STOCKPILES SHALL NOT TO BE LOCATED WITHIN 50 FEET OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY.

TOPSOIL STOCKPILE DETAIL

NOT TO SCALE | MCNY-SOIL-EROS-2500 | 07/01/19



DETAIL NOTES:

1. FACE SIGN TOWARDS NEAREST STREET OR ACCESS POINT.
2. CONCRETE WASHOUT SHALL BE LOCATED BEHIND THE CURB AND 50 FT. MINIMUM FROM DRAINAGE INLETS OR WATERCOURSES.

NOTES:

1. CONCRETE WASHOUTS ARE REQUIRED ON ALL CONSTRUCTION SITES INVOLVING CONCRETE AND STUCCO USE.
2. THE CONTRACTOR SHALL REQUIRE ALL CONCRETE DRIVERS TO UTILIZE THE CONCRETE WASHOUTS ONSITE.
3. WASHOUT FACILITIES SHALL BE LOCATED AT LEAST 50 FEET AWAY FROM STORM SEWER DRAIN INLETS, GUTTERS, OPEN DITCHES, AND WATER COURSES.
4. APPROPRIATE STONE SHOULD COVER PATHS TO CONCRETE WASHOUT.
5. THE NUMBER OF CONCRETE WASHOUTS DEPENDS ON THE EXPECTED DEMAND FOR STORAGE CAPACITY. LARGE SITES WITH EXTENSIVE CONCRETE WORK SHALL BE PLACED AT MULTIPLE LOCATIONS FOR USE BY CONCRETE TRUCK DRIVERS.
6. CONCRETE WASHOUT AREAS SHALL BE IDENTIFIED BY POSTING SIGNS ONSITE.
7. CONCRETE WASHOUTS ARE TO BE INSPECTED DAILY BY THE CONTRACTOR FOR LEAKS OR TEARS IN PLASTIC LINER.
8. REMOVE AND DISPOSE OF ALL MATERIAL WHEN THE WASHOUT HAS BEEN FILLED TO 75% CAPACITY.
9. PRIOR TO ANY RAINFALL, ALL CONCRETE WASHOUTS ARE TO BE CLEANED OUT OR COVERED.
10. ONCE THE MATERIAL HAS BEEN CLEANED OUT OF THE CONCRETE WASHOUT FACILITY, THE FACILITY MUST BE INSPECTED FOR REPAIR, RECONSTRUCTION OR REPLACEMENT. ALL PLASTIC LINING SHALL BE REMOVED AND REPLACED.
11. PRE-FABRICATED OR ONSITE FABRICATED CONCRETE WASHOUTS MAY BE USED.
12. OPTIONS FOR ONSITE CONCRETE WASHOUTS:
    A. DIG A PIT AND LINE WITH 10 MIL PLASTIC SHEETING.
    B. CREATE AN ABOVE-GROUND STRUCTURE FROM STRAW BALES OR SANDBAGS WITH 10 MIL PLASTIC LINING.

CONCRETE WASHOUT DETAIL

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REV	DATE	DRAWN BY	DESCRIPTION



Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

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NEW YORK STATE

Colliers
Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
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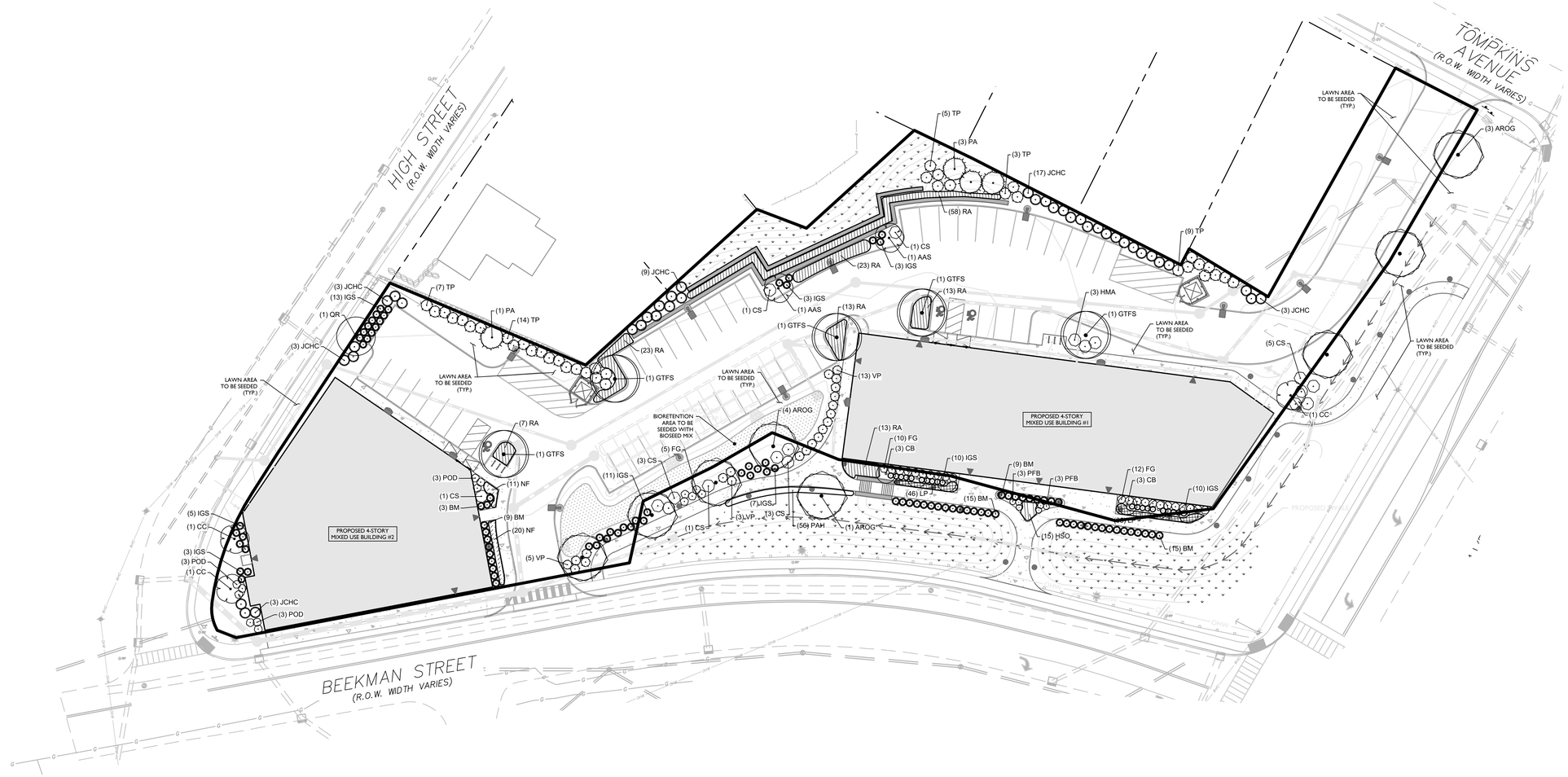
PROJECT NUMBER:	DRAWING NAME:
23010468A	C-SESC

SHEET TITLE:
SOIL EROSION & SEDIMENT CONTROL DETAILS

SHEET NUMBER:
10 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

2023\23010468A\Engineering\Site Plan\C-SESC.dwg|C-10 SOIL EROSION DETAILS By: KYLE SHALLOW



SITE PLANTING SCHEDULE

	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	REMARKS
DECIDUOUS TREES						
AROG	8	Acer rubrum 'October Glory'	October Glory Red Maple	B & B	2"-2-1/2" Cal.	STRAIGHT LEADER/SYM. BRANCHING
GTFS	5	Gleditsia triacanthos 'Skyline'	Skyline Honey Locust	B & B	2"-2-1/2" Cal.	STRAIGHT LEADER/SYM. BRANCHING
QR	1	Quercus rubra	Red Oak	B & B	2"-2-1/2" Cal.	STRAIGHT LEADER/SYM. BRANCHING
EVERGREEN TREES	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	REMARKS
PA	4	Picea abies	Norway Spruce	B & B	6-8` Ht.	DENSE / TYP. SPECIES HABIT
ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	REMARKS
AAS	2	Amelanchier alnifolia	Serviceberry	B & B	6-7` Ht.	MULTISTEM / TYP. SPECIES HABIT
CB	6	Carpinus betulus 'Frans Fontaine'	Frans Fontaine Hornbeam	B & B	1-3/4"-2" Cal.	STRAIGHT LEADER/SYM. BRANCHING
CC	3	Cercis canadens	Eastern Redbud	B & B	6-7` Ht.	STRAIGHT LEADER/SYM. BRANCHING
SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	REMARKS
CS	15	Cornus sericea	Red Twig Dogwood	CONT	24" - 30"	TYPICAL SPECIES HABIT
BM	51	Buxus microphylla var. japonica 'Winter Gem'	Winter Gem Boxwood	CONT	18" - 24"	TYPICAL SPECIES HABIT
FG	27	Fothergilla gardenii	Dwarf Fothergilla	CONT	18" - 24"	TYPICAL SPECIES HABIT
HMA	3	Hydrangea macrophylla 'All Summer Beauty'	All Summer Beauty Hydrangea	CONT	24" - 30"	TYPICAL SPECIES HABIT
IGS	65	Ilex glabra `Shamrock`	Inkberry	CONT	18" - 24"	TYPICAL SPECIES HABIT
JCHC	38	Juniperus chinensis 'Hetzii Columnaris'	Hetzi Column Juniper	CONT	6-8` Ht.	TYPICAL SPECIES HABIT
PFB	6	Potentilla fruticosa	Bush Cinquefoil	CONT	18" - 24"	TYPICAL SPECIES HABIT
POD	9	Physocarpus opulifolius 'Diabolo'	Diabolo Ninebark	CONT	24" - 30"	TYPICAL SPECIES HABIT
RA	150	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	CONT	18" - 24" SPREAD	TYPICAL SPECIES HABIT, 3.5' O.C.
TP	38	Thuja x plicata 'Green Giant'	Green Giant Arborvitae	CONT	5-6' Ht.	TYPICAL SPECIES HABIT
VP	21	Viburnum prunifolium	Blackhaw Viburnum	CONT	24" - 30"	TYPICAL SPECIES HABIT
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	
HSO	15	Hemerocallis x `Stella de Oro`	Stella de Oro Daylily	1 gal	24" o.c.	
LP	111	Liriope platyphylla	Liriope Grass	SP5	18" o.c.	
NF	31	Nepeta x faassenii	Catmint	1 gal.	24" o.c.	
PAH	56	Pennisetum alopecuroides 'Hameln'	Hameln Fountain Grass	1 gal.	24" o.c.	

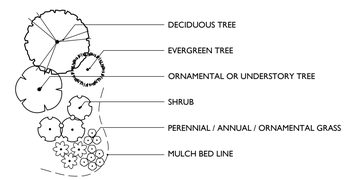
PLAN NOTE

1. THIS PLAN IS TO BE USED FOR LANDSCAPE PURPOSES ONLY. REFER TO DETAIL SHEETS FOR GENERAL NOTES AND LANDSCAPE DETAILS.

LANDSCAPE NOTES

1. LOCATIONS OF ALL PLANT MATERIAL AND PLANTING BED OUTLINES IS APPROXIMATE AND MAY VARY DUE TO THE LOCATIONS OF SITE IMPROVEMENTS AND/OR BUILDING.
2. FINAL LOCATION OF ALL PLANT MATERIAL AND PLANTING BED OUTLINES SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF THE PROJECT LANDSCAPE ARCHITECT.
3. ALL AREAS WITHIN THE PLANTING BED LIMITS SHALL BE MULCHED WITH 3" OF SHREDDED HARDWOOD BARK MULCH.
4. PROPOSED LAWN AREAS AROUND BUILDINGS SHALL BE STABILIZED WITH SEED. SEED MIXTURE #1 TO BE USED ON NORTHERN & WESTERN LAWN AREAS AND SEED MIXTURE #2 TO BE USED ON SOUTHERN & EASTERN LAWN AREAS.
5. ANY PROPOSED IRRIGATION DESIGN AND/OR SYSTEM WILL BE DETERMINED IN THE FIELD BY THE IRRIGATION CONTRACTOR.
6. ALL PLANT MATERIAL SHALL CONFORM TO GUIDELINES AS SET FORTH IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARD FOR NURSERY STOCK.
7. NO SUBSTITUTIONS OF PLANT MATERIALS ARE TO BE MADE WITHOUT THE WRITTEN CONSENT OF THE OWNER AND PROJECT LANDSCAPE ARCHITECT.
8. ALL VEGETATION SHOWN ON THIS PLAN WILL BE MAINTAINED IN A HEALTHY AND VIGOROUS GROWING CONDITION THROUGHOUT THE DURATION OF THE PROPOSED USE.

LANDSCAPE LEGEND



NOTE:
1. LANDSCAPE SYMBOLS ON THE PLAN VARY AND MAY DEVIATE FROM THE LANDSCAPE LEGEND SYMBOLS SHOWN ABOVE.

LAWN SEED MIX

NATIVE MEADOW MIX

BIORETENTION SEED MIX

30 0 30 60

SCALE : 1" = 30'
SELECT LINEAR UNIT OF MEASURE

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20232\20210468A\Engineering\Site Plans\C-LAND.dwg\C-111-LANDSCAPE by KYLE SHALLOW

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REGISTERED LANDSCAPE ARCHITECT
JUSTIN E. DATES
001964
STATE OF NEW YORK

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
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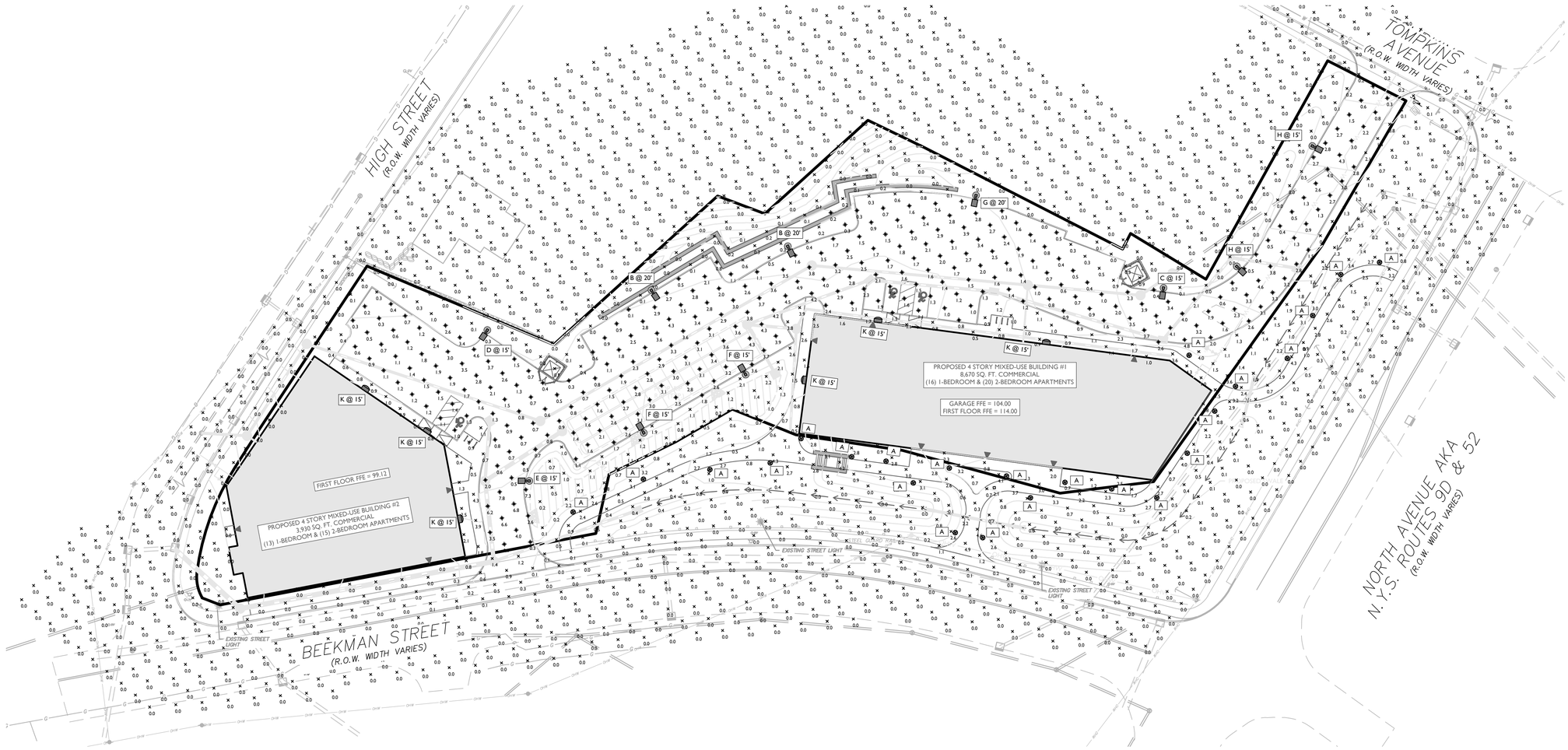
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23010468A	C-LAND

SHEET TITLE:
LANDSCAPE PLAN

SHEET NUMBER:
11 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION



LUMINAIRE SCHEDULE

KEY	QTY.	DESCRIPTION	ARRANGEMENT	MTG. HT.	LUMENS/LAMP	LLF	CATALOG #
A	24	HYDREL IMPACT RESISTANT ROUND BOLLARD FLAT TOP	SINGLE (BOLLARD)	3.5'	1,519	0.9	3120C-H42-8COB-30K-MVOLT-FT-BL-PL
B	2	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	20'	12,352	0.9	DSX0 LED-P6-30K-80CRI-BLC4-MVOLT-SPA-DBLXD-PER5
C	1	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	15'	7,768	0.9	DSX0 LED-P4-30K-80CRI-BLC3-MVOLT-SPA-DBLXD-PER5
D	1	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	15'	8,023	0.9	DSX0 LED-P4-30K-80CRI-BLC4-MVOLT-SPA-DBLXD-PER5
E	1	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	15'	7,838	0.9	DSX0 LED-P4-30K-80CRI-RCCO-MVOLT-SPA-DBLXD-PER5
F	2	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	15'	5,862	0.9	DSX0 LED-P2-30K-80CRI-T2M-MVOLT-SPA-DBLXD-PER5
G	1	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	20'	11,367	0.9	DSX0 LED-P6-30K-80CRI-BLC4-MVOLT-SPA-EGSR-DBLXD-PER5
H	2	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	15'	6,398	0.9	DSX0 LED-P3-30K-80CRI-BLC3-MVOLT-SPA-DBLXD-PER5
K	6	LITHONIA LIGHTING D-SERIES SIZE 1 LED WALL LUMINAIRE	SINGLE (WALL PACK)	15'	1,415	0.9	DSXW1 LED-10C-350-30K-TS2-MVOLT-DBLXD

CALCULATION SUMMARY

DESCRIPTION	CALC. TYPE	UNITS	AVG.	MAX.	MIN.	AVG. / MIN.
PARKING, DRIVE & SIDEWALK	ILLUMINANCE	FC	2.1	7.8	0.3	7.0:1

LIGHTING NOTES:

1. THIS PLAN IS TO BE USED FOR LIGHTING PURPOSES ONLY.
2. POLES AND FIXTURES AS SUPPLIED BY:
   FIXTURES - LITHONIA LIGHTING
   POLE - HOLOPHANE
   BOLLARD FIXTURES - HYDREL
3. LAMPS ARE TO BE LEDs. A LIGHT LOSS FACTOR (LLF) WAS USED AS SHOWN IN THE LUMINARIES SCHEDULE.
4. FIXTURES AND POLES ARE TO BE BLACK.
5. POLE MOUNTED FIXTURES SHALL BE PLACED A MINIMUM OF TWO (2) FEET BEHIND CURBS, EDGE OF PAVEMENT OR RETAINING WALLS IN CAR PARKING AREAS.
6. PROPOSED LIGHT FIXTURE LOCATIONS ARE CRITICAL TO PROVIDE THE LIGHTING LEVELS DEPICTED ON THIS PLAN. THE LIGHTING CONTRACTOR SHALL FIELD VERIFY FIXTURE LOCATIONS PRIOR TO INSTALLATION. IF ADJUSTMENT TO ANY LIGHT FIXTURE LOCATION IS REQUIRED DUE TO FINAL CONSTRUCTION OF UTILITIES AND SITE IMPROVEMENTS, THE LIGHTING CONTRACTOR SHALL NOTIFY THE PROJECT LANDSCAPE ARCHITECT OF ANY DISCREPANCIES PRIOR TO INSTALLATION.
7. LIGHTING SHOWN ON PLAN DEPICTS AVERAGE MAINTAINED FOOTCANDLE LEVELS AT GRADE.
8. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF LIGHT FIXTURES FOR REVIEW AND APPROVAL BY THE OWNER OR PROJECT LANDSCAPE ARCHITECT.
9. ELECTRICAL PLANS FOR WIRING LAYOUT BY OTHERS.
10. POLE BASE INSTALLATION SHALL INCLUDE A SUPPLEMENTARY GROUND ROD AND WIRE LEAD TO BASE FOR POWER CONNECTION. DETAILS PER PROJECT ELECTRICAL ENGINEER.
11. ALL LIGHTING FIXTURES WILL BE DARK SKY COMPLIANT.

LIGHTING LEGEND:

- SINGLE FIXTURE POLE LIGHT
- WALLPACK
- BOLLARD LIGHT
- 0.0 LIGHT LEVEL AT GRADE (IN FOOTCANDLES)

30 0 30 60

SCALE : 1" = 30'
SELECT LINEAR UNIT OF MEASURE

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REV	DATE	DRAWN BY	DESCRIPTION

REGISTERED LANDSCAPE ARCHITECT
JUSTIN E. DATES
001964
STATE OF NEW YORK

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers
Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	XXXXXX	XXXXXX

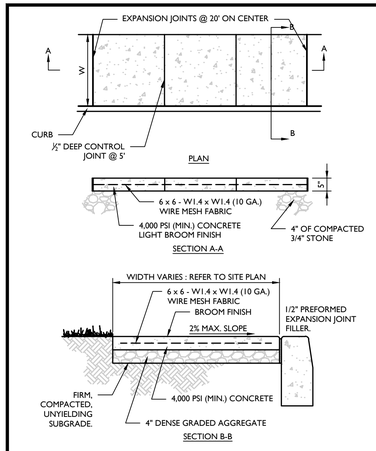
PROJECT NUMBER: 23010468A
DRAWING NAME: C-LGHT

SHEET TITLE: LIGHTING PLAN

SHEET NUMBER: 12 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

2023\23010468A\Engineering\Site Plans\C-LGHT.dwg\C-12 LIGHTING By: KYLE SHALLOW

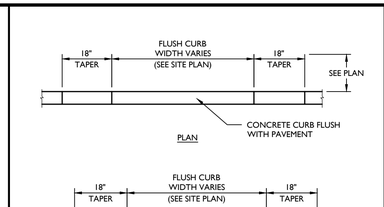


NOTES:

1. A PREFORMED, BITUMINOUS EXPANSION JOINT 1/2" THICK, 4" WIDE AND EXTENDING THE FULL WIDTH OF THE SIDEWALK (UNBROKEN) SHALL BE INSTALLED.
2. ½" DEEP CONTROL JOINTS INSTALLED AT AN INTERVAL OF EVERY 5'.
3. JOINT FILLER SHALL CONFORM TO AASHTO M-33. SURFACE OF CONCRETE SHALL BE BROOM FINISH. ROUND EDGES USING AN EDGING TOOL WITH A 1/4" RADIUS.
4. CONCRETE SIDEWALK SHALL BE CONSTRUCTED PER THE LATEST ADA REQUIREMENTS.

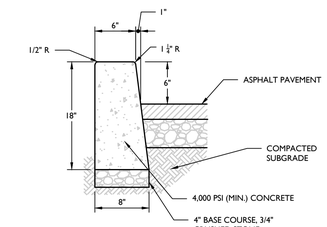
REINFORCED CONCRETE SIDEWALK (NEXT TO CURB) DETAIL

NOT TO SCALE | MCNY-SITE-PVMT-1800 | 07/01/19



CONCRETE FLUSH CURB DETAIL

NOT TO SCALE | MCNY-SITE-CURB-1300 | 07/01/19

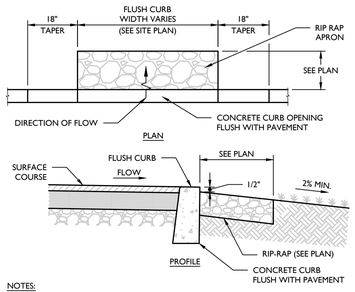


NOTES:

1. PREFORMED BITUMINOUS FIBER EXPANSION JOINTS, 1/2" THICK AT 20' MAX. INTERVALS ALONG THE CURB. PROVIDE CONTROL JOINTS @ 10 FEET MAX. BETWEEN EXPANSION JOINTS.

CONCRETE CURB (ASPHALT PAVEMENT) DETAIL

NOT TO SCALE | MCNY-SITE-CURB-1000 | 07/01/19

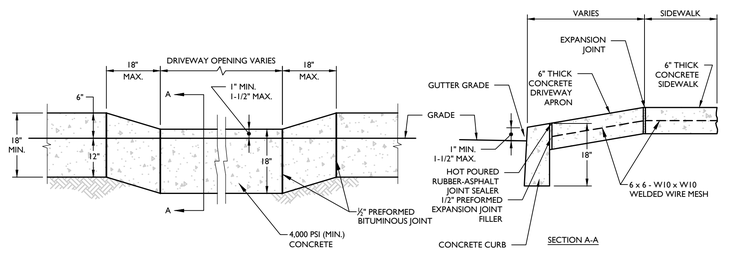


NOTES:

1. FLUSH CURB FOR OVERLAND FLOW TO BE USED AT DESIGNATED LOCATIONS ONLY AS SHOWN ON SITE PLANS.
2. CONTRACTOR SHALL ENSURE THAT THERE IS POSITIVE DRAINAGE FROM THE PAVEMENT TO THE GRASSED AREA.

FLUSH CURB FOR DRAINAGE DETAIL

NOT TO SCALE | MCNY-SITE-CURB-1400 | 07/01/19

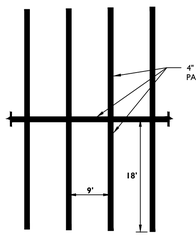


NOTES:

1. DEPRESSED VERTICAL CURB AT DRIVEWAY AND RAMP AREAS SHALL BE FULL DEPTH OF 18".

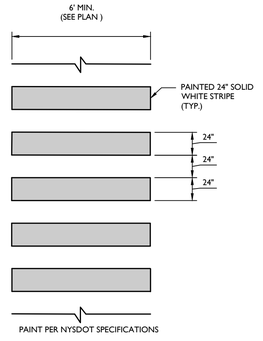
DEPRESSED CONCRETE CURB AT DRIVEWAY DETAIL

NOT TO SCALE | MCNY-SITE-CURB-1700 | 07/01/19



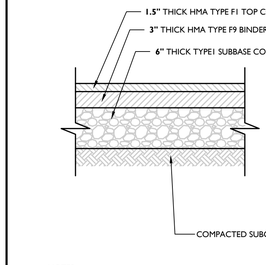
TYPICAL PARKING STALL STRIPING DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-1000 | 07/01/19



PEDESTRIAN CROSSWALK DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-1401 | 07/01/19

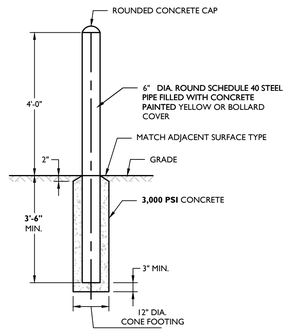


NOTES:

1. PAVEMENT TYPES TO BE IN ACCORDANCE WITH CURRENT NYSDOT STANDARDS AND SPECIFICATIONS.

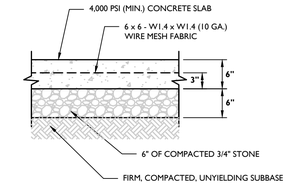
STANDARD ASPHALT PAVEMENT DETAIL

NOT TO SCALE | MCNY-SITE-PVMT-1000 | 07/01/19



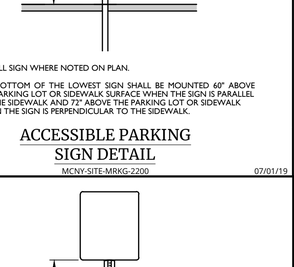
BOLLARD DETAIL

NOT TO SCALE | MCCM-SITE-FNCE-2300 | 07/01/19



TRASH ENCLOSURE CONCRETE PAD DETAIL

NOT TO SCALE | MCNY-SITE-PVMT-2100 | 07/01/19

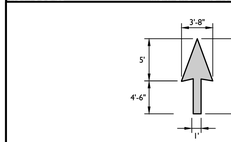


NOTES:

1. INSTALL SIGN WHERE NOTED ON PLAN.
2. THE BOTTOM OF THE LOWEST SIGN SHALL BE MOUNTED 60" ABOVE THE PARKING LOT OR SIDEWALK SURFACE WHEN THE SIGN IS PARALLEL TO THE SIDEWALK AND 72" ABOVE THE PARKING LOT OR SIDEWALK WHEN THE SIGN IS PERPENDICULAR TO THE SIDEWALK.

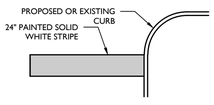
ACCESSIBLE PARKING SIGN DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-2200 | 07/01/19



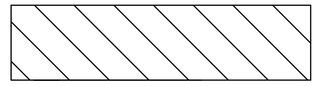
STRAIGHT PAVEMENT ARROW DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-1200 | 07/01/19



TYPICAL STOP BAR DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-1100 | 07/01/19

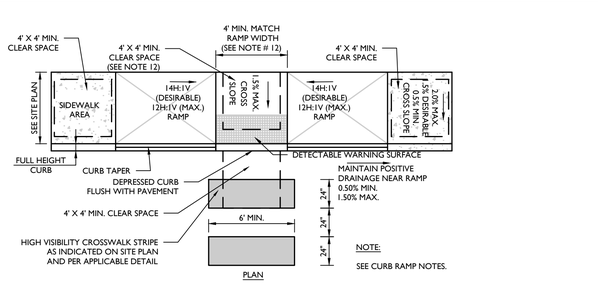


NOTES:

1. 4.0' ON CENTER
2. 4" YELLOW AT 45 DEGREES
3. WIDTH TO BE CONFIRMED WITH LOCAL JURISDICTIONAL ENTITY.

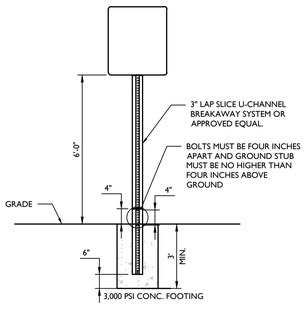
FIRE ZONE / LOADING AREA STRIPING DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-2100 | 07/01/19



CURB RAMP TYPE 7 DETAIL

NOT TO SCALE | MCNY-SITE-HADA-1600 | 07/01/19

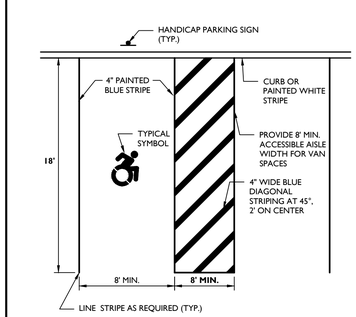


NOTE:

1. ALL SIGNS SHALL CONFORM TO THE CURRENT MANUAL ON "UNIFORM TRAFFIC CONTROL DEVICES" FOR STREETS AND HIGHWAYS AND CURRENT MUNICIPAL SPECIFICATIONS FOR COLOR, DESIGN AND EXACT WORDING.

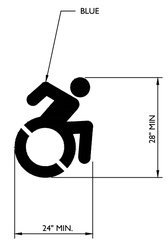
BREAKAWAY SIGN POST DETAIL

NOT TO SCALE | MCCM-SITE-SIGN-6102 | 07/01/19



ACCESSIBLE PARKING LINE STRIPE STALL DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-1801 | 07/01/19



STROKE WIDTH: MINIMUM/STANDARD = 3"

ACCESSIBLE SYMBOL DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-2000 | 07/01/19



30" x 30"

COLORS:
LEGEND = WHITE (RETROREFLECTIVE)
BACKGROUND = RED (RETROREFLECTIVE)

R1-1 SIGN DETAIL

NOT TO SCALE | MCCM-SIGN-REGU-R1-1 | 12/01/20



24" x 30"

COLORS:
LEGEND = RED (RETROREFLECTIVE)
BACKGROUND = WHITE (RETROREFLECTIVE)

R8-3a SIGN DETAIL

NOT TO SCALE | MCCM-SIGN-REGU-R8-3A | 01/01/23

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Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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FOR

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TAX LOTS:
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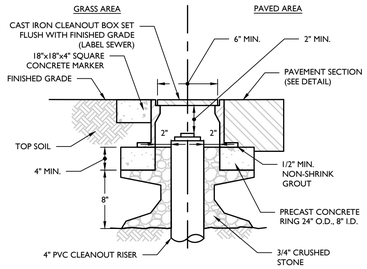
PROJECT NUMBER: 23010468A
DRAWING NAME: C-DTLS

SHEET TITLE: CONSTRUCTION DETAILS

SHEET NUMBER: 13 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

\\Archdata\...\23384C.DTLS.dwg|C-13 DETAILS By: KYLE.SHALLOW

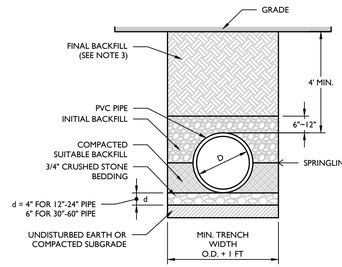


NOTES

1. ALL PVC CLEANOUTS TO HAVE CAST IRON FRAME AND COVER PROTECTION BOX. DESIGN FOR H20 LOADING.

CLEANOUT PROTECTION BOX DETAIL

NOT TO SCALE | MCNY-UTIL-SSWR-1600 | 07/01/19

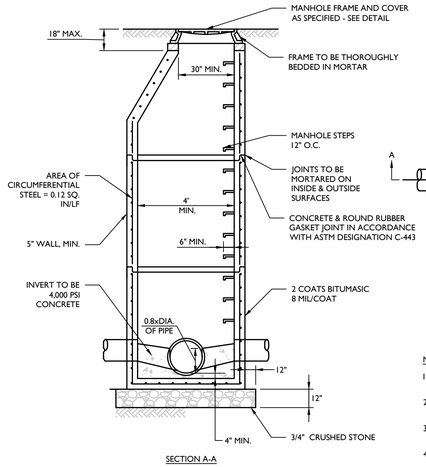


NOTES:

1. ALL PVC GRAVITY PIPE SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321.
2. GRAVITY SANITARY PIPE SHALL BE PVC SDR 35 PER ASTM D3034 OR AS REQUIRED BY THE GOVERNING AUTHORITY.
3. INITIAL & FINAL BACKFILL MATERIAL SHALL BE SITE SOILS FREE OF LARGE STONES. CLEAN FILL OR ITEM 4.

PVC SANITARY PIPE BEDDING (GRAVITY) DETAIL

NOT TO SCALE | MCNY-UTIL-SSWR-2803 | 07/01/19

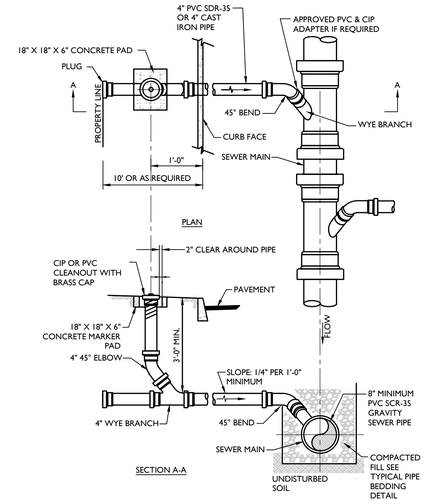


NOTES:

1. PRECAST MANHOLE SECTIONS TO BE IN ACCORDANCE WITH ASTM C-478, 4,000 PSI CONCRETE.
2. FLEXIBLE RUBBER BOOT SHALL BE USED FOR CONNECTION OF PVC PIPE TO MANHOLE. LINK SEAL OR APPROVED EQUAL.
3. PRECAST CHANNELS SHALL NOT BE USED FOR BENDS GREATER THAN 45°. POURED CONCRETE LONG RADIUS CHANNELS SHALL BE CONSTRUCTED.
4. MANHOLE TO BE CAPABLE OF H20 LOADING.

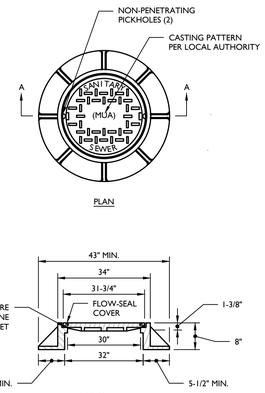
SANITARY PRECAST MANHOLE DETAIL

NOT TO SCALE | MCNY-UTIL-SSWR-1000 | 07/01/19



SANITARY SEWER LATERAL & CLEANOUT DETAIL

NOT TO SCALE | MCNY-UTIL-SSWR-1601 | 07/01/19

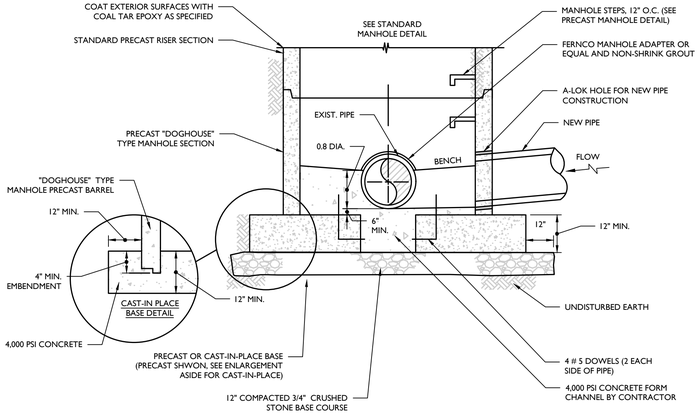


NOTES:

1. MANHOLE FRAME AND COVER SHALL BE CAMPBELL FOUNDRY PATTERN # **1012B** WITH FLOW-SEAL COVER OR APPROVED EQUAL OR AS OTHERWISE REQUIRED BY JURISDICTIONAL AUTHORITY.
2. MANHOLE FRAME AND COVER TO BE HEAVY DUTY, CONFORMING TO ASTM SPECIFICATION A-48 CLASS 30-B WITH SHOP COAT OF ASPHALTIC PITCH.
3. IN EASEMENTS AND REMOTE AREAS, COVER LOCKING DEVICES OF BRONZE AND KEY SHALL BE PROVIDED.
4. WATERTIGHT MANHOLE FRAME AND COVER SHALL BE PATTERN # **6548** AS MANUFACTURED BY CAMPBELL FOUNDRY COMPANY OR APPROVED EQUAL.

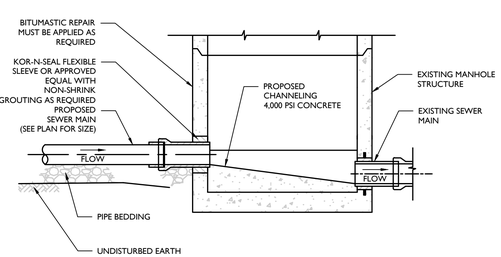
SANITARY MANHOLE FRAME AND COVER DETAIL

NOT TO SCALE | MCNY-UTIL-SSWR-1001 | 07/01/19



DOGHOUSE MANHOLE DETAIL

NOT TO SCALE | MCNY-UTIL-SSWR-1100 | 07/01/19



NOTES:

1. CONSTRUCTION OF THE NEW SEWER MAIN SHALL NOT IMPEDE THE OPERATION OF THE EXISTING SEWER.
2. WHERE NEW PIPE IS TO BE CONNECTED INTO AN EXISTING MANHOLE, THE CONTRACTOR SHALL CORE DRILL ALL HOLES INTO MANHOLE AND SHALL PERFORM ALL CUTTING AND PATCHING NECESSARY FOR CHANNEL AND BENCH RECONSTRUCTION TO CHANNEL FLOW INTO EXISTING SEWER.
3. PIPE SHALL BE SEALED USING KOR-N-SEAL MANHOLE ADAPTERS OR APPROVED EQUAL, AND NON-SHRINK GROUT.
4. EXISTING BENCH SHALL BE CHIPPED AND CUT AWAY TO ALLOW FOR NEW CHANNEL TO BE CONSTRUCTED AND TO PROVIDE GOOD, SOUND SURFACE FOR BONDING WITH NEW CONCRETE CHANNEL AND BENCH. REMOVE ALL LOOSE MATERIALS AND CLEAN INSIDE OF THE STRUCTURE.
5. THE CONCRETE USED TO CONSTRUCT BENCHES AND CHANNELS SHALL BE 4,000 PSI CONCRETE APPLY EPOXY BONDING AGENT PRIOR TO POURING CONCRETE.
6. ANY DAMAGE TO THE EXISTING MANHOLE CAUSED BY THE CONSTRUCTION OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR.

CONNECTION TO EXISTING MANHOLE DETAIL

NOT TO SCALE | MCNY-UTIL-SSWR-2000 | 07/01/19

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23010468A	C-DTLS

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SHEET NUMBER:
14 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

WATER NOTES:

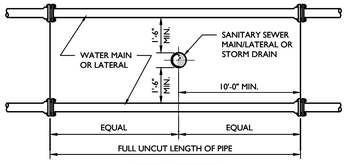
1. ALL METHODS, MATERIALS, FITTINGS, DEVICES, DIMENSIONAL REQUIREMENTS AND PROCEDURES NECESSARY TO COMPLETE THE WORK SHOWN HEREON SHALL MEET THE APPROPRIATE CURRENT AWWA SPECIFICATIONS IN EFFECT AS WELL AS ALL REQUIREMENTS DEEMED APPLICABLE BY THE MUNICIPALITY OR ANY OTHER GOVERNMENTAL BODY HAVING JURISDICTION OVER SAID WORK.
2. ALL WATER MAIN PIPE SHALL BE HIGH DENSITY POLYETHYLENE, 10"OR 4" HDPE DR-11.
3. ALL PIPE FITTINGS SHALL BE IN ACCORDANCE WITH THE LATEST REVISION OF THE AWWA SPECIFICATION C153/A21.53-00.
4. ALL GATE VALVES SHALL BE "MUELLER" OR APPROVED EQUAL, RESILIANT-SEATED GATE VALVES WITH MECHANICAL JOINT CONNECTIONS. OPENING SHALL BE LEFT (CCW) AND OPERATION SHALL BE BY 2" SQUARE WRENCH NUT. MINIMUM WORKING PRESSURE SHALL BE 250 PSI. GATE VALVES ARE TO BE IN ACCORDANCE WITH LATEST REVISION OF AWWA SPECIFICATION C509.
5. ALL VALVE BOXES SHALL BE EXTENSION TYPE BY MUELLER SET ON BRICKS AND POSITIONED PERPENDICULAR TO THE PIPE AND ON COMPACTED BACKFILL.
6. ALL CHANGES IN PIPE LINE DIRECTION, BOTH HORIZONTAL AND VERTICAL SHALL BE TIE-RODDED AND THRUST BLOCKED WITH CONCRETE AGAINST UNDISTURBED EARTH AS DIRECTED BY THE ENGINEER.
7. FLUSH OUT ALL WATER MAINS AND APPURTENANCES AS DIRECTED BY THE MUNICIPALITY UNTIL THE WATER RUNS CLEAN AND FREE OF RUST AND DIRT. PRESSURIZE ALL LINES AND APPURTENANCES FOR FORTY-EIGHT (48) HOURS, OR AS DIRECTED BY THE MUNICIPALITY, TO REVEAL ANY LEAKS OR BROKEN PIPE. THIS SHALL ALL BE DONE EITHER AS A TOTAL PROJECT OR BETWEEN VALVED SECTIONS AS DIRECTED BY THE TOWN. IF PRESSURE TESTING REVEALS ANY LEAKS OR DIFFICULTIES THE CONTRACTOR SHALL PROMPTLY UNCOVER THE LEAK OR BROKEN PIPE AND IMMEDIATELY REPAIR AND RETEST SAME. THIS SHALL BE REPEATED AS MANY TIMES AS MAY BE REQUIRED TO DEMONSTRATE A TIGHT LINE TO THE SATISFACTION OF THE TOWN. THE NEW WATER MAIN AND APPURTENANANCES SHALL BE PRESSURE TESTED IN ACCORDANCE WITH THE LATEST REVISION OF AWWA C-600. RESULTS OF TESTS ARE TO BE SUBMITTED AND ACCEPTED BY THE MUNICIPALITY.
8. THE MUNICIPAL ENGINEER MUST BE NOTIFIED FORTY-EIGHT (48) HOURS PRIOR TO PRESSURE TESTING.
9. ALL WATER LINES AND APPURTENANCES SHALL BE DISINFECTED TO THE SATISFACTION OF THE MUNICIPALITY, AND IN ACCORDANCE WITH THE STANDARDS OF THE OCDOH. THIS SHALL ALSO BE DONE IN ACCORDANCE WITH THE LATEST REVISION OF AWWA C651. A MINIMUM OF TWO (2) BACTERIAL TESTS TAKEN TWENTY-FOUR (24) HOURS APART ARE REQUIRED. RESULTS OF TESTS ARE TO BE SUBMITTED AND ACCEPTED BY THE MUNICIPALITY.
   AS PER AWWA C651, LATEST REVISION, WATER MAIN DISINFECTION PROCEDURE SHALL, GENERALLY, BE AS FOLLOWS, EXCLUDING THE TABLET METHOD:
   A. INSPECTING MATERIALS TO BE USED TO ENSURE THEIR INTEGRITY.
   B. PREVENTING CONTAMINATING MATERIALS FROM ENTERING THE WATER MAIN DURING STORAGE, CONSTRUCTION, OR REPAIR AND NOTING POTENTIAL CONTAMINATION AT THE CONSTRUCTION SITE.
   C. REMOVING, BY FLUSHING OR OTHER MEANS, THOSE MATERIALS THAT MAY HAVE ENTERED THE WATER MAIN.
   D. CHLORINATING ANY RESIDUAL CONTAMINATION THAT MAY REMAIN, AND FLUSHING THE CHLORINATED WATER FROM THE MAIN.
   E. PROTECTING THE EXISTING DISTRIBUTION SYSTEM FROM BACKFLOW CAUSED BY HYDROSTATIC PRESSURE TEST AND DISINFECTION PROCEDURES.
   F. DOCUMENTING THAT AN ADEQUATE LEVEL OF CHLORINE CONTACTED EACH PIPE TO PROVIDE DISINFECTION.
   G. DETERMINING THE BACTERIOLOGICAL QUALITY BY LABORATORY TEST AFTER DISINFECTION.
   H. FINAL CONNECTION OF THE APPROVED NEW WATER SERVICE TO THE ACTIVE DISTRIBUTION SYSTEM.

   THE CONTINUOUS-FEED METHOD SHALL BE IMPLEMENTED FOR CHLORINATION, AS DESCRIBED IN AWWA C651, LATEST REVISION. AFTER CHLORINATION, THE CONTRACTOR SHALL FLUSH THE MAINS AS PER FINAL FLUSHING REQUIREMENTS OF AWWA C651, LATEST REVISION. WHEN CUTTING INTO OR REPAIRING AN EXISTING MAIN, DISINFECTION PROCEDURES SHALL BE OBSERVED AS DETAILED IN DISINFECTION PROCEDURES WHEN CUTTING INTO OR REPAIRING EXISTING MAINS OF AWWA C651, LATEST REVISION.

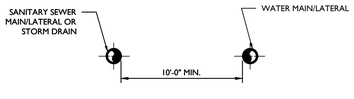
   VERIFICATION SHALL BE ACCOMPLISHED VIA BACTERIOLOGICAL TESTS. AFTER FINAL FLUSHING AND BEFORE THE NEW WATER MAIN IS CONNECTED TO THE DISTRIBUTION SYSTEM, TWO CONSECUTIVE SETS OF ACCEPTABLE SAMPLES, TAKEN AT LEAST 24 HR APART, SHALL BE COLLECTED FROM THE NEW MAIN. AT LEAST ONE SET OF SAMPLES SHALL BE COLLECTED FROM EVERY 1,200 FT OF THE NEW WATER MAIN, PLUS ONE SET FROM THE END OF THE LINE AND AT LEAST ONE SET FROM EACH BRANCH. SAMPLES SHALL BE TESTED FOR BACTERIOLOGICAL (CHEMICAL AND PHYSICAL) QUALITY IN ACCORDANCE WITH STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER, AND SHALL SHOW THE ABSENCE OF COLIFORM ORGANISMS AND THE PRESENCE OF A CHLORINE RESIDUAL. SAMPLES FOR BACTERIOLOGICAL ANALYSIS SHALL BE COLLECTED IN STERILE BOTTLES TREATED WITH SODIUM THIOSULFATE, AS REQUIRED BY STANDARD METHODS FOR THE EXAMINATION OF WATER AND WASTEWATER. NO HOSE OR FIRE HYDRANT SHALL BE USED IN THE COLLECTION OF SAMPLES. THERE SHOULD BE NO WATER IN THE TRENCH UP TO THE CONNECTION FOR SAMPLING. THE SAMPLING PIPE MUST BE DEDICATED AND CLEAN AND DISINFECTED AND FLUSHED PRIOR TO SAMPLING. A CORPORATION COCK MAY BE INSTALLED IN THE MAIN WITH A COPPER-TUBE GOOSENECK ASSEMBLY. AFTER SAMPLES HAVE BEEN COLLECTED, THE GOOSENECK ASSEMBLY MAY BE REMOVED AND RETAINED FOR FUTURE USE. IF SAMPLES RESULTS FROM THE LAB INDICATE A MEASURED HPC GREATER THAN 500 COLONY-FORMING UNITS (CFU) PER ML, FLUSHING SHOULD BE RESUMED AND ANOTHER COLIFORM AND HPC SET OF SAMPLES SHOULD BE TAKEN UNTIL NO COLIFORMS ARE PRESENT AND THE HPC IS LESS THAN 500 CFU/ML. THE RECORD OF COMPLIANCE SHALL BE THE BACTERIOLOGICAL TEST RESULTS CERTIFYING THAT THE WATER SAMPLED FROM THE NEW WATER MAIN IS FREE OF COLIFORM BACTERIA CONTAMINATION AND IS EQUAL TO OR BETTER THAN THE BACTERIOLOGIC WATER QUALITY IN THE DISTRIBUTION SYSTEM.

   ALL OTHER REQUIREMENTS OF AWWA C651, LATEST REVISION, SHALL BE OBSERVED.

10. WATER SERVICE SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED SEWER MAIN OR SERVICE.
11. ALL WATER MAINS SHOULD BE SEPARATED FROM SANITARY SEWER LINES BY A MINIMUM HORIZONTAL DISTANCE OF 10 FEET. IF SUCH HORIZONTAL SEPARATION IS NOT POSSIBLE, THE WATER AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (STEP TRENCHES ARE PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN ENCASED IN CONCRETE OR WITH SUCH SEPARATION EXPRESSLY APPROVED BY THE ORANGE COUNTY DEPARTMENT OF HEALTH.
12. AT THE CROSSINGS OF SEWER LINES AND WATER MAINS, THE TOP OF THE SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE WATER LINE SHALL BE ENCASED IN CONCRETE.
13. WATER TIGHT PLUGS ARE TO BE INSTALLED IN THE ENDS OF PIPES WHEN WORK IS NOT IN PROGRESS.
14. LEAKAGE AND HYDROSTATIC PRESSURE TESTING SHALL BE PERFORMED AT 1.5 TIMES THE WORKING PRESSURE.
15. THE MAXIMUM DEFLECTION ALLOWED ALLOWED AT PIPE JOINTS SHALL BE LIMITED TO 80% OF THAT ALLOWED BY AWWA OR IN ACCORDANCE WITH THE MUNICIPALITY. FOR AWWA ALLOWABLE JOINT DEFLECTIONS SEE LATEST REVISION OF AWWA SPECIFICATION C600.
16. CONSTRUCTION MUST CONFORM TO ALL ORDINANCES.
17. CONTRACTOR SHALL VERIFY THE LOCATION AND ELEVATION OF EXISTING WATER AND OTHER UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
18. CONTRACTOR TO CALL UNDERGROUND MARK-OUT PRIOR TO COMMENCEMENT OF CONSTRUCTION AT 1-800-962-7962 FOR COMPLETE UTILITIES MARK-OUT.
19. CONTRACTOR TO CONTACT MUNICIPAL WATER DEPARTMENT AT LEAST 2 DAYS PRIOR TO CONSTRUCTION.
20. ALL IMPROVEMENTS SHALL BE INSPECTED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW YORK AND CERTIFICATION SHALL BE PROVIDED TO THE MUNICIPALITY THAT THE SUBJECT IMPROVEMENTS HAVE BEEN CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS.
21. CONTRACTOR TO NOTIFY ENGINEER OF ANY DEVIATION FROM THE HORIZONTAL OR VERTICAL ALIGNMENTS WITH REGARDS TO EXISTING UTILITIES.
22. ANY BACKFLOW PREVENTION DEVICE(S) DETERMINED TO BE REQUIRED BY THE WATER SUPPLIER WILL BE DESIGNED BY OTHERS IN ACCORDANCE WITH OCDOH REQUIREMENTS AND THAT APPLICATION FOR ANY SUCH BACKFLOW PREVENTION DEVICE SHALL BE SUBMITTED TO THE OCDOH FOR REVIEW AND APPROVAL UNDER SEPARATE COVER.
23. A CERTIFIED AS-BUILT MAP OF THE WATER SYSTEM IMPROVEMENTS SHALL BE PROVIDED TO THE MUNICIPALITY'S WATER DEPARTMENT BY A LICENSED DESIGN PROFESSIONAL.



VERTICAL SEPARATION



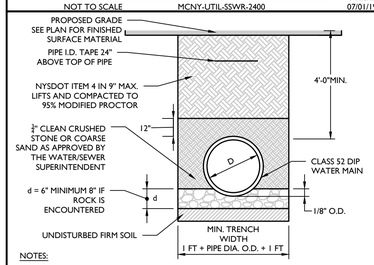
HORIZONTAL SEPARATION

NOTE :
1. NO DEVIATION IN THE SEPARATION REQUIREMENTS WILL BE PERMITTED WITHOUT THE EXPRESS APPROVAL OF THE ENGINEER.

SANITARY/STORM SEWER-WATER MAIN SEPARATION DETAIL

MOD: 04/23/21

NOT TO SCALE MCNY-UTIL-SSWR-2400 07/01/19



NOTES:
1. ALL PIPE SYSTEMS AND BACKFILL SHALL BE INSTALLED IN ACCORDANCE WITH ANSI/AWWA C600.
2. WATER MAIN PIPE SHALL BE CEMENT LINED DUCTILE IRON PIPE (DIP) PRESSURE CLASS 150, THICKNESS CLASS 52 WITH ASPHALTIC EPOXY TYPE COATING & TYTON JOINTS.
3. MAXIMUM ALLOWABLE DEFLECTION AT PIPE JOINTS SHALL BE LIMITED TO 80% OF THE VALUES PUBLISHED IN AWWA C600, LATEST REVISION.
4. IF ROCK IS ENCOUNTERED, THE EXCAVATION SHALL BE CARRIED 8" BELOW THE BOTTOM OF THE PIPE.

DIP WATER PIPE BEDDING DETAIL

MOD: 07/28/21

NOT TO SCALE MCNY-UTIL-WATR-1900 07/01/19

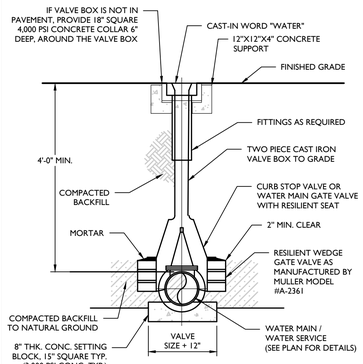
NUMBER AND SIZE OF RODS REQUIRED AND PIPE LENGTH IN FEET TO BE RESTRAINED									
PIPE SIZE IN INCHES	90° TEE OR DEAD END PLUG			45° BEND			22½° BEND		
	No.	SIZE	L*	No.	SIZE	L*	No.	SIZE	L*
4	2	¾"	28'	2	¾"	6'	2	¾"	3'
6	2	¾"	40'	2	¾"	8'	2	¾"	4'
8	4 or 2	¾" or ⅞"	52'	2	¾"	10'	2	¾"	5'
10	4	⅞"	63'	2	¾"	12'	2	¾"	6'
12	4	⅞"	74'	2	¾"	14'	2	¾"	7'
14	4	1"	86'	2	¾"	16'	2	¾"	8'
16	4	1"	96'	2	¾"	18'	2	¾"	9'

L* = LENGTH OF PIPE TO BE RESTRAINED IS FOR EACH SIDE OF BEND

NOTES:
1. USE OF MECHANICAL JOINT RETAINER GLANDS SHALL PROVIDE A THRUST RESTRAINT SYSTEM EQUIVALENT TO THAT LISTED IN THE TABLE FOR CLAMPS AND RODS.
2. LENGTHS ARE BASED ON THE FOLLOWING CRITERIA: 150 PSI MAXIMUM PRESSURE AND 4'-6" OF COVER. TABLE IS FOR USE WITH HDPE OR PVC PIPE ONLY. IF TEST CONDITIONS ARE MORE SEVERE OR LARGER PIPES ARE PROPOSED, THEN SPECIAL COMPUTATIONS MUST BE PROVIDED BY LICENSED PROFESSIONAL ENGINEER.

JOINT RESTRAINT SCHEDULE DETAIL

NOT TO SCALE HDPE .PVP JOINT RESTRAINT 03/23/23

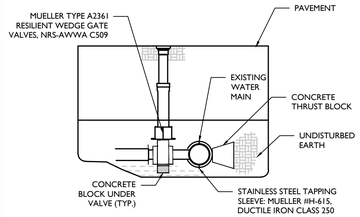


NOTES:
1. ALL VALVES TO INCLUDE MEGA-LUG RETAINER GLANDS AND BE RODDED BACK TO THE ADJACENT TEE IN THE WATER MAIN. INLINE VALVES NEED NOT BE RODDED. CONTRACTOR TO UTILIZE ¾" ON CENTER GALVANIZED STEEL RODS WITH MALLEABLE IRON NUTS AT 108" SPACING.
2. WATER MAIN VALVES FOR FOUR INCH THROUGH FOURT-EIGHT INCH SHALL BE RESILIENT WEDGE GATE VALVES AS MANUFACTURED BY MULLER, MODEL #A-2361. VALVES SHALL BE PROVIDED WITH AN EXTENSION SERVICE BOX TO GRADE.
3. MAIN LINE VALVES TO BE SPACED NO FURTHER THAN 500' APART IN COMMERCIAL DISTRICTS AND 800' IN OTHER DISTRICTS.

WATER VALVE BOX DETAIL

MOD: 09/09/22

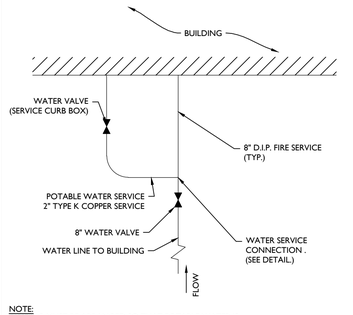
NOT TO SCALE MCNY-UTIL-WATR-1600 07/01/19



NOTES:
1. MEGA LUGS TO BE USED ON ALL MECHANICAL JOINT FITTINGS.
2. MULLER STAINLESS STEEL, MECHANICAL JOINT TAPPING SLEEVE MODEL #H-615 AND VALVE, MODEL A2361 IS TO BE USED IN ALL CASES, ALL HARDWARE INCLUDING, BUT NOT LIMITED TO NUTS, BOLTS, ECT SHALL BE STAINLESS STEEL.
3. CONCRETE BLOCK SHALL BE UNDER VALVE.

WET TAP DETAIL

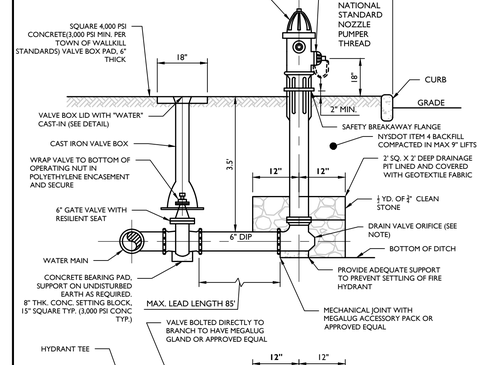
NOT TO SCALE WET TAP 07/01/19



NOTE:
VALVING MUST BE ARRANGED SO THAT POTABLE WATER IS TERMINATED IF FIRE PROTECTION LINE IS TURNED OFF

FIRE PROTECTION & SERVICE CONNECTION TO BUILDING DETAIL

NOT TO SCALE

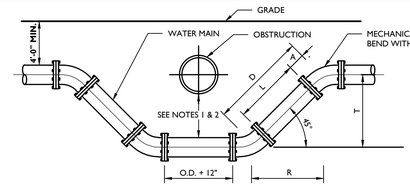


NOTES:
1. HYDRANT SHALL BE MUELLER SUPER CENTURION MODEL A-423 INCLUDING INTEGRAL MULLER "STORZ" CONNECTION ON THE NOZZLE. DESIGN WITH THE FOLLOWING SPECIFICATIONS.
   A. SAFETY COUPLED STANDPIPE.
   B. 6" MECHANICAL JOINT INLET CONNECTION
   C. TWO 2-1/2" NATIONAL STANDARD THREAD HOSE NOZZLES.
   ONE 4-1/2" NATIONAL STANDARD THREAD STEAMER NOZZLE, FACING THE ROAD.
   D. HYDRANT OPERATORS AND HYDRANT NOZZLE CAP NUTS SHALL BE IN ACCORDANCE WITH AWWA/ANSI STANDARD C502.
   E. HYDRANT HOSE CAPS SHALL BE ATTACHED BY MEANS OF CHAINS.
   F. HYDRANT BARRELS SHALL BE PAINTED - RED, BONNETS - YELLOW, AND NOZZLE CAPS - - BLACK TO INDICATE THE AVAILABLE FIRE FLOW OR AS IN ACCORDANCE WITH THE LOCAL REQUIREMENTS.
   G. HYDRANTS SHALL OPEN COUNTER CLOCKWISE.
2. STANDPIPE (BREAK-AWAY) COUPLING SHALL NOT EXCEED A MAXIMUM OF 2 INCHES FROM THE TOP OF THE CURB TO THE BOTTOM OF COUPLING.
3. THE DRAIN VALVE SHALL BE CLEAR OF ANY OBSTRUCTIONS, AND 3/4" CLEAN GRAVEL BE PLACED FROM THE BOTTOM OF THE HYDRANT TO A POINT 6" ABOVE THE HYDRANT LATERAL PIPE.
4. THRUST BLOCKS SHALL BE MADE OF 4,000 PSI CONCRETE, PROVIDED BEHIND THE HYDRANT SHOE.
5. BACKFILL MATERIAL SHALL BE IN ACCORDANCE WITH THE LOCAL JURISDICTION.
6. GATE VALVE SHALL BE T.W.W. 6" U.S. PIPE METROSEAL 250 R/S (RESILIENT SEALED) MECHANICAL JOINT END (RIGHT HAND).
7. WATER LATERAL SHALL BE 6" DUCTILE IRON CEMENT LINED CLASS 52 PIPE.
8. TIE ROD SHALL BE 3/4" DIAMETER TIE ROD WITH EYE BOLTS - TWO REQUIRED (SIDE VIEW SHOWN). RESTRAIN ALL JOINTS ON HYDRANT TEE, VALVE, AND HYDRANT LEAD.
9. HYDRANT TEE SHALL BE U.S. PIPE CATALOG #U.592 TRIM.TYTE DUCTILE IRON, MECHANICAL JOINT OR AN T.W.W. APPROVED SUBSTITUTE.
10. HYDRANT SPACING MAY RANGE FROM 350' TO A MAX OF 600'
11. HYDRANTS SHALL BE DRY-BARREL HYDRANTS, TYPE MULLER SUPER CENTURION IN ACCORDANCE WITH AWWA C502. HYDRANTS SHALL HAVE A MAIN VALVE SIZE OPENING OF 5" NOMINAL, ONE FOUR-AND ONE-HALF INCH NST PUMPER NOZZLE TWO TWO-AND ONE-HALF-INCH NST HOSE NOZZLES, A ONE-AND-ONE-HALF-INCH PENTAGON OPERATING NUT AND A SIX-INCH MECHANICAL JOINT INLET SHOW CONNECTION WITH ACCESSORIES.
12. ALL TEES, VALVES AND FITTINGS TO INCLUDE RESTRAINT IN THE FORM OF MEGA-LUG RETAINER GLANDS AND RODS.
13. WHEN HIGH GROUND WATER IS ENCOUNTERED WITHIN 2 FEET OF THE HYDRANT BOWL, THE WEEP HOLE IS TO REMAIN PLUGGED AND APPROPRIATELY WORDED SIGNAGE SHALL BE PERMANENTLY SECURED TO THE HYDRANT SPECIFYING THAT THE HYDRANT IS TO BE PUMPED DRY AFTER USE TO PREVENT DAMAGE DUE TO FREEZING TEMPERATURES.

FIRE HYDRANT (VALVE IN GRASS) DETAIL

MOD: 01/09/23

NOT TO SCALE MCNY-UTIL-WATR-1000 07/01/19



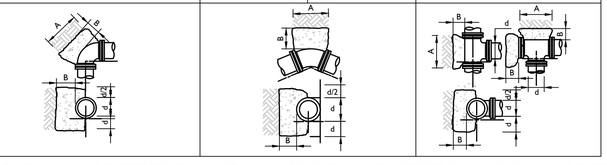
MECHANICAL JOINTS			
ANGLE	D =	R =	L =
45°	T x 1.414	T x 1.000	D-2A
22.5°	T x 2.613	T x 2.414	D-2A
11.25°	T x 5.126	T x 5.027	D-2A

NOTES:
1. WATER MAIN MAY CROSS ABOVE OBSTRUCTION IF **4'-0"** MINIMUM COVER IS MAINTAINED ABOVE THE WATER MAIN AND FINISH GRADE.
2. MINIMUM VERTICAL SEPARATION BETWEEN SANITARY OR STORM SEWER TO WATER MAIN SHALL BE 18" IF THE HORIZONTAL SEPARATION IS LESS THAN 10'. BETWEEN WATER MAIN AND OTHER UTILITIES, THE MINIMUM VERTICAL SEPARATION SHALL BE 12".
3. WATER MAIN SHALL BE SIZE AND MATERIAL SPECIFIED ON THE PLAN, WITH MECHANICAL JOINT OR PUSH-ON AND ALL FITTINGS BE CAST IRON MECHANICALLY JOINT.
4. OFFSETS MAY BE SUBSTITUTED FOR A "T" OF UP TO 24" IF APPROVED BY THE ENGINEER.
5. CONCRETE THRUST BLOCKS SHALL BE PROVIDED AT ALL BENDS OR OTHER POINTS OF PIPE DIRECTION CHANGE.
6. TIE RODS SHALL BE UTILIZED TO RESTRAIN PIPE JOINTS IF THRUST BLOCK IS NOT USED. DETAILS OF THE TIE ROD ASSEMBLY SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL. TIE RODS SHALL BE SUFFICIENT TO RESTRAIN THE THRUST DEVELOPED AT 100 PSI WORKING PRESSURE. MEGALUG RESTRAINT ALSO ACCEPTABLE IN PLACE OF TIE RODS.

WATER CROSSING UNDER UTILITY DETAIL

NOT TO SCALE MCNY-UTIL-WATR-1300 07/01/19

d	A	B	A	B	A	B	A	B
6"	30"	24"	24"	18"	18"	12"	27"	21"
8"	42"	30"	30"	24"	24"	18"	36"	27"
12"	66"	42"	45"	33"	33"	24"	48"	42"
16"	84"	48"	51"	39"	39"	30"	60"	48"
24"	102"	75"	78"	60"	60"	39"	108"	108"
30"	136"	84"	97"	64"	71"	44"	112"	120"
90° BENDS			45° BEND		22½° & 11¼° BENDS		TEE & PLUG	



NOTES:
1. ALL HORIZONTAL BENDS SHALL HAVE CONCRETE THRUST BLOCKS WITH MINIMUM BEARING AREAS AGAINST UNDISTURBED SOIL AND NO JOINT SHALL BE COVERED WITH CONCRETE.
2. TWO FORMS OF RESTRAINTS ARE REQUIRED ON ALL BENDS, OFFSETS, DEAD ENDS AND/ OR TEMPORARY DEAD ENDS FOR FUTURE EXPANSION. HYDRANTS WILL REQUIRE HYDRANTS WILL REQUIRE ADDITIONAL RESTRAINTS IN ACCORDANCE WITH "TYPICAL FIRE HYDRANT ASSEMBLY" DETAIL.
3. RESTRAINTS APPROVED FOR USE ARE THRUST BLOCKS, MEGA LUG RETAINER, GLANDS, TIE RODS AND FIELD LOCK GASKETS.
4. BEARING AREAS ARE BASED UPON UNDISTURBED SOIL WITH A MINIMUM BEARING CAPACITY OF 0.5 TONS PER SQUARE FOOT. FOR A LESSER SOIL BEARING CAPACITY THESE AREAS SHALL BE INCREASED ACCORDINGLY.
5. THRUST BLOCKS SHALL BE POURED DIRECTLY AGAINST TRENCH WALLS AND SHALL BE 4,000 PSI CONCRETE (3,000 PSI MIN.).
6. DETAILS FOR SUPPORTS AND BRACING FOR VERTICAL BENDS FOR 12" DIAMETER OR LARGER SHALL BE APPROVED BY THE AUTHORITY PRIOR TO CONSTRUCTION.

THRUST BLOCKS DETAIL

NOT TO SCALE MCNY-UTIL-WATR-1400 07/01/19

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REV	DATE	DRAWN BY	DESCRIPTION



Justin Eric Dates
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LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
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Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
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PROJECT NUMBER: 23010468A
DRAWING NAME: C-DTLS

SHEET TITLE: CONSTRUCTION DETAILS

SHEET NUMBER: 15 of 18

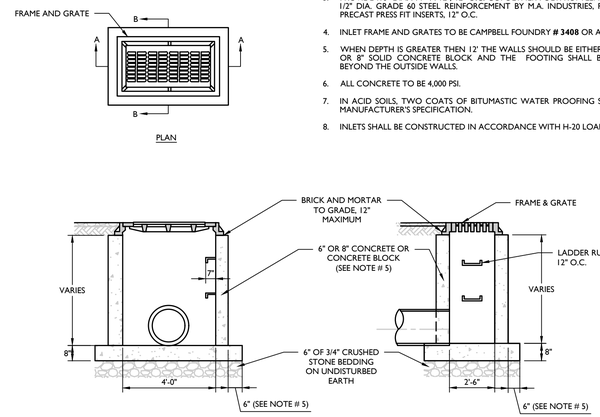
UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY MAPS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

\\AzPublish_323842-DTLS.dwg[C-15 DETAILS By: KYLE SHALLOW

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

NOTES:

1. INVERTS TO BE ELIMINATED IN BOTTOM OF TERMINAL INLETS. MINIMUM DIFFERENCE IN INVERTS TO BE 0.1 FEET
2. THIS INLET SHALL BE CONSTRUCTED OF PRECAST CONCRETE OR SOLID CONCRETE BLOCK. IF CONCRETE BLOCK IS USED, THE BOTTOM SHALL BE AS SHOWN FOR CONCRETE & THE OUTSIDE OF THE WALLS SHALL BE PLASTERED WITH 1/2" COAT OF 1:2 CEMENT SAND MORTAR, THE INSIDE WALLS JOINTS SHALL BE STRUCK AND POINTED.
3. PROVIDE 7/8" DIA. X 7" X 12", 12" O.C. COPOLYMER POLYPROPYLENE PLASTIC STEPS WITH 1/2" DIA. GRADE 60 STEEL REINFORCEMENT BY M.A. INDUSTRIES, PS2-PF OR PS2-B WITH PRECAST PRESS FIT INSERTS, 12" O.C.
4. INLET FRAME AND GRATES TO BE CAMPBELL FOUNDRY **# 3408** OR APPROVED EQUAL.
5. WHEN DEPTH IS GREATER THEN 12' THE WALLS SHOULD BE EITHER 8" THICK CONCRETE OR 8" SOLID CONCRETE BLOCK AND THE FOOTING SHALL BE EXTENDED TO 12" BEYOND THE OUTSIDE WALLS.
6. ALL CONCRETE TO BE 4,000 PSI.
7. IN ACID SOILS, TWO COATS OF BITUMASTIC WATER PROOFING SHALL BE APPLIED PER MANUFACTURER'S SPECIFICATION.
8. INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH H-20 LOADING REQUIREMENTS.

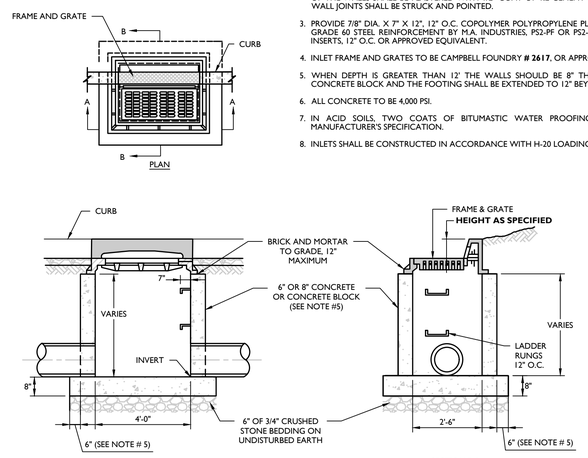


SINGLE DRAIN INLET DETAIL

NOT TO SCALE | MCNY-UTIL-STRM-1000 | 07/01/19

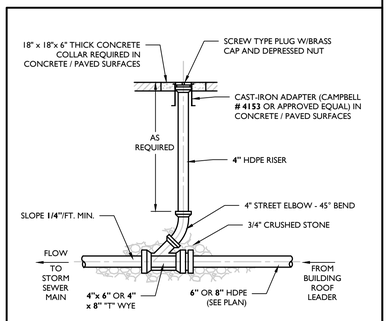
NOTES:

1. INVERTS TO BE ELIMINATED IN BOTTOM OF TERMINAL INLETS. MINIMUM DIFFERENCE IN INVERTS TO BE 0.1 FEET.
2. THIS INLET SHALL BE CONSTRUCTED OF PRECAST CONCRETE OR SOLID CONCRETE BLOCK. IF CONCRETE BLOCK IS USED, THE BOTTOM SHALL BE AS SHOWN FOR CONCRETE & THE OUTSIDE OF THE WALLS SHALL BE PLASTERED WITH 1/2" COAT OF 1:2 CEMENT SAND MORTAR. THE INSIDE WALL JOINTS SHALL BE STRUCK AND POINTED.
3. PROVIDE 7/8" DIA. X 7" X 12", 12" O.C. COPOLYMER POLYPROPYLENE PLASTIC STEPS WITH 1/2" DIA. GRADE 60 STEEL REINFORCEMENT BY M.A. INDUSTRIES, PS2-PF OR PS2-B WITH PRECAST PRESS FIT INSERTS, 12" O.C. OR APPROVED EQUIVALENT.
4. INLET FRAME AND GRATES TO BE CAMPBELL FOUNDRY **# 2617**, OR APPROVED EQUAL.
5. WHEN DEPTH IS GREATER THAN 12' THE WALLS SHOULD BE 8" THICK CONCRETE OR SOLID CONCRETE BLOCK AND THE FOOTING SHALL BE EXTENDED TO 12" BEYOND THE OUTSIDE WALLS.
6. ALL CONCRETE TO BE 4,000 PSI.
7. IN ACID SOILS, TWO COATS OF BITUMASTIC WATER PROOFING SHALL BE APPLIED PER MANUFACTURER'S SPECIFICATION.
8. INLETS SHALL BE CONSTRUCTED IN ACCORDANCE WITH H-20 LOADING REQUIREMENTS.



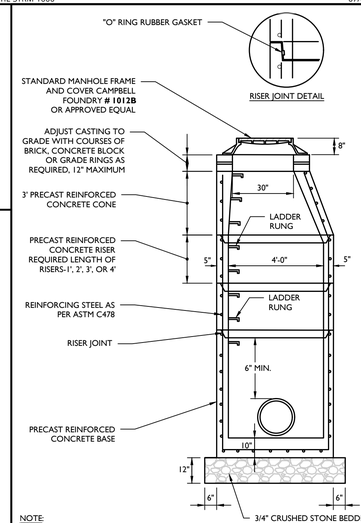
SINGLE CATCH BASIN DETAIL

NOT TO SCALE | MCNY-UTIL-STRM-1100 | 07/01/19



ROOF LEADER CLEANOUT DETAIL

NOT TO SCALE | MCNY-UTIL-STRM-1900 | 07/01/19

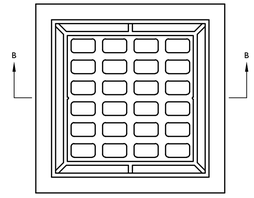


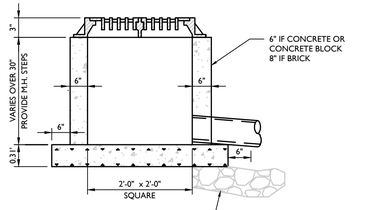
NOTE:

1. IN ACID SOILS, TWO COATS OF BITUMASTIC WATER PROOFING SHALL BE APPLIED PER MANUFACTURER'S SPECIFICATION.
2. ALL CONCRETE TO BE 4,000 PSI.

PRECAST CONCRETE STORM MANHOLE 4' DIA. DETAIL

NOT TO SCALE | MCNY-UTIL-STRM-1600 | 07/01/19



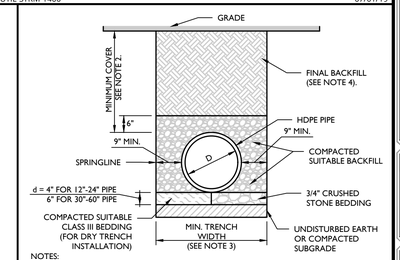


GENERAL CONSTRUCTION NOTES:

1. FOOTER TO BE CONCRETE.
2. INVERT TO BE 4000 PSI CONCRETE.
3. IF WALL CONSTRUCTION IS OTHER THAN CONCRETE, THE WALLS SHALL BE PLASTERED BOTH INSIDE AND OUTSIDE WITH 1/2" THICK CEMENT PLASTER.
4. FRAME AND GRATE TO BE **#3193** AS MANUFACTURED BY CAMPBELL FOUNDRY CO., OR APPROVED EQUAL.
5. PROVIDE 3/4" DIAMETER W.I. LADDER RUNGS, 12" O.C. (IF OVER 30" DEEP)
6. EXTERIOR OF ALL CONCRETE SHALL HAVE 2 COATS OF KOPPERS BITUMASTIC #5, OR EQUAL.
7. ALL WORK SHALL BE WATERTIGHT. NOT FOR USE IN PAVED AREAS.

YARD INLET DETAIL

NOT TO SCALE | MCNY-UTIL-STRM-1400 | 07/01/19



NOTES:

1. ALL PIPE SYSTEMS AND BACKFILL SHALL BE INSTALLED IN ACCORDANCE WITH ASTM D2321.
2. MINIMUM COVER FOR HDPE PIPES IS 12" UP TO 48" DIAMETER PIPE AND 24" OF COVER FOR UP TO 60" DIAMETER PIPE. PIPE COVER IS MEASURED FROM TOP OF PIPE TO THE BOTTOM OF FLEXIBLE PAVEMENT, OR TO THE TOP OF RIGID PAVEMENT, OR TO THE GROUND SURFACE.
3. MINIMUM TRENCH WIDTH PER MANUFACTURER'S RECOMMENDATIONS.
4. SUITABLE AND FINAL BACKFILL MATERIAL SHALL BE SITE SOILS FREE OF LARGE STONES. CLEAN FILL, OR ITEM 4.

HDPE STORM PIPE BEDDING DETAIL

NOT TO SCALE | 07/01/19

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REV	DATE	DRAWN BY	DESCRIPTION



Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-DTLS

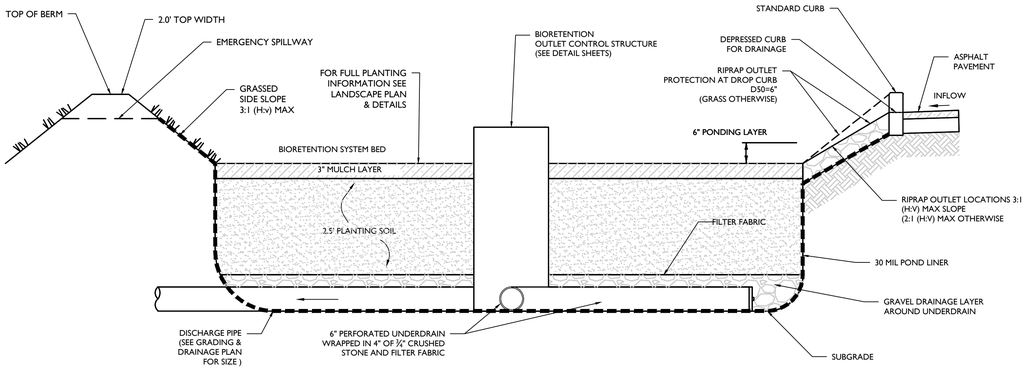
SHEET TITLE: CONSTRUCTION DETAILS

SHEET NUMBER: 16 of 18

\\Publish-3238\C-DTLS-Dwg\C-16-DETAILS By: KYLE.SHALLOW

PLANTING SOIL NOTE:

THE PLANTING SOIL SHOULD BE A SANDY LOAM, LOAMY SAND, LOAM (USDA), OR A LOAM/SAND MIX (SHOULD CONTAIN A MINIMUM 35 TO 60% SAND, BY VOLUME). THE CLAY CONTENT FOR THESE SOILS SHOULD BE LESS THAN 25% BY VOLUME. SOILS SHOULD FALL WITHIN THE SM, OR ML CLASSIFICATIONS OD THE UNIFIED SOIL CLASSIFICATION SYSTEM (USCS). A PERMEABILITY OF AT LEAST 1.0 FEET PER DAY (0.5"/HR) IS REQUIRED (A CONSERVATIVE VALUE OF 0.5 FEET PER DAY IS USED FOR DESIGN). THE SOIL SHOULD BE FREE OF STONES, STUMPS, ROOTS, OR OTHER WOODY MATERIAL OVER 1" IN DIAMETER, AND BRUSH OR SEED FROM NOXIOUS WEEDS. PLACEMENT OF THE PLANTING SOIL SHOULD BE IN LIFTS OF 12" TO 18", LOOSELY COMPACTED (TAMPED LIGHTLY WITH A DOZER OR BACKHOE BUCKET). THE SPECIFIC CHARACTERISTICS ARE AS FOLLOWS:



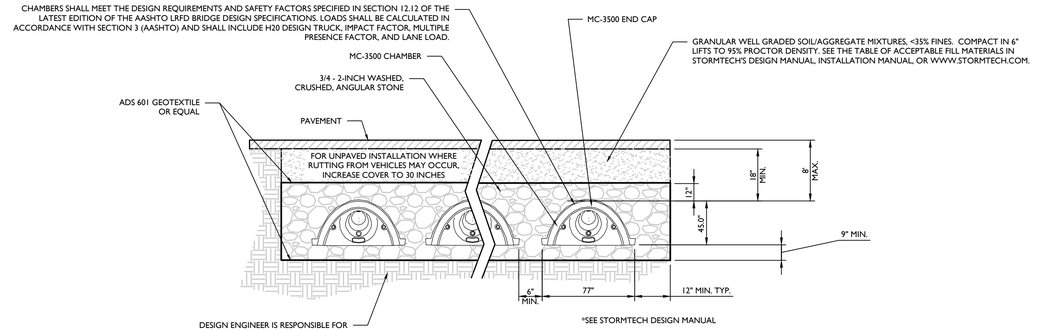
NOTES:

1. SEE PLAN FOR DROP CURB LOCATIONS AND BIORETENTION AREA CONFIGURATION.
2. PLANTING SOIL TO BE IN ACCORDANCE WITH NEW YORK STATE STANDARDS AND SPECIFICATIONS FOUND WITHIN THE PROJECT SWPPP.

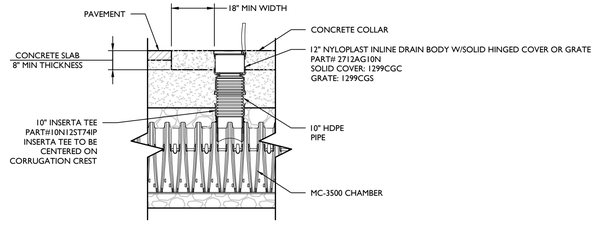
BIORETENTION SYSTEM CROSS SECTION DETAIL

NOT TO SCALE | MCNY-UTIL-STMW-2400 | 07/01/19

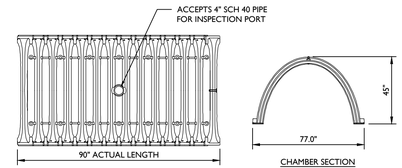
CHAMBERS SHALL MEET THE DESIGN REQUIREMENTS AND SAFETY FACTORS SPECIFIED IN SECTION 12.12 OF THE LATEST EDITION OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. LOADS SHALL BE CALCULATED IN ACCORDANCE WITH SECTION 3 (AASHTO) AND SHALL INCLUDE H20 DESIGN TRUCK, IMPACT FACTOR, MULTIPLE PRESENCE FACTOR, AND LANE LOAD.



SYSTEM SECTION



STORMTECH STORM CHAMBER INSPECTION PORT DETAIL



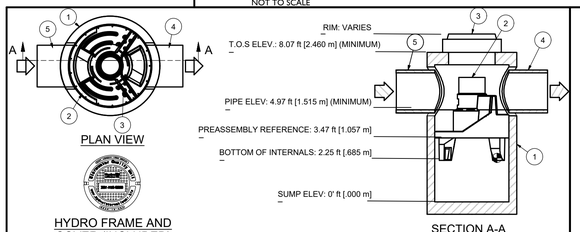
STORMTECH MC-3500 STORM CHAMBER DETAIL
N.T.S.

STORMTECH NOTES:

1. CHAMBERS SHALL BE STORMTECH MC-3500 OR APPROVED EQUAL.
2. CHAMBERS SHALL BE MADE FROM VIRGIN, IMPACT-MODIFIED POLYPROPYLENE COPOLYMERS.
3. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT WOULD IMPEDE FLOW.
4. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
5. THE INSTALLATION OF CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST INSTALLATION INSTRUCTIONS.
6. THE STONE USED FOR FILLING THE SUBSURFACE SYSTEM MUST BE CLEAN WASHED STONE FREE OF ALL SEDIMENT, FINES, AND DUST. THE CONTRACTOR MAY BE REQUIRED TO WASH THE STONE ON SITE UNTIL IT IS CLEAN TO THE TOUCH LEAVING NO RESIDUE BEHIND PRIOR TO PLACEMENT IN THE SYSTEM FOOTPRINT.
7. THE PROPOSED SUBSURFACE STORMWATER SYSTEM BOTTOM MUST BE PROTECTED FROM STORM RUNOFF AT ALL TIMES DURING CONSTRUCTION. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE INFILTRATION CAPACITY OF THE VIRGIN SOIL IS NOT COMPROMISED.
8. VEHICLE TRAFFIC MUST AVOID THE CHAMBER FOOTPRINT DURING CONSTRUCTION.
9. CONTRACTOR MUST SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW & APPROVAL.
10. END STONE TO BE 6" MIN. BEYOND END OF CHAMBER CAPS WITH 12" MIN. SIDE STONE TO PROVIDE MIN.

STORMTECH SUBSURFACE DETAIL

NOT TO SCALE | MCNY-UTIL-STMW-3500 | MOD: 01/20/21 07/01/19



HYDRO FRAME AND COVER (INCLUDED) GRADE RINGS BY OTHERS AS REQUIRED

NOTE: ADDITIONAL HEIGHT MAY BE REQUIRED DEPENDING ON PIPE SIZE

PRODUCT SPECIFICATION:

1. Peak Hydraulic Flow: 18.0 cfs (510 l/s)
2. Min Sediment Storage Capacity: 0.7 cu. yd. (0.5 cu. m.)
3. Maximum Inlet/Outlet Pipe Diameters: 24 in. (600 mm)
4. The Treatment System Shall Use An Induced Vortex To Separate Pollutants From Stormwater Runoff.
5. For More Product Information Including Regulatory Acceptances, Please Visit https://hydro-int.com/en/products/first-defense

GENERAL NOTES:

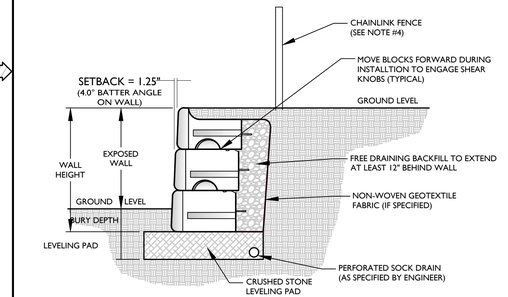
1. General Arrangement drawings only. Contact Hydro International for site specific drawings.
2. The diameter of the inlet and outlet pipes may be no more than 24".
3. Multiple inlet pipes possible (refer to project plan).
4. Inlet/outlet pipe angle can vary to align with drainage network (refer to project plans).
5. Peak flow rate and minimum height limited by available cover and pipe diameter.
6. Larger sediment storage capacity may be provided with a deeper sump depth.

1. MANHOLE WALL AND SLAB THICKNESSES ARE NOT TO SCALE.
2. CONTACT HYDRO INTERNATIONAL FOR A BOTTOM OF STRUCTURE ELEVATION PRIOR TO SETTING FIRST DEFENSE MANHOLE.
3. CONTRACTOR TO CONFIRM RIM, PIPE INVERTS, PIPE DIA. AND PIPE ORIENTATION PRIOR TO RELEASE OF UNIT TO FABRICATION.

PARTS LIST				
ITEM	QTY	SIZE (in)	SIZE (mm)	DESCRIPTION
1	1	48	1200	I.D. PRECAST MANHOLE
2	1			INTERNAL COMPONENTS (PRE-INSTALLED)
3	1	30	750	FRAME AND COVER (ROUND)
4	1	24 (MAX)	600 (MAX)	OUTLET PIPE (BY OTHERS)
5	1	24 (MAX)	600 (MAX)	INLET PIPE (BY OTHERS)

4' DIAMETER FIRST DEFENSE STORMWATER SEPARATOR

MOD: 09/25/20 07/01/19



NOTES:

1. THIS DETAIL IS A SCHEMATIC REPRESENTATION FOR MUNICIPAL AND/OR AGENCY APPROVALS AND IS NOT INTENDED TO BE USED FOR CONSTRUCTION.
2. CONTRACTOR TO PROVIDE SITE-SPECIFIC SHOP DRAWINGS AND STRUCTURAL DESIGN CALCULATIONS FOR EACH RETAINING WALL PREPARED BY A STATE LICENSED PROFESSIONAL ENGINEER FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.
3. MODULAR CONCRETE BLOCK WALL TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
4. A SAFETY BARRIER (FENCING) IS REQUIRED ON ALL WALLS WHERE THE WALL HEIGHT EXCEEDS 30", PLACEMENT AND INSTALLATION METHOD OF THE PROPOSED FENCING TO BE IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS

REDI-ROCK GRAVITY WALL WITH 28" BLOCKS DETAIL

NOT TO SCALE | REDI-ROCK-DETL | 01/29/24

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\\Archdata\...\23384C.DTLS.dwg|C-17 DETAILS | By: KYLE.SHALLOW

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REV	DATE	DRAWN BY	DESCRIPTION



Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
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5954-26-781983

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NEW YORK STATE

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555 Hudson Valley Avenue
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New Windsor, NY 12553
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AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-DTLS

SHEET TITLE: CONSTRUCTION DETAILS

SHEET NUMBER: 17 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

PLANT DETAIL NOTES

1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT. MULCH SHALL NOT TOUCH THE TREE TRUNK.

2. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

3. WIRE BASKETS AND NON-JUTE BURLAP MUST BE ENTIRELY REMOVED FROM THE ROOT BALL. JUTE BURLAP MUST BE REMOVED FROM THE TOP 1/3 OF THE ROOT BALL.

4. DEPTH OF PLANT PIT SHALL BE INCREASED BY 12" WHEREVER POOR SOIL CONDITIONS OCCUR, WITH THE ADDITION OF LOOSE AGGREGATE.

5. CONTRACTOR SHALL PARTIALLY FILL WITH WATER A REPRESENTATIVE NUMBER OF PITS IN EACH AREA OF THE PROJECT PRIOR TO PLANTING TO DETERMINE IF THERE IS ADEQUATE PERCOLATION. IF PIT DOESN'T PERCOLATE, MEASURES MUST BE TAKEN TO ASSURE PROPER DRAINAGE BEFORE PLANTING.

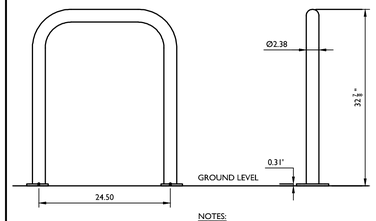
6. PLANTING MUST BE GUARANTEED FOR TWO FULL GROWING SEASONS FROM THE TIME OF FINAL ACCEPTANCE BY THE LANDSCAPE CONSULTANT. CONTRACTOR SHALL REMOVE ALL WRAPPING AT THE END OF GUARANTEE PERIOD OR SOONER PER PROJECT LANDSCAPE ARCHITECT.

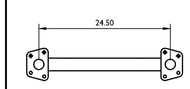
7. BACKFILL MIXTURE TO BE SPECIFIED BASED UPON SOIL TEST AND CULTURAL REQUIREMENTS OF PLANT.

8. PRUNE DAMAGED AND CONFLICTING BRANCHES MAINTAINING NORMAL TREE SHAPE, NEVER CUT CENTRAL TRUNK OR LEADER.

PLANT DETAIL NOTES

NOT TO SCALE PLNT-NOTE 01/29/24



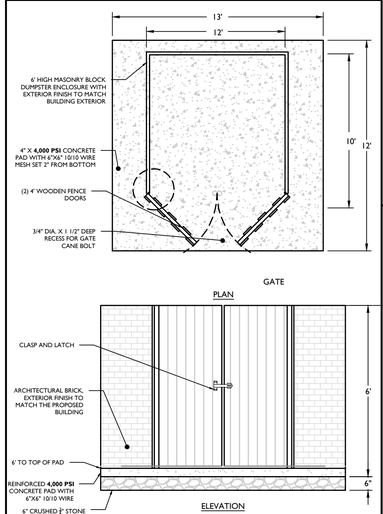


NOTES:

1. BICYCLE RACK MANUFACTURED BY PARK-A-BIKE HR202 (SURFACE MOUNT) OR APPROVED EQUAL. SHALL BE A POWDER COAT FINISH, COLOR RED.
2. INSTALL IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.

INVERTED 'U' BICYCLE RACK DETAIL

NOT TO SCALE MCCM-SITE-FNCE-2401 07/01/19



NOTES:

1. GATE TO REMAIN CLOSED WHEN NOT IN USE. HINGES TO INCLUDE SELF-CLOSING MECHANISM.

MASONRY TRASH ENCLOSURE (10' X 12') DETAIL

NOT TO SCALE GNRL-DTLS-STND-GRID 01/30/24

1. THIS PLAN SHALL BE USED FOR LANDSCAPE PLANTING PURPOSES ONLY. EXAMINE ALL ENGINEERING DRAWINGS AND FIELD CONDITIONS FOR SPECIFIC LOCATIONS OF UTILITIES AND STRUCTURES AND NOTIFY THE LANDSCAPE ARCHITECT OF ANY DISCREPANCIES OR LOCATION CONFLICTS PRIOR TO PLANTING INSTALLATION.

2. THE CONTRACTOR IS RESPONSIBLE TO LOCATE AND VERIFY LOCATION OF ALL UTILITIES ON SITE PRIOR TO CONSTRUCTION.

3. ALL PLANT MATERIAL SHALL CONFORM TO GUIDELINES AS SET FORTH IN THE LATEST EDITION OF THE AMERICAN ASSOCIATION OF NURSERYMEN'S STANDARD FOR NURSERY STOCK OR THE PLANT MATERIAL WILL BE UNACCEPTABLE. ALL PLANT MATERIAL SHALL BE TRUE TO SPECIES, VARIETY, SIZE AND BE CERTIFIED DISEASE AND INSECT FREE. THE OWNER AND/OR THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO APPROVE ALL PLANT MATERIAL ON SITE PRIOR TO INSTALLATION.

4. NO PLANT SUBSTITUTIONS SHALL BE PERMITTED WITH REGARD TO SIZE, SPECIES, OR VARIETY WITHOUT WRITTEN PERMISSION OF THE LANDSCAPE CONSULTANT. WRITTEN PROOF OF PLANT MATERIAL UNAVAILABILITY MUST BE DOCUMENTED.

5. THE LOCATION OF ALL PLANT MATERIAL INDICATED ON THE LANDSCAPE PLANS ARE APPROXIMATE. THE FINAL LOCATION OF ALL PLANT MATERIAL, AND PLANTING BED LINES SHALL BE DETERMINED IN THE FIELD UNDER THE DIRECTION OF THE LANDSCAPE ARCHITECT.

6. ALL STREET TREES AND SHADE TREES PLANTED NEAR PEDESTRIAN OR VEHICULAR ACCESS SHOULD NOT BE BRANCHED LOWER THAN 7'-0" ABOVE GRADE. ALL PLANT MATERIAL LOCATED WITHIN SIGHT TRIANGLE EASEMENTS SHALL NOT EXCEED A MATURE HEIGHT OF 30" ABOVE THE ELEVATION OF THE ADJACENT CURB. ALL STREET TREES PLANTED IN SIGHT TRIANGLE EASEMENTS SHALL BE PRUNED TO NOT HAVE BRANCHES BELOW 10'-0".

7. THE PLANTING PLAN SHALL TAKE PRECEDENCE OVER THE PLANT SCHEDULE SHOULD ANY PLANT QUANTITY DISCREPANCIES OCCUR.

8. ALL PLANT MATERIAL SHALL BE PROPERLY INSTALLED IN CONFORMANCE WITH THE TYPICAL PLANTING DETAILS. INSTALL ALL PLANT MATERIAL ON UNDISTURBED GRADE. CUT AND REMOVE JUTE BURLAP FROM TOP ONE-THIRD OF THE ROOT BALL. WIRE BASKETS AND NOT JUTE BURLAP SHALL BE COMPLETELY REMOVED PRIOR TO BACKFILLING THE PLANT PIT.

9. BRANCHES OF DECIDUOUS TREES SHALL BE PRUNED BACK BY NO MORE THAN ONE QUARTER (1/4) TO BALANCE THE TOP GROWTH WITH ROOTS AND TO PRESERVE THEIR CHARACTER AND SHAPE. THE CENTRAL LEADER OF TREE SHALL NOT BE PRUNED.

10. PROVIDE PLANTING PITS AS INDICATED ON PLANTING DETAILS. BACKFILL PLANTING PITS WITH ONE PART EACH OF TOPSOIL, PEAT MOSS AND PARENT MATERIAL. IF WET SOIL CONDITIONS EXIST THEN PLANTING PITS SHALL BE EXCAVATED AN ADDITIONAL 12" AND FILLED WITH CRUSHED STONE OR UNTIL FREE DRAINING.

11. ALL PLANT MATERIAL SHALL BEAR THE SAME RELATION TO FINISHED GRADE AS IT BORE TO EXISTING GRADE AT NURSERY.

12. OPTIMUM PLANTING TIME: DECIDUOUS - APRIL 1 TO JUNE 1 & OCTOBER 15 TO NOVEMBER 30, CONIFEROUS - APRIL 1 TO JUNE 1 & SEPTEMBER 1 TO NOVEMBER 1. PLANTING OUTSIDE OF THE OPTIMUM DATES SHALL NOT BE CONDUCTED WITH OUT PRIOR APPROVAL FROM THE LANDSCAPE CONSULTANT.

13. NEWLY INSTALLED PLANT MATERIAL SHALL BE WATERED AT THE TIME OF INSTALLATION. REGULAR WATERING SHALL BE PROVIDED TO ENSURE THE ESTABLISHMENT, GROWTH AND SURVIVAL OF ALL PLANTS. WATERING AMOUNTS SHOULD BE ADJUSTED AS RAIN EVENTS OCCUR. WATERING AFTER THE INITIAL 4 WEEKS SHALL BE ADJUSTED BASED ON SEASONAL CONDITIONS. WATERING SHALL NOT TAKE PLACE DURING THE HOTTEST POINT OF THE DAY.

14. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR TWO YEARS AFTER THE DATE OF FINAL ACCEPTANCE. ANY PLANT MATERIAL THAT DIES WITHIN THAT TIME PERIOD SHALL BE REMOVED, INCLUDING THE STUMP, AND REPLACED BY A TREE OF SIMILAR SIZE AND SPECIES AT NO EXPENSE TO THE OWNER.

15. THE LANDSCAPE CONTRACTOR SHALL PROVIDE A MINIMUM 4" LAYER OF TOPSOIL IN ALL LAWN AREAS AND A MINIMUM OF 12" OF TOPSOIL IN ALL PLANTING AREAS. A FULL SOIL ANALYSIS SHALL BE CONDUCTED AFTER CONSTRUCTION AND PRIOR TO PLANTING TO DETERMINE THE EXTENT OF SOIL AMENDMENT REQUIRED. SOIL PH SHOULD BE 5.5-6.5.

16. ALL DISTURBED LAWN AREAS SHALL BE STABILIZED WITH SEED AS INDICATED ON THE LANDSCAPE PLANS. TEMPORARY SEEDING SHALL BE IN ACCORDANCE WITH THE GENERAL SEEDING NOTES ON THIS SHEET. ALL DISTURBED LAWN AREAS SHALL BE TOPSOILED, LIMED, FERTILIZED AND FINE GRADED PRIOR TO LAWN INSTALLATION.

17. ALL PLANTING BEDS SHALL RECEIVE 3" OF SHREDDED HARDWOOD BARK MULCH.

18. ALL SHRUB MASSES SHALL BE PLANTED IN CONTINUOUS MULCHED BEDS.

19. ALL PLANTING DEBRIS (WIRE, TWINE, RUBBER HOSE, BACKFILL ETC.) SHALL BE REMOVED FROM THE SITE AFTER PLANTING IS COMPLETE. PROPERTY IS TO BE LEFT IN A NEAT ORDERLY CONDITION IN ACCORDANCE WITH ACCEPTED PLANTING PRACTICES.

GENERAL PLANTING NOTES

NOT TO SCALE GNRL-PLNT-NOTE 01/29/24

1. TEMPORARY SEEDING: REFER TO SOIL EROSION AND SEDIMENT CONTROL PLANS.

2. PERMANENT SEEDING SHALL CONSIST OF THE FOLLOWING MIXTURE OR APPROVED EQUAL: OPTIMUM SEEDING DATES ARE BETWEEN APRIL 1 AND MAY 31; AND AUGUST 16 AND OCTOBER 15. SEEDING OUTSIDE OF THE OPTIMUM DATES SHALL NOT BE CONDUCTED WITH OUT PRIOR APPROVAL. PERMANENT SEEDING TO BE APPLIED BY RAKING OR DRILLING INTO THE SOILS AT THE RATE GIVEN ABOVE.

TURF MIX

-TALL FESCUE, 'STINGRAY' (34%)
-TALL FESCUE, RAPTOR III (33%)
-HARD FESCUE, 'RIDU' (33%)

SEEDING RATE: 7-10 LBS./1,000 S.F. MIN

BIORETENTION AREA SEED MIXTURE
(NEW ENGLAND WETLAND PLANTS, INC. - NEW ENGLAND WETMIX, OR APPROVED EQUAL)

SPECIES LIST:

- FOX SEDGE, (CAREX VULPINIODEA)
- BLUNT BROOM SEDGE (CAREX SCOPARIA)
- LURID SEDGE (CAREX LURIDA)
- HOP SEDGE (CAREX LUPULINA)
- FOWL BLUEGRASS (POA PALUSTRIS)
- BEGGAR TICKS (BIDENS FRONDOSA)
- GREEN BULRUSH (SCIRPUS ATROVIRENS)
- SWAMP MILKWEED (ASCLEPIAS INCARNATA)
- FRINGED SEDGE (CAREX CRINITA)
- NEW YORK IRONWEED (VERNONIA NOVEBORACENSIS)
- SOFT RUSH (JUNCUS EFFUSUS)
- STARVED/CALICO ASTER (ASTER LATERIFLORUS)
- BLUE FLAG (IRIS VERSICOLOR)
- AMERICAN MANNAGRASS (GLYCERIA GRANDIS)
- SQUARE STEMMED MONKEY FLOWER (MIMULUS RINGENS)
- SPOTTED JOE PYE WEED (EUPATORIUM MACULATUM)

SEEDING RATE: 18 LBS PER ACRE.

NATIVE UPLAND WILDLIFE FORAGE & COVER MEADOW MIX
(ERNST CONSERVATION SEEDS - ERNMX-123, OR APPROVED EQUAL)

SPECIES LIST:

- BIG BLUESTEM, (ANDROPOGON GERARDII)	34.4%
- SWITCHGRASS (PANICUM)	27.0%
- VIRGINIA WILDRYE (ELYMUS VIRGINICUS)	21.0%
- INDIANGRASS (SORGHASTRUM NUTANS)	9.0%
- PARTRIDGE PEA (CHAMAECRISTA FASCICULATA)	3.0%
- BLACKEYED SUSAN (RUDBECKIA HIRTA)	3.0%
- OXEYE SUNFLOWER (HELIOPSIS HELIANTHOIDES)	1.5%
- PLAINS COREOPSIS (COREOPSIS TINCTORIA)	0.5%
- SHOWY TICKTREFOIL (DESMODIUM CANADENSE)	0.4%
- COMMON MILKWEED (ASCLEPIAS SYRIACA)	0.1%
- WILD BERGAMOT (MONARDA FISTULOSA)	0.1%

SEEDING RATE: 20 LBS PER ACRE

3. FERTILIZER FOR THE ESTABLISHMENT OF TEMPORARY AND PERMANENT VEGETATIVE COVER SHALL BE IN COMPLIANCE WITH THE LATEST NYSDEC REGULATIONS. THIS INCLUDES, BUT LIMITED TO:
   1. NO FERTILIZER SHALL BE APPLIED BETWEEN DEC. 1 AND APRIL 1 IN ANY YEAR.
   2. SHALL NOT BE APPLIED WITHIN 20 FEET OF A WATER BODY.
   3. ONLY LAWN FERTILIZER WITH LESS THAN 0.67% BY WEIGHT PHOSPHATE CONTENT MAY BE APPLIED.
   (A SOIL TEST PRIOR TO FERTILIZER APPLICATION IS RECOMMENDED.)

4. IF SEASON PREVENTS THE ESTABLISHMENT OF TEMPORARY OR PERMANENT SEEDING, EXPOSED AREA TO BE STABILIZED WITH MULCH AS INDICATED IN NOTE 4.

5. MULCH TO CONSIST OF SMALL GRAIN STRAW OR SALT HAY ANCHORED WITH A WOOD AND FIBER MULCH BINDER OR AN APPROVED EQUAL. MULCH WILL BE SPREAD AT RATES PER NYSDEC STANDARDS AND ANCHORED WITH A MULCH ANCHORING TOOL OR LIQUID MULCH BINDER, AND SHALL BE PROVIDED ON ALL SEEDLINGS. HYDROMULCH SHALL ONLY BE USED DURING OPTIMUM GROWING SEASONS.

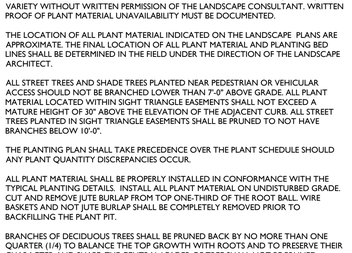
6. AS NEEDED, WORK LIME AND FERTILIZER INTO SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. ALL BUT CLAY OR SILTY SOILS AND COARSE SANDS SHOULD BE ROLLED TO FIRM THE SEEDBED WHEREVER FEASIBLE.

7. REMOVE FROM THE SURFACE ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION. REMOVE ALL OTHER DEBRIS, SUCH AS WIRE, CABLE, TREE ROOTS, PIECES OF CONCRETE, CLODS, LUMPS, OR OTHER UNSUITABLE MATERIAL.

8. INSPECT SEEDBED JUST BEFORE SEEDING. IF TRAFFIC HAS LEFT THE SOIL COMPACTED, THE AREA MUST BE RE-TILLED AND FIRMED AS ABOVE.

GENERAL SEEDING NOTES

NOT TO SCALE GNRL-SEED-NOTE 01/29/24

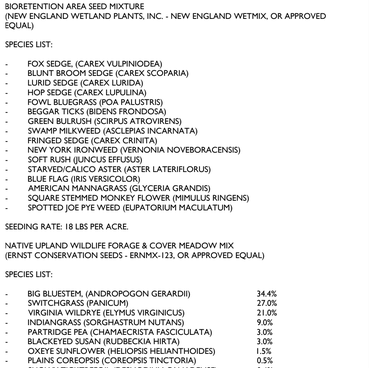


NOTES:

1. LUMINAIRES TO BE MANUFACTURED BY HYDREL OR APPROVED EQUAL.
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF LIGHT FIXTURES FOR REVIEW AND APPROVAL BY THE OWNER OR PROJECT LANDSCAPE ARCHITECT.
3. FOOTING TO BE DESIGNED PER MANUFACTURERS SPECIFICATIONS.
4. * - VOLTAGE TO BE PROVIDED BY ELECTRICIAN.

BOLLARD LIGHT DETAIL

NOT TO SCALE GNRL-LGHT-DETL 01/25/2024

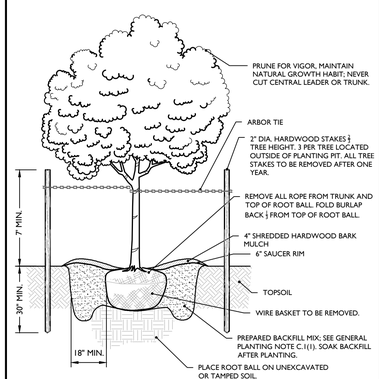


NOTES:

1. LUMINAIRES TO BE MANUFACTURED BY LITHONIA LIGHTING OR APPROVED EQUAL.
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF LIGHT FIXTURES FOR REVIEW AND APPROVAL BY THE OWNER OR PROJECT LANDSCAPE ARCHITECT.
3. *VOLTAGE TO BE CONFIRMED BY ELECTRICIAN CONTRACTOR.

WALL MOUNTED FIXTURE DETAIL

NOT TO SCALE GNRL-DTLS-LGHT 09/21/23

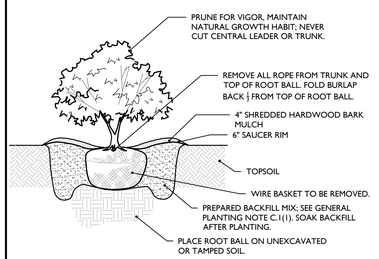


NOTES:

1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

DECIDUOUS TREE PLANTING DETAIL

NOT TO SCALE GNRL-DTLS-TREE 09/21/23

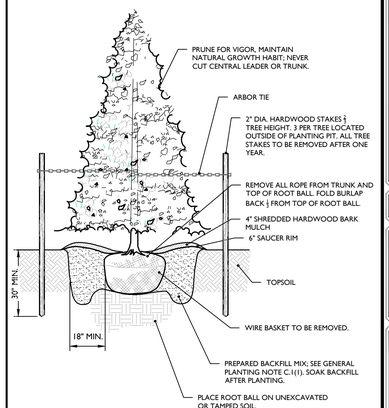


NOTES:

1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

SHRUB PLANTING DETAIL

NOT TO SCALE GNRL-DTLS-TREE 09/21/23

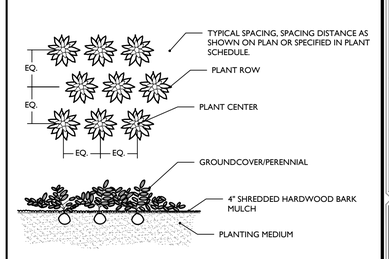


NOTES:

1. NO SOIL OR MULCH SHALL BE PLACED AGAINST ROOT COLLAR OF PLANT.
2. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

EVERGREEN TREE PLANTING DETAIL

NOT TO SCALE GNRL-DTLS-TREE 09/21/23

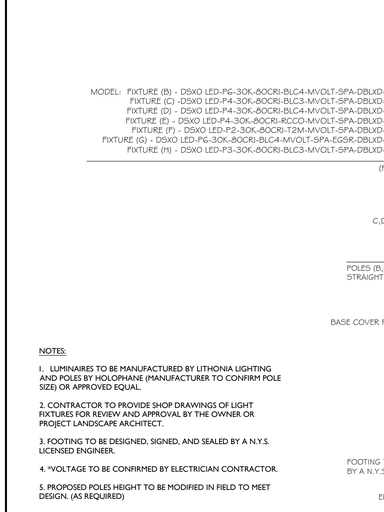


NOTES:

1. PLANTING DEPTH SHALL BE THE SAME OR HIGHER AS GROWN IN NURSERY.

GROUNDCOVER/PERENNIAL PLANTING DETAIL

NOT TO SCALE GNRL-DTLS-TREE 09/21/23



NOTES:

1. LUMINAIRES TO BE MANUFACTURED BY LITHONIA LIGHTING AND POLES BY HOLOPHANE (MANUFACTURER TO CONFIRM POLE SIZE) OR APPROVED EQUAL.
2. CONTRACTOR TO PROVIDE SHOP DRAWINGS OF LIGHT FIXTURES FOR REVIEW AND APPROVAL BY THE OWNER OR PROJECT LANDSCAPE ARCHITECT.
3. FOOTING TO BE DESIGNED, SIGNED, AND SEALED BY A N.Y.S. LICENSED ENGINEER.
4. *VOLTAGE TO BE CONFIRMED BY ELECTRICIAN CONTRACTOR.
5. PROPOSED POLES HEIGHT TO BE MODIFIED IN FIELD TO MEET DESIGN. (AS REQUIRED)

POLE MOUNTED FIXTURE DETAIL

NOT TO SCALE GNRL-DTLS-LGHT 09/21/23

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY MAPS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

\\Acrobat\...\23284C-DTLS.dwg|C-18 DETAILS By:KYLE SHALLOW

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REV	DATE	DRAWN BY	DESCRIPTION

REGISTERED LANDSCAPE ARCHITECT — JUSTIN E. DATES — 001964 — STATE OF NEW YORK

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-DTLS

SHEET TITLE: CONSTRUCTION DETAILS

SHEET NUMBER: 18 of 18

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

Colliers
Engineering
& Design

Preliminary Stormwater Pollution Prevention Plan

January 30, 2024

45 Beekman Street Mixed-Use Development
City of Beacon, Dutchess County, New York

Prepared for:

Beekman Arts Center LLC &
Bay Ridge Studios LLC
268 Main Street
Beacon, NY 12508

Prepared by:



Connor P. McCormack, P.E.
New York State
Professional Engineer
License No. 103756

Digitally signed by Connor Patrick McCormack
Date: 2024.01.29 16:55:54-04'00'

Colliers Engineering & Design
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Main: 845.564.4495
Colliersengineering.com

Project No. 23010468A

Colliers
Engineering & Design

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*Appendix 5 – Draft Notice of Intent (NOI)
*Appendix 6 – Draft Notice of Termination (NOT)
*Appendix 7 – MS4 Acceptance Form
*Appendix 8 – NRCS Hydrologic Soil Mapping
*Appendix 9 – Construction Site Logbook
*Appendix 10 – NYSDEC Construction Stormwater Inspection Manual
*Appendix 11 – Contractor Certification Form
*Appendix 12 – NYSDEC Deep-Ripping & Decompaction Manual
*Appendix 13 – NOAA Precipitation Data
*Appendix 14 – Operation and Maintenance Plan
*Appendix 15 – Geotechnical Report
*Appendix 16 – Erosion and Sediment Control Plans
*Appendix 17 – NJ CAT Certification – First Defense

*appendix shall be included with the Final SWPPP.

EXECUTIVE SUMMARY

Project Name:	Owner Name and Address:
45 Beekman Street Mixed-Use Development City of Beacon Dutchess County New York	Beekman Arts Center LLC & Bay Ridge Studios LLC 268 Main Street Beacon, NY 12508
Project Location:	**Project Engineer and Firm:**
45 Beekman Street City of Beacon, Dutchess County , NY 12508 Tax lots: 5955-19-706012, 5954-26-689990, 5954-26-781983	Connor P. McCormack, P.E. Colliers Engineering & Design 555 Hudson Valley Avenue, Ste 101 New Windsor, NY 12553 (845) 564-4495

Figure 1: Project Location Aerial



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INTRODUCTION

The project site is in the city of Beacon, Dutchess County, New York, bounded by North Avenue (Rt 9D), Beekman Street, High Street, and Tompkins Avenue. The property is comprised of tax lots 5955-19-706012, 5954-26-689990, & 5954-26-781983 and is located within the Linkage (L) Zoning District and has a total lot area 77,717 square feet, or 1.79 acres. The existing site is partially developed with an existing art studio, driveways, and parking lot. The balance of the site is maintained by lawn and woods.

The applicant proposes to redevelop the site with two (2) 4-story mixed-use buildings with ground floor commercial space and multi-family residential units. The project will include off-street surface and garage parking facilities (83 total spaces) using existing driveway connections to Tompkins Avenue and Beekman Street. The site improvements also include water and sanitary sewer service connections to City of Beacon mains, stormwater management features necessary to support the development, and landscaping and lighting improvements.

To meet the stormwater requirements, (2) two bioretention basins and (1) one subsurface detention system is proposed on site. These stormwater features have been designed in accordance with the 2015 New York State Stormwater Management Design Manual and local municipal requirements.

Due to the size of the project, coverage under the State Pollutant Discharge Elimination System Permit (SPDES GP 0-20-001), administered by New York State Department of Environmental Conservation (NYSDEC), is required.

STORMWATER MANAGEMENT GOALS

The Stormwater Pollution Prevention Plan (SWPPP) has been prepared in compliance with the New York State Department of Environmental Conservation (NYSDEC), State Pollutant Discharge Elimination System (SPDES) and General Permit for Stormwater Discharges from Construction Activity, Permit No. GP-0-20-001 (See ***Appendix 4***). The SWPPP is a plan for controlling runoff and pollutants from a site during and after construction activities. The principal objective of this document is to comply with the SPDES Permit for construction activities by planning and implementing the following practices:

- Reduction or elimination of erosion and sediment loading to water bodies during and after construction.
- Control of the impact of stormwater runoff on the water quality of the receiving waters.
- Control of the peak rate of runoff during and after construction.
- Maintenance of stormwater controls during and after completion of construction.

Classification & Standards

The activities associated with this project are eligible for coverage under this permit. Using the General Permit guidelines for coverage, a summary of classification and requirements is provided below:

Project Type:

- *Commercial developments.*
- *Multi-family residential developments.*

Classification: ***Appendix B***, Table 2, of the GP-0-20-001 "Construction activities that require the preparation of a SWPPP that includes Post Construction Stormwater Practices".

The following guidance documents, in addition to various resources located on the NYS Department of Environmental Conservation website, were used in thepreparation of this SWPPP.

- The New York State Stormwater Management Design Manual, by New York State Department of Environmental Conservation, August 2015.
- New York Standard Specifications for Erosion and Sediment Control, by New York State Department of Environmental Conservation, November 2016.

The SWPPP is intended to be a *'living'* document and should be revised and updated whenever site conditions dictate. Any proposed modifications shall be reviewed by the owner/operator prior to incorporation in the SWPPP and implementation at the project site. The certifying engineer of this SWPPP document shall be notified of any proposed modifications to this document. Modifications shall be in accordance with the NYSDEC technical standards.

METHODOLOGY

1. The watersheds are divided into subareas, by topography, soils, and land use. A summary of the watershed areas, composite curve numbers, and travel times are shown in Table 1.
2. Rainfall depths used for this analysis were taken from NOAA Atlas 14 data for the 100, 10, and 1-year 24-hour storms as directed in the NYSSMDM.
3. Topographical mapping is taken from a survey titled "Topographic Contour Survey of the lands Beekman Arts Center, LLC & Bayridge Studios, LLC", prepared by Jonathan N. Millen, LLS; Dated 11/3/2023 and supplemented with best available mapping.
4. The required water quality volume (WQv) was calculated in accordance with Section 4.2 and Chapter 9 (redevelopment) of the NYSSMDM. This is also the required RRv as per Section 4.3 of the NYSSMDM.
5. The provided RRv was calculated with the Green Infrastructure (GI) Worksheets, Version 1.6, provided by NYSDEC. The worksheets are included in ***Appendix 3***.
6. As this project is defined as re-development with an increase in impervious areas, the study shows mitigation of the proposed impervious areas as required per the NYSSMDM.
7. The peak flows from the watersheds in the existing condition are computed using the runoff curve numbers taken from TR-55 to determine undeveloped peak runoff and runoff hydrographs at the design points. The existing peak flows are presented in the report.
8. In the post-development condition, the peak flows from the proposed development are computed using the runoff curve numbers taken from TR-55. The watersheds are adjusted for the proposed improvements and grading of the site. The runoff flows are hydraulically routed for updated travel times, diversions, and new storage structures, as necessary. The resulting proposed peak flows at the design point are presented in the report.

9. Erosion and sediment control plans and details have been included with the site plans. A full Erosion & Sediment Control Plan (plans and construction sequencing) designed in accordance with the New York State Standards and Specifications for Erosion and Sediment Control (aka the "bluebook") has been included in the ***Appendix*** of this document.
10. Maps indicating the various drainage conditions are enclosed in this report. Schematic diagrams of the flow models in the existing and proposed conditions are included in the HydroCAD output within ***Appendix 2***.
11. A Notice of Intent (NOI) for GP-0-20-001 has been included in the ***Appendix*** of this report.

DISCUSSION

Discussion of Design Points

The Project has one (1) design point, studied to mitigate stormwater peak flow and provide the required water quality requirements. The design point and drainage area were limited, wherever possible to the area of the proposed project site. The design point evaluated in this report is described as follows:

Design Point 1 is located at a storm drain at the northern corner of Beekman Street and High Street. It receives runoff from the project site, the surrounding rights-of-way, and the surrounding properties to the north and west of the project site. The runoff enters the design point via storm pipes either from other inlets on High Street or from the flared outlet section located on the project site along Beekman Street.

Table 1: Watershed Characteristics

Existing Conditions			
WS Name	**Area**	**CN**	**Tc (min)**
WS 1	4.330	76	15.4
Totals	4.330	-	-
Proposed Conditions			
WS Name	**Area**	**CN**	**Tc**
PWS-1	0.900	77	6.0
PWS-2	0.291	80	6.0
PWS-3	0.156	98	6.0
PWS-4	0.149	98	6.0
PWS-5	1.606	78	6.0
PWS-6	0.252	98	6.0
PWS-7	0.647	66	6.0
PWS-8	0.329	87	6.0
Totals	4.330	-	-

Soil Types

Soil data for this project was obtained from the NRCS Web Soil Survey (WSS) as operated by the USDA Natural Resources Conservation Service (NRCS) (See ***Appendix 8***)

One (1) soil designation is identified within the project site. The project site consists entirely of Dutchess-Cardigan complex, undulating, rocky (DwB). A further detailed description of the soil characteristics and properties can be found in ***Appendix 8*** of this report.

Hydrologic Soil Group (HSG)

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four (4) groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long duration storms. The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D and C/D). Conservatively, dual-class soil groups are considered "D" soils.

Table 2: Hydrologic soil groups

HSG	Soil (abbreviation)
B	DwB

Soil Boring and Infiltration Testing

Project specific soil testing has not yet been conducted as part of the preliminary stormwater designs. The required stormwater testing shall be conducted to confirm the existing soil conditions within the proposed basin locations. The final SWPPP and stormwater design shall be adjusted as necessary based on forthcoming soil testing.

Redevelopment.

As defined in Chapter 9 of the NYSSMDM, redevelopment activity is disturbance and reconstruction of existing impervious surfaces. This includes impervious surfaces removed within the last five (5) years. Redevelopment is distinguished from new development in that new development refers to construction on land where there had not been previous construction. Redevelopment specifically applies to constructed areas with impervious surface.

According to the Design Manual, Redevelopment of previously developed sites is encouraged from a watershed protection standpoint because it often provides an opportunity to conserve natural resources in less impacted areas by targeting development to areas with existing services and infrastructure. At the same time, redevelopment provides an opportunity to correct existing problems and reduce pollutant discharges from older developed areas that were constructed without effective stormwater pollution controls.

Site constraints associated with pre-developed project sites are another factor that makes it more difficult to provide standard stormwater practices (SMPs). The biggest constraints encountered on this site are primarily the presence of highly compacted and poorly drained soils. Chapter 9 of the NYSSMDM sets forth alternative design criteria for certain redevelopment projects because the technical standards contained elsewhere in the Manual were primarily intended for new development projects and compliance with those standards may present a challenge to some redevelopment projects.

All of the new development is located within the watershed's tributary to design point 1, therefore the net increase in impervious surface (0.28 acres) has been treated in these watersheds. A breakdown of the change in impervious areas for the project has been included below.

Table 3: Redevelopment Impervious Cover Comparison

Existing Tributary Impervious Area (Acres)	Proposed Tributary Impervious Area (Acres)	Net Change in Tributary Impervious Area (Acres)	Percent Change in Tributary Impervious Area
1.90	2.19	0.28	15%

Section 9.2.1 of the NYSSMDM details the sizing criteria for both water quantity and water quality control practices. If redevelopment results in no increase or a reduction of impervious area or changes to hydrology that increase the discharge rate, the one-, ten-, and hundred-year criteria will not be necessary. This consideration does not mean that quality or existing quantity controls may be neglected in planned designs. Since there are no existing quality or quantity controls on site, they cannot be neglected; therefore, the proposed design incorporates practices ensuring the reduction of peak flow rates for all criteria at all design points.

Because the project is considered "redevelopment with an increase in the impervious area", the water quality design will utilize two sets of design criteria. The 0.28 acres of additional impervious area will be treated as new development, and the remaining impervious area shall be treated as redevelopment. As outlined in Section 9.2.1.B.IV of the design manuals. The redevelopment water quality requirement shall be designed to treat 75% of the water quality volume from the impervious area within the LOD (1.148 Acres).

The project has been designed to treat the required redevelopment water quality Volume through and combination of SMPs with RRv capacity, and Alternative treatment practices. The treatment breakdown is provided below:

Required WQv = 25% * 1.148 acres = 0.287 acres

Proposed WQv = 0.11 acres (SMPs) + 0.31 (Alternative Practice). =0.42 acres

The design information for the redevelopment treatment has been included later in this report.

Zero-Net Increase:

The proposed storm water improvements for the site provide the required channel protection (CPv), overbank flood protection (Qp), and extreme flood protection (Qf). Peak flows have been reduced at the selected design point in the proposed condition for the 100, 10, and 1-year storms. These peak flow reductions can also be found in Table 4 below.

Table 4: Existing and Proposed Peak Flow Summary

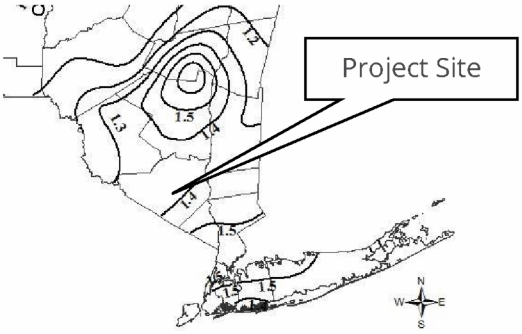
	Storm Events	Existing	Proposed	Diff.	Percent
DP 1	1	2.46	2.25	-0.21	-8.54%
	10	9.64	9.41	-0.23	-2.39%
	100	19.42	19.28	-0.14	-0.72%

*Peak Flows in Cubic Feet per second (CFS)

As is evident in the table above, attenuation of the peak flows by diversion, site planning, and the utilization of SMP's with RRv capacity have effectively reduced or maintained the peak discharge with providing the required water quality, which will be further discussed below.

Water Quality Volume (WQv):

The Water Quality Volume (WQv) is designed to improve water quality. The design captures and treats 90% of the average annual stormwater runoff volume. The WQv is directly related to the impervious cover created at a site. The 90% rainfall event value (P) used in the calculations (1.40") is shown below in the portion of Figure 4.1 from Section 4.2, pages 4-3 in the NYSSMDM.



90% Rule:

$WQ_v = [(P)(R_v)(A)] / 12$
$R_v = 0.05 + 0.009(I)$
I = Impervious Cover (Percent)
Minimum $R_v = 0.2$
P = 90% Rainfall Event Number (See Figure 4.1)
A = site area in acres

Colliers Engineering & Design determined the impervious area for each watershed in the proposed condition. The Runoff Coefficient "Rv" in the computation of Water Quality Volume WQv is dependent on the percent impervious cover. As per Section 4.2 of the NYSSMDM, 100% of the water quality volume shall be treated.

Table 5: Required Water Quality Calculation

Watershed	Area (A) Acres	90% Rainfall Event Number (P) Inches	Impervious Area treated Acres	Percent Impervious (I) %	Runoff Coefficient Rv	Required WQv Cf	Provided WQv Cf
PWS-1	0.39	1.40	0.39	100%	0.95	1,352*	1,883**

* The required WQv is based on the 0.28 Acres of new impervious area.
** The provided WQv includes treatment for 0.11 acres of redevelopment impervious area.

The total required water quality volume per NYSDEC standards is based on the proposed increase in impervious area (new development) 0.28 acres, is 1,352 or 0.031 Ac-ft. As shown in table 5 above, the current design provides the required Water quality volume.

Runoff Reduction Volume

The runoff reduction volume (RRv) is designed to reduce the stormwater volume leaving the site by capturing an amount equal to the computed water quality volume and infiltrating it onsite. However, for sites that cannot reduce runoff in an amount equal to the water quality volume, a minimum RRv is allowed if the project demonstrates acceptable limitations. The minimum RRv requirement (in acre-feet) was calculated as follows:

RRv_{min} = [(P)($\overline{R}$v)(S)(Aic)]/12 where,
I = Percent Impervious Cover (must be 100%)
P = 90% rainfall event = 1.4
$\overline{R}$v = 0.05+ [(0.009) (I)] = 0.95
S = Hydrologic Soil Group Reduction Factor = 0.40 (100% HSG B)
Aic = Total Area of new impervious cover (acres) = 0.28

$$RRv_{min} = \frac{[(P)(\overline{R}v)(S)(Aic)]}{12} = \frac{[(1.4)(0.95)(0.40)(0.28)]}{12} = 0.012 \text{ Acre-ft} = \mathbf{541\ ft^3}$$

Runoff from the new development impervious area has been treated by bioretention basins. Within these proposed practices, the entire WQv has not been reduced using standard SMPs with RRv capacity. The RRv and for each proposed practice is included in Table 6 below. Supporting calculations are provided in ***Appendix 3***.

Table 6 –RRv Volumes Provided

Watershed	Treatment Practice	RRv Provided (CF.)
PWS-1	Bioretention Basin (F-5)	796

The proposed development requires a minimum runoff reduction of 541 cf (0.012 Ac-Ft) to be reduced and total water quality to be treated for the proposed improvements. The proposed design exceeds the minimum requirement, providing an RRv of 796 cf (0.018 Ac-ft) and meets the requirement set forth by the NYSDEC requirements. This aspect of the design has been met.

Runoff Reduction Volume (RRv) through Site Planning:

The application of site planning and green infrastructure to reduce water quality volume with runoff reduction practices can either reduce the required water quality volume to be treated; or can completely account for the required water quality volume. The summary of this analysis can be found below. The combination of practices provided on site exceeds the minimum required water quality and runoff reduction for the proposed development.

The basic premise of runoff reduction is to recognize the water quality benefits of certain practices by allowing for a reduction in the water quality treatment volume. Runoff reduction is first achieved through better site design during the planning stages and has been implemented in the planning and design of this project as described in this report.

In accordance with Section 5.2 "Planning for Green Infrastructure: Reduction of Impervious Cover" of the NYSDEC Stormwater Management Design Manual, the proposed site plan has been designed to meet the planning techniques as follows:

Table 7: Green Infrastructure Site Planning

Preservation of undisturbed Areas	
Delineate and place into permanent conservation undisturbed forests, native vegetated areas, riparian corridors, wetlands, and natural terrain.	The extent of the clearing was limited to meet the user's needs. The project site is within the city and most of the site has been disturbed for construction in the past.
Preservations of Buffers	
Define, delineate and preserve naturally vegetated buffers along perennial streams, rivers, shorelines and wetlands.	Not applicable for this project.
Reduction of Clearing & Grading	

Limit clearing and grading to the minimum amount needed for roads, driveways, foundations, utilities and stormwater management facilities.	The clearing limit was minimized using maximum allowable slopes and retaining walls to meet grade where applicable.
Locating Development in Less Sensitive Areas	
Avoid sensitive resource areas such as floodplains, steep slopes, erodible soils, wetlands, mature forests and critical habitats by locating development to fit the terrain in areas that will create the least impact.	The project is classified as redevelopment and there are no environmentally sensitive areas on site.
Open Space Design	
Use clustering, conservation design or open space design to reduce impervious cover, preserve more open space and protect water resources.	Open areas are proposed on site.
Soil Restoration	
Restore the original properties and porosity of the soil by deep till and amendment with compost to reduce the generation of runoff and enhance the runoff reduction performance of post construction practices.	Compacted soils located in open areas without shallow existing utilities will be tilled in order to restore the original properties of the soil prior to seeding. (*see **Appendix 11***)
Roadway Reduction	
Minimize roadway widths and lengths to reduce site impervious area.	Roadway widths were reduced wherever possible to meet the end users needs and for emergency vehicle access.
Sidewalk Reduction	
Minimize sidewalk lengths and widths to reduce site impervious area.	Sidewalks added where needed to adequately and safely serve the pedestrian needs of the facility.
Driveway Reduction	
Minimize driveway lengths and widths to reduce site impervious area.	The proposed driveways have been minimized wherever possible.
Cul-de-Sac Reduction	
Minimize the number of cul-de-sacs and incorporate landscaped areas to reduce their impervious cover.	N/A no Cul-de-Sacs are proposed.
Building Footprint Reduction	

Reduce the impervious footprint of residences and commercial buildings by using alternate or taller buildings while maintaining the same floor to area ratio.	The building were designed to meet the potential end user's needs.
Parking Reduction	
Reduce imperviousness on parking lots by eliminating unneeded spaces, providing compact car spaces and efficient parking lanes, minimizing stall dimensions, using porous pavement surfaces in overflow parking areas, and using multi-storied parking decks where appropriate.	The parking spaces were limited to what is required by local municipal code and the end users needs.

Green Infrastructure Techniques (GITs):

After considering the reductions through Site Planning mentioned above, RRv remains to be treated through GITs and/or Standard SMPs. Chapter 5 of the NYSSMDM outlines the various Green Infrastructure Techniques that can be implemented on-site to achieve runoff reduction. The GI Worksheets included in the ***Appendix*** of this report provide the calculations for the Green Infrastructure Techniques chosen to treat the Runoff Reduction Volume for this project. Below is a brief description of each Green Infrastructure Technique along with a discussion regarding the feasibility of each technique with respect to this project.

Table 8: Green Infrastructure Feasibility

Conservation of Natural Areas	
Retain the pre-development hydrologic and water quality characteristics of undisturbed natural areas, stream and wetland buffers by restoring and/or permanently conserving these areas on a site.	There are no natural areas on the project site. it is located at the center of the City of beacon and is surrounded on all sides with development.
Sheetflow to Riparian Buffers or Filter Strips	
Undisturbed natural areas such as forested conservation areas and stream buffers or vegetated filter strips and riparian buffers can be used to treat and control stormwater runoff from some areas of a development project.	Not applicable for this project.
Vegetated Open Swale	
The natural drainage paths, or properly designed vegetated channels, can be used instead of constructing underground storm sewers or concrete open channels to increase time of	Vegetated open swales were used to divert clean runoff around the site, towards the design point.

concentration, reduce the peak discharge, and provide infiltration.	
Tree Planting/Tree Box	
Plant or conserve trees to reduce stormwater runoff, increase nutrient uptake, and provide bank stabilization. Trees can be used for applications such as landscaping, stormwater management practice areas, conservation areas and erosion and sediment control.	Tree planting has been proposed through the site but has not been quantified as a stormwater mitigation.
Disconnection of Rooftop Runoff	
Direct runoff from residential rooftop areas and upland overland runoff flow to designated pervious areas to reduce runoff volumes and rates.	Based on the site of the proposed building this is not a recomendded pratice.
Stream Daylighting for Redevelopment Projects	
Stream Daylight previously-culverted/piped streams to restore natural habitats, better attenuate runoff by increasing the storage size, promoting infiltration, and help reduce pollutant loads.	This strategy is not applicable to the project.
Rain Garden	
Manage and treat small volumes of stormwater runoff using a conditioned planting soil bed and planting materials to filter runoff stored within a shallow depression.	There are a few green locations proposed throughout the development but rain gardens have not been proposed on site.
Green Roof	
Capture runoff by a layer of vegetation and soil installed on top of a conventional flat or sloped roof. The rooftop vegetation allows evaporation and evapotranspiration processes to reduce volume and discharge rate of runoff entering conveyance system.	The structural design and use of the proposed buildings do not allow for this technique.
Stormwater Planter	
Small landscaped stormwater treatment devices that can be designed as infiltration or filtering practices. Stormwater planters use soil infiltration and biogeochemical processes to decrease stormwater quantity and improve quality.	Landscaping in green areas and planted beds are proposed throughout the development, but planters have not been proposed for treatment. No credit has been taken in the SWPPP.

Rain Tank or Cistern	
Capture and store stormwater runoff to be used for irrigation systems or filtered and reused for non-contact activities.	This practice has not been used for the proposed development.
Porous Pavement	
Pervious types of pavements that provide an alternative to conventional paved surfaces, designed to infiltrate rainfall through the surface, thereby reducing stormwater runoff from a site and providing some pollutant uptake in the underlying soils.	Due to maintenance concerns and the redevelopment classification of the site, this practice was not proposed.

The bioretention basins account for the runoff reduction as required. The site has been designed to meet the required water quality requirements without accounting for the pretreatment volume tributary to the proposed basins.

Soil restoration efforts, including mechanical decompaction and compost amendment in accordance with Section 5.1.6 and Table 5.3 of the NYSSMDM, are proposed for areas to be disturbed for improvements that will not be impervious at the final buildout.

Refer to Tables 7 and 8 above for the decision-making matrices utilized here. The design for the project utilized standard SMPs with RRv capacity to attain the required minimum runoff reduction volume and water quality for new construction and redevelopment, respectively. NYSDEC Green Infrastructure (GI) worksheets can be found in ***Appendix 3*** summarizing calculations.

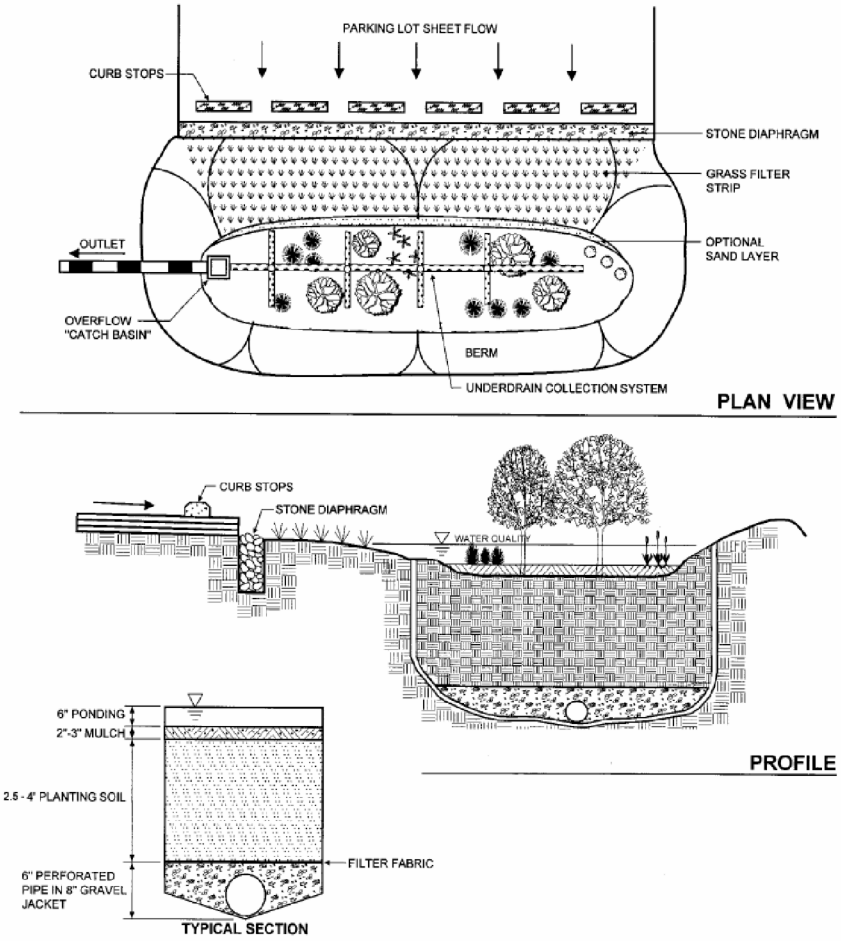
Bioretention Basins with Underdrain (No Infiltration):

The proposed development causes an increase in impervious cover. As such the runoff must be mitigated for water quality. One of the SMPs utilized for the proposed development is the use of bioretention with a proposed underdrain (F-5). Runoff from the development is proposed to be routed to a bioretention basin to provide runoff reduction capacity as well as water quality treatment volume. The basins are proposed with a 3-inch mulch layer, 2.5 feet of soil media, and a 12-inch drainage layer with a 6-inch underdrain which ultimately connects to an outlet control structure and discharges downstream to provide WQv. Bioretention soils shall meet the design criteria outlined in ***Appendix H*** of the NYSSMDM; soil deep ripping and de-compaction shall be in accordance with the NYSDEC guidelines found in the ***Appendix***.

The sizing calculation for the bioretention system was completed in accordance with the design requirements set forth in Section 6.4.4 of the NYSSMDM. Flush curbs with rip rap leading to grass filter strips have been provided in all locations for pre-treatment of the sheet flow from the paved areas.

The stage/storage information of the bioretention areas can be found in the HydroCAD output within the ***Appendix*** of this report. The NYSDEC GI worksheet for runoff reduction and water quality treatment can be found in the ***Appendix*** for RRv capacity calculations (See NYSDEC GI worksheet). A summary of the water quality provided in these facilities can be found in Table 6.

Figure 6.19 Bioretention (F-5)



Hydrodynamic Separator (Swirl Chamber):

The applicant proposes to install a hydrodynamic separator to provide water quality for the redevelopment portions of the site. Hydrodynamic separators are devices that move water in a circular, centrifugal manner to accelerate the separation and deposition of primary sediment from the water. They are suitable for the removal of coarse particles, oils, and fuels over small drainage areas. The NYSDEC refers to the New Jersey Department of Environmental Protection for a list of Stormwater Manufactured Treatment Devices which have received Interim Certification (included in the Appendix). One of the products on the list is the Hydro International First Defense unit.

Sizing of the First Defense system (an alternative stormwater practice) requires the application of a "rate-based" sizing approach for water quality treatment. In the "rate-based" approach, the device should be sized to treat the peak rate of runoff from the WQv storm; utilizing the WQv storm precipitation depth, the peak runoff for each tributary area can then be determined, and the associated devices sized appropriately. HydroCAD was used to determine the water quality flow rate for treatment sizing of the First Defense system. The table below lists the water quality storm event, its associated flowrate for the treatment structure, the tributary catchments, and the appropriately sized First Defense system capacity which provides in excess of the required flow, for the location shown on the plans

Table 1. First Defense® High Capacity Design Criteria.

First Defense® High Capacity Model Number	Diameter	Typical TSS Treatment Flow Rates			Peak Online Flow Rate	Maximum Pipe Diameter[1]	Oil Storage Capacity	Typical Sediment Storage Capacity[2]	Minimum Distance from Outlet Invert to Top of Rim[3]	Standard Distance from Outlet Invert to Sump Floor
		NJDEP Certified	106µm	230µm						
	(ft / m)	(cfs / L/s)	(cfs / L/s)	(cfs / L/s)	(cfs / L/s)	(in / mm)	(gal / L)	(yd^3 / m^3)	(ft / m)	(ft / m)
FD-3HC	3 / 0.9	0.84 / 23.7	0.3 / 8.77	0.53 / 15.0	15 / 424	18 / 457	125 / 473	0.4 / 0.3	2.0 - 3.5 / 0.6 - 1.0	3.71 / 1.13
FD-4HC	4 / 1.2	1.50 / 42.4	0.7 / 20	1.2 / 34	18 / 510	24 / 600	191 / 723	0.7 / 0.5	2.3 - 3.9 / 0.7 - 1.2	4.97 / 1.5
FD-5HC	5 / 1.5	2.34 / 66.2	1.3 / 37.9	2.2 / 62.2	20 / 566	24 / 609	300 / 1135	1.1 / .84	2.5 - 4.5 / 0.7 - 1.3	5.19 / 1.5
FD-6HC	6 / 1.8	3.38 / 95.7	2.2 / 63	3.8 / 108	32 / 906	30 / 750	496 / 1,878	1.6 / 1.2	3.0 - 5.1 / 0.9 - 1.6	5.97 / 1.8
FD-8HC	8 / 2.4	6.00 / 169.9	5.1 / 144	8.6 / 243	50 / 1,415	48 / 1219	1120 / 4239	2.8 / 2.1	3.0 - 6.0 / 0.9 -1.8	7.40 / 2.2

[1]Contact Hydro International when larger pipe sizes are required.
[2]Contact Hydro International when custom sediment storage capacity is required.
[3]Minimum distance for models depends on pipe diameter.

The First Defense treatment system has the capacity of bypassing high flow rates internally as well as controlling flow through the treatment chamber so as to avoid wash-out of previously captured pollutants. The HydroCAD output can be found in the Appendix of this report. Specifications for the First Defense Systems can also be found in the appendix of this report along with certification from NYSDEC that it is an accepted proprietary device. The NJCAT testing certification is also included within the Appendix.

Table 9: Swirl Chamber Sizing Calculations

Proposed First Defense System	90% Rainfall Event Number (P) Inches	Tributary Catchment Areas (WS-#)	Required Water Quality Flow, cfs	Hydro International First Defense Model	Treatment Capacity, cfs
S-14 (4' Dia)	1.4	PDA-1C	0.4	FD-4HC	1.50

Stormwater Conveyance & Pipe Capacity

The storm pipes and structures shall be designed to convey flows from the 25-year storm event per New York State standards. Drainage areas to each drainage structures shall be delineated,

and the land uses within the drainage area were calculated. The design information, along with the proposed pipe sizes, material, slopes and inlet capacities shall be entered into the HydroFlow Storm sewer program to analyze the capacity of the storm conveyance system. It should be noted that this program uses the rational method for calculation while the HydroCAD program uses TR-55. Pipe sizing design information will be included with the final SWPPP.

EROSION & SEDIMENT CONTROL

General Erosion Control Plan:

Construction operations shall be carried out in such a manner that erosion will be controlled and sediment migration minimized. Federal, State, and Local laws concerning pollution reduction will be followed. The control practices indicated in the attached Erosion & Sediment Control Plans shall be installed and used on this project.

In the event control practices not contained within the attached Erosion & Sediment Control Plans are required due to unforeseen/unknown existing conditions this SWPPP document contains applicable Erosion and Sediment Control details in ***Appendix 16*** as a reference. Details in ***Appendix 16*** are considered, as needed, and are not part of the construction documents for bidding purposes.

The list of measures and practices below are contained in the attached Erosion and Sediment Control Plans and shall be installed and maintained per the most current edition of the New York Standard Specifications for Erosion and Sediment Control Handbook. All erosion control measures implemented shall be in accordance with the construction sequence schedule as described in Section VIII of this narrative.

Temporary Measures

- *Silt Fence* – Silt fence shall be placed at a minimum along the toe of all fill areas or any location where surface sheet flow could be expected in accordance with temporary soil erosion and sediment control plans serving to reduce runoff velocity and effect deposition of transported sediment load. Where silt fence ends, the end shall turn and run perpendicular to contours for a length of ten (10) feet, or for a difference in elevation of two (2) feet, whichever comes first.
- *Mulching* – Mulching of all disturbed surfaces will be mandatory. Hydroseeding with mulch only mixes will be the preferred method.
- *Stabilized Construction Access* - A stabilized pad of aggregate underlain with geotextile located at any point where traffic will be entering or leaving a construction site to or from a public right-of-way, street, alley, sidewalk, or parking area. The purpose of stabilized construction access is to reduce or eliminate the tracking of sediment onto public rights-of-way or streets.

The access shall be maintained in a condition which will prevent tracking of sediment onto public rights-of-way or streets. This may require periodic top dressing with additional aggregate. All sediment spilled, dropped, or washed onto public rights-of-way must be removed immediately.

When necessary, wheels must be cleaned to remove sediment prior to entrance onto public right-of-ways. When washing is required, it shall be done on an area stabilized with aggregate, which drains into an approved sediment trapping device. All sediment shall be prevented from entering storm drains, ditches, or watercourses.

- *Concrete Washout Station* - A temporary concrete washout station is to be used near the entrance to the site. The station will have a depth of 24 inches and shall be a minimum of 10 feet by 10 feet. The station shall be lined with a 10mil waterproof plastic membrane. Tools or equipment that were used for concrete work will be cleaned here before leaving the site.

Permanent Measures

- *Topsoil, Seed & Mulch* – Final vegetative stabilization shall be used at all locations where the ground has been disturbed and impervious covers are not specified. Mulch shall be applied with, or immediately after seeding.
- *Rock outlet protection-* Stone riprap is to be placed at the outlet end of the culverts beneath the flared end section to slow down the flow of the runoff and reduce erosion.
- *-site grading and retaining walls* – The site grading has been designed to reduce the steep slopes on site, reducing the possibility of erosion due to runoff.

Maintenance and Inspection of Measures

All temporary and permanent soil erosion and sediment measures shall be maintained by the contractor during the life of the project. The contractor shall have a *trained contractor,* as defined in the GP-0-20-001 (See ***Appendix 4***), on site at all times. The *trained contractor* shall be responsible for the day-to-day construction and maintenance of all erosion and sediment control measures.

All temporary measures (silt fence, inlet protection, etc.) and permanent measures (landscaping) shall be inspected by the *Qualified Inspector* every seven (7) calendar days. The *Qualified Inspector* role and inspection requirements are outlined in Part IV.C of the GP-0-20-001 (See ***Appendix 4***). All inspections are required to be completed within one calendar day. Any comments, suggestions or corrective actions the *Qualified Inspector* notes shall be addressed by the contractor within 24 hours of the inspection.

Construction Sequence:

The construction sequence for the proposed development will be as follows:

- Schedule a pre-construction meeting at least 1 week prior to any construction site disturbance or equipment staging. At a minimum, the pre-construction meeting shall consist of the Cities Representatives including the Engineer as well as Contractors, Project Managers and Foreman.
- Install construction entrance.
- Stake limits of disturbance and orange construction fence for wetland protection.
- Install perimeter silt fencing on downhill areas as shown on plan.
- Install sediment ponds. Install temporary swales to direct all open soil area disturbance to sediment ponds, as necessary. Locations and size of the erosions and sediment control practices are noted on the plan. these may vary depending on the contractor's schedule and

approach but 3,600 cf of storage must be provided at a minimum per acre of upstream disturbance. Sediment traps shall be installed in accordance with the plans and details. Sediment traps and basins shall be sized in accordance with the New York standards and specifications for erosion and sediment control manual.

- Rough grade the site to allow for the construction of the northern retaining wall. Once complete, the proposed driveway/road and building footprint shall be rough graded. The building foundation and wall shall be installed to stabilize the center of the phase 1 construction as soon as practicable.
- Disturbed soils shall be temporarily stabilized as soon as practical. Materials stored in stockpiles shall be cordoned off with a silt fence per the appropriate specifications and details. The operator shall initiate stabilization measures as soon as practical in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than (14) days after the construction activity in that portion of the site has temporarily or permanently ceased.
- Utilities shall be installed. (non-pressure utilities shall be installed prior to watermain)
- Construct roads, drives, buildings, parking areas and install drainage systems.
- Topsoil/hay/seed lawn areas.
- When upstream drainage areas have been stabilized, the bioretention media, plantings and mulch can be installed and the sediment ponds can be removed. The phase 1 construction

- The project site must meet final stabilization criteria prior to removing all erosion and sediment control devices and closing out the project. Litter and construction debris shall be removed as practical throughout the life of the project.

    - *Final Stabilization* means that all soil disturbance activities have ceased and a uniform, perennial vegetative cover with a density of eighty (80) percent over the entire pervious surface has been established; or other equivalent stabilization measures, such as permanent landscape mulches, rock riprap or washed/crushed stone have been applied on all disturbed areas that are not covered by permanent structures, concrete or pavement.

- Upon final stabilization being met, the Contractor shall clear drainage pipes and structures of any sediment which may have accumulated. Additional erosion control measures shall be installed, as may be necessary, required and/or requested by authorities, to prevent the incidental discharge of silt laden runoff from entering a water course or a drainage system. The general permit for stormwater discharges from construction activities states that it is unlawful for any person to cause or contribute to a violation of water quality standards.

- Additional erosion control measures shall be installed, as may be necessary, required and/or requested by authorities, to prevent the incidental discharge of silt laden runoff from entering a water course or a drainage system. The general permit for stormwater discharges from construction activities states that it is unlawful for any person to cause or contribute to a violation of water quality standards.

For additional, general Erosion and Sediment Control notes including seeding, please refer to the Erosion and Sediment Control Plans.

Good Housekeeping

Good housekeeping practices are inexpensive, relatively easy to implement, and are often effective in preventing stormwater contamination. Specific activities that should be completed by the contractor are listed below:

Spill Inventory

The materials or substances listed below are expected to be present on-site during construction:

- Concrete
- Fertilizers
- Piping
- Paints (enamel & latex)
- Treated and non-treated wood
- Seed
- Tar
- Petroleum-based products
- Reinforcing steel
- Cleaning solvents
- Masonry block
- Paving materials

Material Management Practices

The following are the material management practices that shall be used to reduce the risk of spills or other accidental exposure of materials and substances to stormwater runoff:

- Products shall be kept in original containers unless they are not resealable.
- Original labels and material safety data sheets (MSDS) shall be retained; they contain important product information.
- An effort shall be made to store only enough products required to do the job.
- All materials stored onsite shall be stored in a neat, orderly manner in their appropriate containers, and if possible, under a roof or other enclosure and/or on non-porous blacktop.
- Products shall be kept in their original containers with the original manufacturer's label.
- Substances shall not be mixed with one another unless recommended by the manufacturer.
- Whenever possible, all a product shall be used up before disposing of the container.
- Manufacturer's recommendations for proper use and disposal shall be followed.
- The contractor's site superintendent shall inspect daily to ensure proper use and disposal of materials on site.

Spill Control Practices

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices shall be followed for spill prevention and cleanup.

- Spills, of any size, of toxic or hazardous material and/or petroleum products shall be reported to the NYSDEC and Central Hudson's Environmental Affairs division.
- Manufacturer's recommended methods for spill cleanup shall be clearly posted and site personnel shall be made aware of the procedures and the locations of the information and cleanup supplies.
- Materials and equipment necessary for spill cleanup shall be kept in the material storage area onsite. Equipment and materials shall include but not be limited to brooms, dust pans, mops, rags, gloves, kitty litter, sand, sawdust, and plastic and metal trash containers specifically for this purpose.
- All spills shall be cleaned up immediately after discovery.
- The spill area shall be kept well ventilated, and personnel shall wear appropriate PPE to prevent injury from contact with a hazardous substance.
- The spill prevention plan shall be adjusted to include measures to prevent toxic or hazardous material spills from recurring and how to clean up the spill. A description of the spill, what caused it, and the cleanup measures shall also be included.

The contractor's site superintendent is responsible for the day-to-day site operations and shall be the spill prevention and cleanup coordinator.

Product Specific Practices

The following product specific practices shall be followed onsite.

- Petroleum Products – All onsite vehicles shall be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. Petroleum products shall be stored in tightly sealed containers that are clearly labeled. Any asphalt substances used on site shall be applied according to manufacturer's recommendations.
- Fertilizers – Fertilizers shall be applied only in the minimum amounts recommended by the manufacturer. Use only fertilizers that have five (5) or fewer parts phosphorous. Once applied, fertilizers shall be worked into the soil to limit exposure to stormwater. Storage shall be in a covered shed. The contents of any partially used bags of fertilizer shall be transferred to a sealable plastic bin to avoid spills.
- Paints – All containers shall be tightly sealed and stored when not required for use. Excess paint shall not be discharged to the storm sewer system but shall be properly disposed of according to the manufacturer's instructions or state and local regulations.
- Concrete Trucks – Concrete trucks shall not be allowed to wash out or discharge surplus concrete or drum wash water on the site, unless in approved clean-out areas.
- Waste Disposal – All waste materials shall be collected and stored in a securely lidded metal dumpster rented from a licensed solid waste management company. The dumpster shall meet all local and any State solid waste management regulations. All trash and construction

debris from the site shall be deposited in the dumpster. The dumpster shall be emptied as necessary, and the trash shall be hauled to a NYSDEC permitted landfill. No construction waste materials shall be buried onsite. All personnel shall be instructed regarding the correct procedure for waste disposal.

- Hazardous Waste – All hazardous waste materials shall be disposed of in a manner specified by local or State regulations or the manufacturer. Site personnel shall be instructed in these practices.
- Sanitary Waste – All sanitary waste shall be collected from the portable units by a licensed sanitary waste management contractor, as required by local regulation and as required to protect public health and safety.
- Recyclable Waste – All recyclable waste (cardboard, wood, etc.) shall be collected and recycled on a weekly schedule.

Responsible Parties

Implementation of SWPPP

The owner/operator is responsible for implementing the provisions of the SWPPP and ensuring that the appropriate contractors and subcontractors on the site provide certification in accordance with the provisions of the GP-0-20-001.

The owner/operator is also responsible for having *Trained Contractor* and *Qualified Inspector* inspect the active construction site in accordance with section 6.3 of this report and all provisions for inspections defined in the GP-0-20-001, (See ***Appendix 10)*** A *Trained Contractor* cannot conduct *Qualified Inspector* site inspections unless they meet the *Qualified Inspector* qualifications listed in appendices of the GP-0-20-001.

Inspection Requirements

The owner/operator is responsible for implementing inspections of all erosion and sediment control measures. To do so, the owner/operator shall have a *Qualified Inspector* inspect the site in accordance with the guidelines of Part IV of the GP-0-20-001. A sample inspection template is provided in this document (See ***Appendix 9***).

The owner/operator shall maintain a record of all inspection reports in a site logbook. The site logbook shall be kept on site and be made available to the permitting authority upon request. The owner/operator shall also retain a copy of this SWPPP document at the construction site during the life of the project.

End of Project – Termination of Permit

Final Inspection

Prior to filing the Notice of Termination (NOT), or at the end of the permit term, the owner/operator shall have a Qualified Inspector perform a final site inspection. The inspector shall certify that the site has undergone final stabilization using either vegetative or structural stabilization methods. Final stabilization means that all soil-disturbing activities at the site have been completed and a uniform, perennial vegetative cover with a density of 80% has been established on all unpaved areas and areas not covered by permanent structures.

Notice of Termination (NOT)

When the site has been finally stabilized, the owner/operator must submit a Notice of Termination (NOT) form to terminate coverage under SPDES General Permit GP-0-20-001. The permittee must identify all the permanent stormwater management structures that have been constructed. In addition, a manual describing the operation and maintenance practices that will be necessary for the structures(s) to function as designed after the site is stabilized must be developed and in place. The permittee must also certify that the permanent structure(s) have been constructed in conformance with this document. A copy of NOT is provided in this document (see ***Appendix 6***).

Record Keeping

The owner/operator shall retain copies of SWPPP, any reports submitted in conjunction with this permit, and records of all data used to complete the NOI & NOT for a period of at least five (5) years from the date that the site is finally stabilized.

SUMMARY OF PROPOSED STORMWATER IMPROVEMENTS

The proposed project falls under the New York State definition of redevelopment with an increase in impervious area, requiring coverage under the General permit. The site runoff has been attenuated for peak flows in the peak design storms. The proposed development has been designed to treat the required water quality through SMP's with RRv capacity, and Alternative practices. The design utilizes DEC approved practices that help maintain the existing hydrology.

CONCLUSION

As the storm water pollution prevention plan meets the water quality requirements for a new and redevelopment portion of the project, and meets peak flow mitigation to the applicable standards, there should be no adverse impacts due to storm water, on-site or off-site, as a result of the proposed site improvements.

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APPENDIX 1

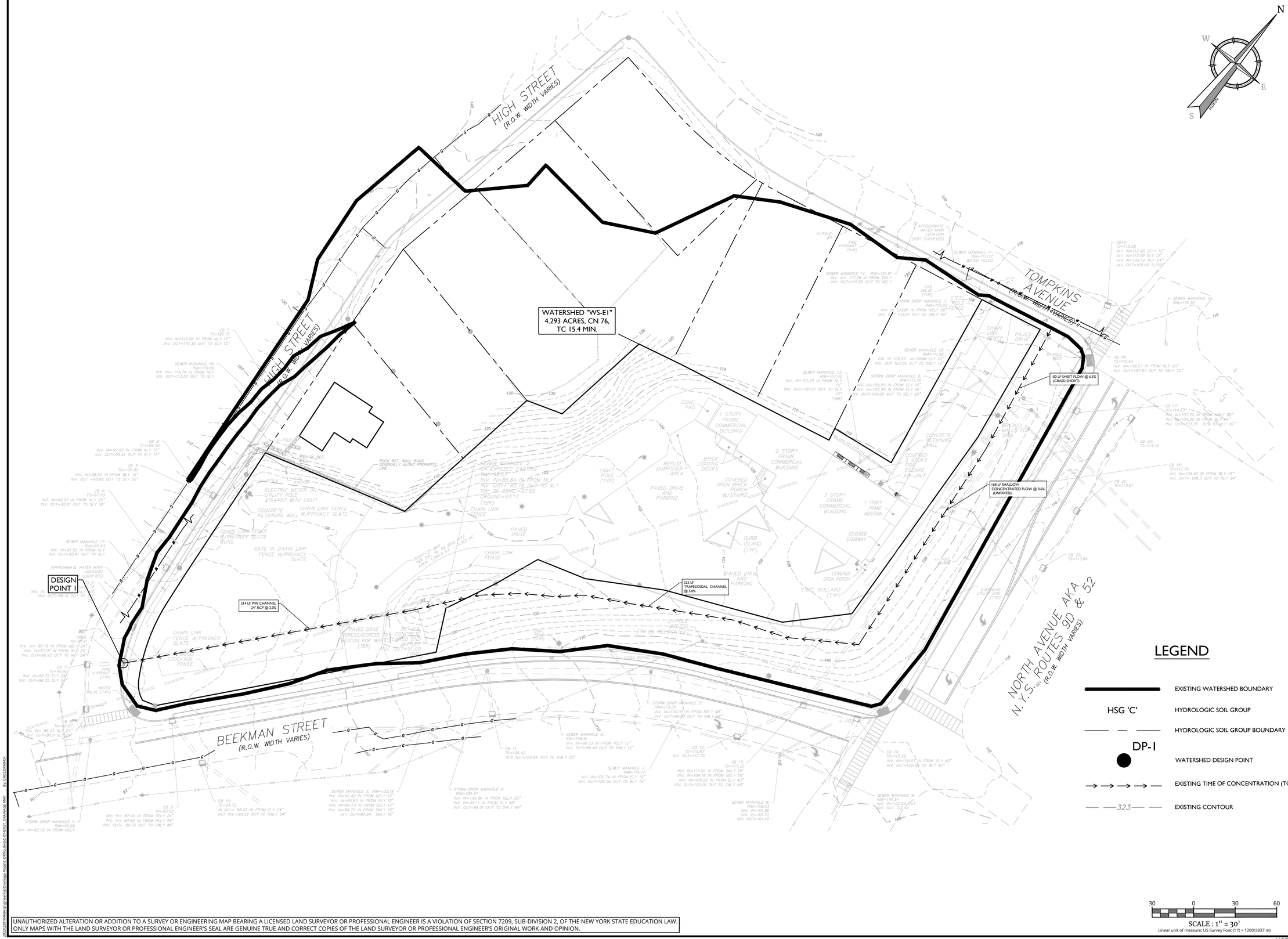
WATERSHED MAPS

APPENDIX 2

HYDROCAD MODEL OUTPUT

APPENDIX 3

NYSDEC GREEN INFRASTRUCTURE WORKSHEETS



LEGEND

- EXISTING WATERSHED BOUNDARY
- HSG 'C' — HYDROLOGIC SOIL GROUP
- HYDROLOGIC SOIL GROUP BOUNDARY
- DP-1 — WATERSHED DESIGN POINT
- EXISTING TIME OF CONCENTRATION (TC)
- 323 — EXISTING CONTOUR

UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY OR ENGINEERING MAP BEARING A LICENSED LAND SURVEYOR OR PROFESSIONAL ENGINEER IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW. ONLY MAPS WITH THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE LAND SURVEYOR OR PROFESSIONAL ENGINEER'S ORIGINAL WORK AND OPINION.

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

2023\23010468A\Engineering\Drainage Maps\C-DRNG.dwg|C-01 EXST. DRAINAGE MAP By:CMCCORMACK

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FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION

WATERSHED MAP

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
5955-19-706012
5954-26-689990
5954-26-781983

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

Colliers Engineering & Design
NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN, ARCHITECTURE, LANDSCAPE ARCHITECTURE, SURVEYING CT, P.C. DOING BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	1/30/2024	KAS	CPM

PROJECT NUMBER:	DRAWING NAME:
23010468A	C-DRNG

SHEET TITLE:
EXISTING DRAINAGE MAP

SHEET NUMBER:
01 of 02



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2023\23010468A\Engineering\Drainage Maps\C-DRNG.dwg|C-02-PROP. DRAINAGE MAP By: CMCCORMACK

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REV	DATE	DRAWN BY	DESCRIPTION

WATERSHED MAP

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
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CITY OF BEACON
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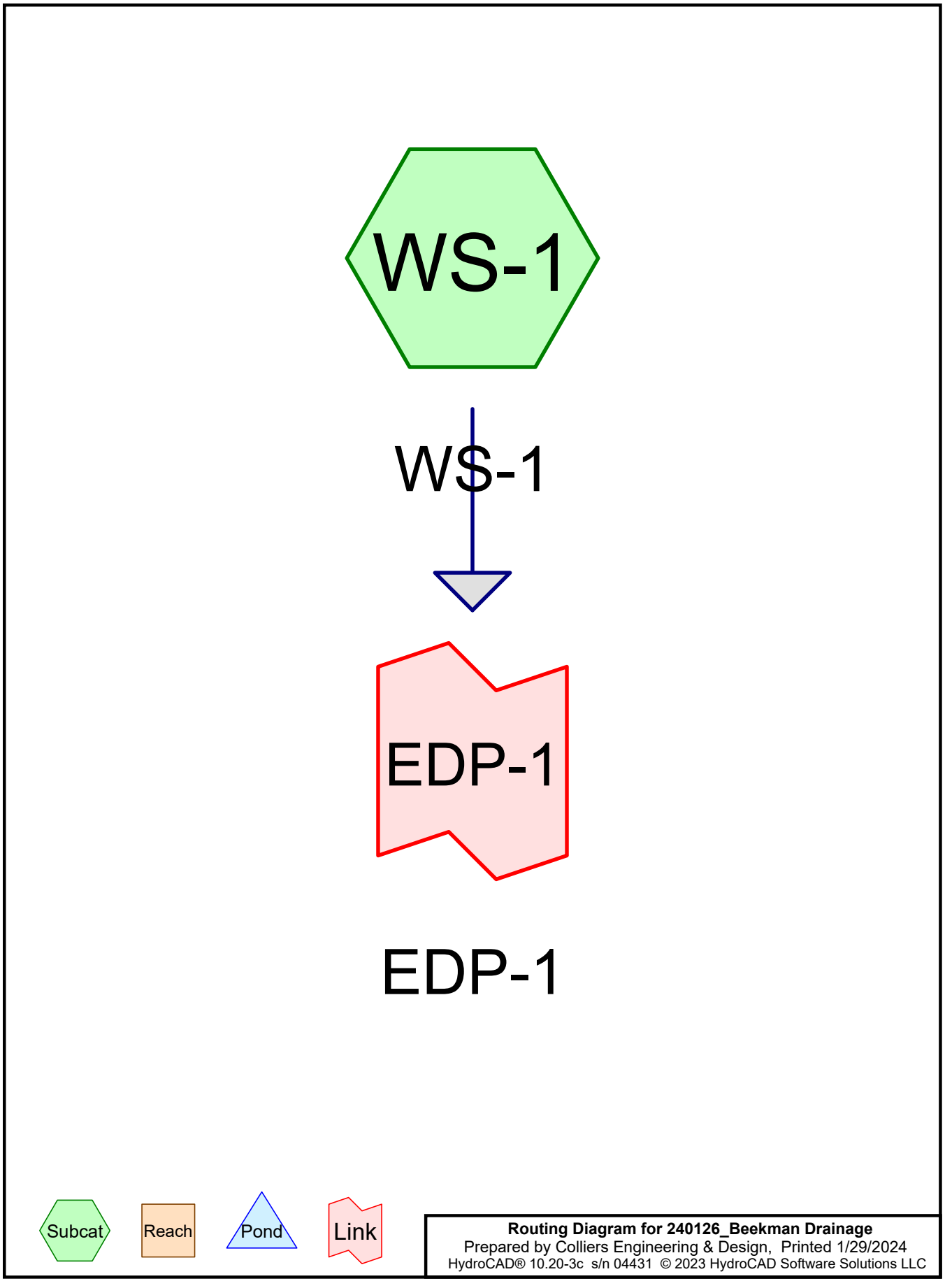
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	1/30/2024	KAS	CPM

PROJECT NUMBER:	DRAWING NAME:
23010468A	C-DRNG

SHEET TITLE:
PROPOSED
DRAINAGE MAP

SHEET NUMBER:
02 of 02

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION


WS-1
WS-1
EDP-1
EDP-1
Subcat
Reach
Pond
Link
Routing Diagram for 240126_Beekman Drainage
Prepared by Colliers Engineering & Design, Printed 1/29/2024
HydroCAD® 10.20-3c s/n 04431 © 2023 HydroCAD Software Solutions LLC

Summary for Subcatchment WS-1: WS-1

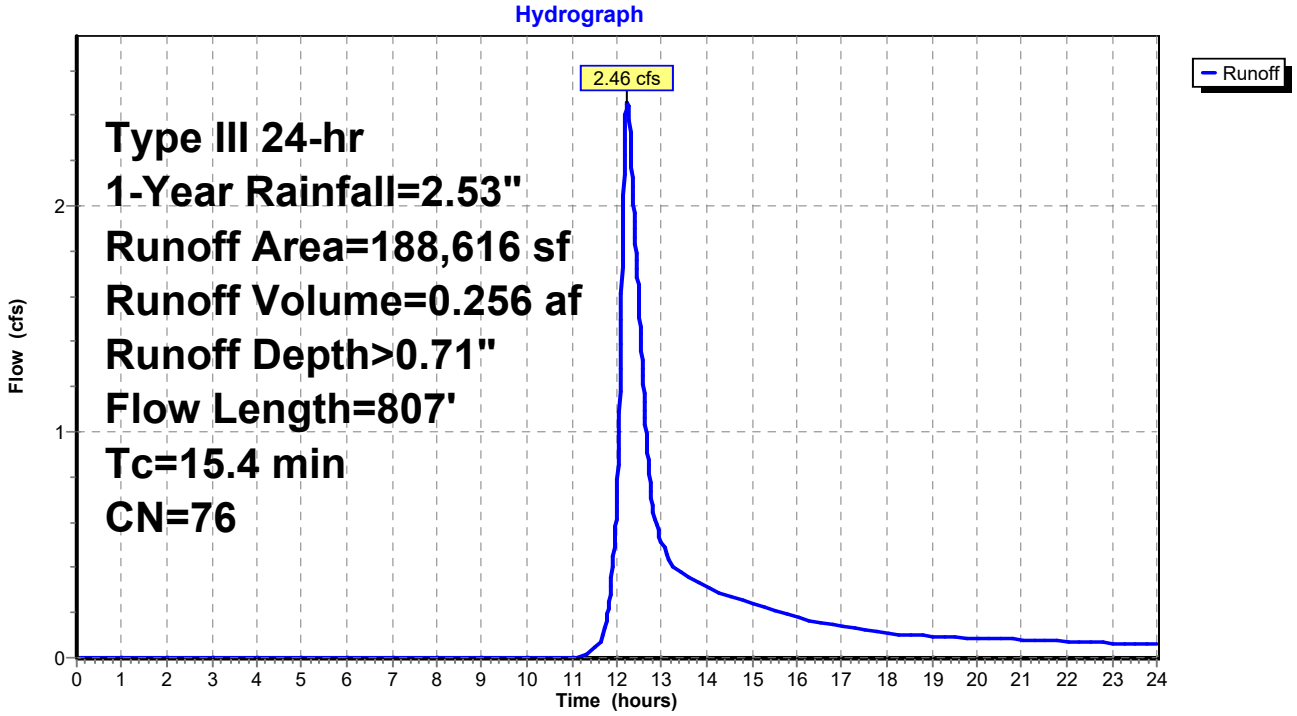
Runoff = 2.46 cfs @ 12.23 hrs, Volume= 0.256 af, Depth> 0.71"
Routed to Link EDP-1 : EDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (sf)	CN	Description
82,914	98	Paved parking, HSG B
41,960	55	Woods, Good, HSG B
63,742	61	>75% Grass cover, Good, HSG B
188,616	76	Weighted Average
105,702		56.04% Pervious Area
82,914		43.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.0650	0.27		**Sheet Flow, grass: short** Grass: Short n= 0.150 P2= 3.15"
2.2	168	0.0060	1.25		**Shallow Concentrated Flow, unpaved** Unpaved Kv= 16.1 fps
6.7	325	0.0500	0.81	0.19	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.10' Z= 5.0 & 2.0 '/' Top.W=2.70' n= 0.080 Earth, long dense weeds
0.3	214	0.0200	11.03	34.66	**Pipe Channel, RCP_Round 24"** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
15.4	807	Total			

Subcatchment WS-1: WS-1

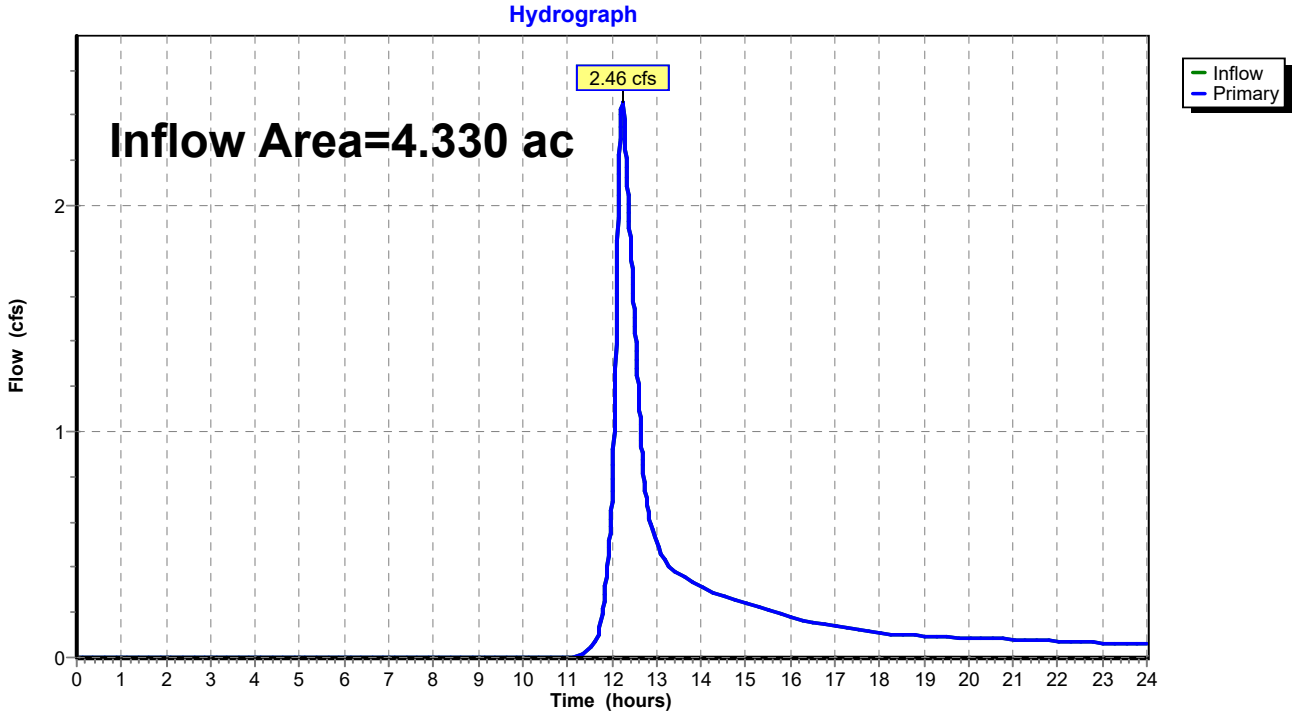


Summary for Link EDP-1: EDP-1

Inflow Area = 4.330 ac, 43.96% Impervious, Inflow Depth > 0.71" for 1-Year event
Inflow = 2.46 cfs @ 12.23 hrs, Volume= 0.256 af
Primary = 2.46 cfs @ 12.23 hrs, Volume= 0.256 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link EDP-1: EDP-1



Summary for Subcatchment WS-1: WS-1

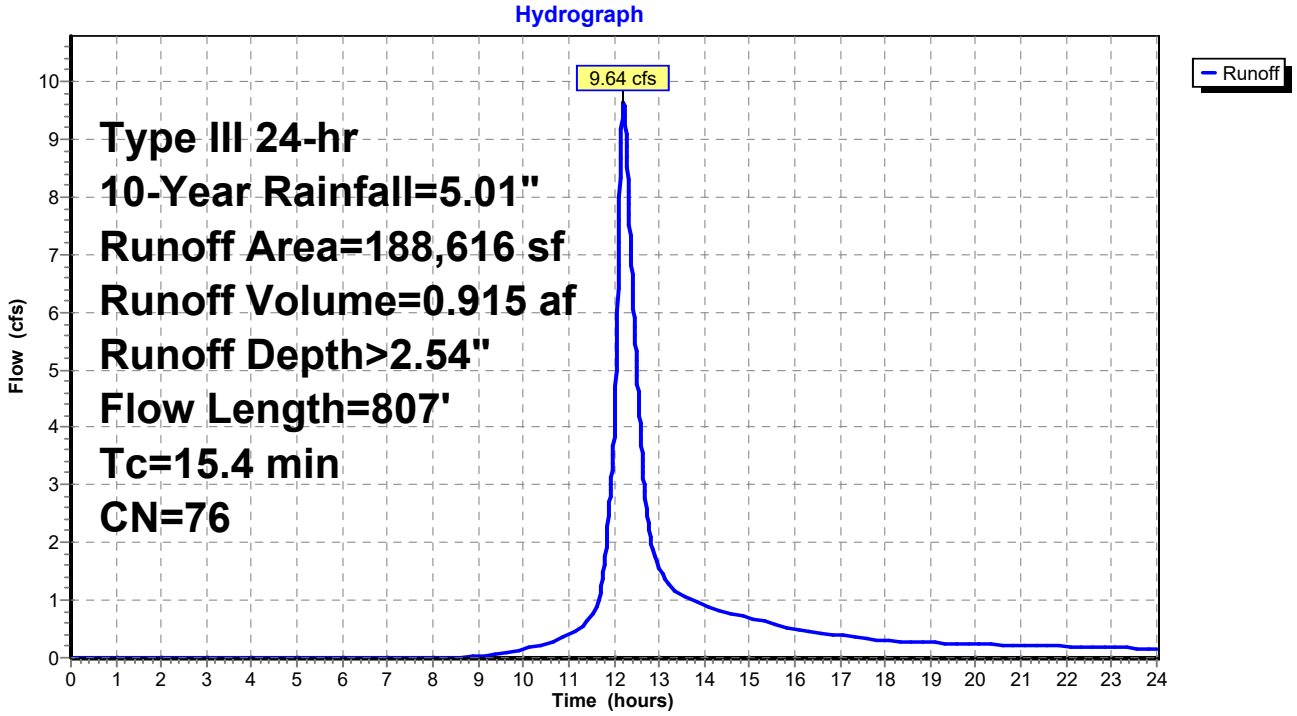
Runoff = 9.64 cfs @ 12.21 hrs, Volume= 0.915 af, Depth> 2.54"
Routed to Link EDP-1 : EDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (sf)	CN	Description
82,914	98	Paved parking, HSG B
41,960	55	Woods, Good, HSG B
63,742	61	>75% Grass cover, Good, HSG B
188,616	76	Weighted Average
105,702		56.04% Pervious Area
82,914		43.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.0650	0.27		**Sheet Flow, grass: short** Grass: Short n= 0.150 P2= 3.15"
2.2	168	0.0060	1.25		**Shallow Concentrated Flow, unpaved** Unpaved Kv= 16.1 fps
6.7	325	0.0500	0.81	0.19	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.10' Z= 5.0 & 2.0 '/' Top.W=2.70' n= 0.080 Earth, long dense weeds
0.3	214	0.0200	11.03	34.66	**Pipe Channel, RCP_Round 24"** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
15.4	807	Total			

Subcatchment WS-1: WS-1

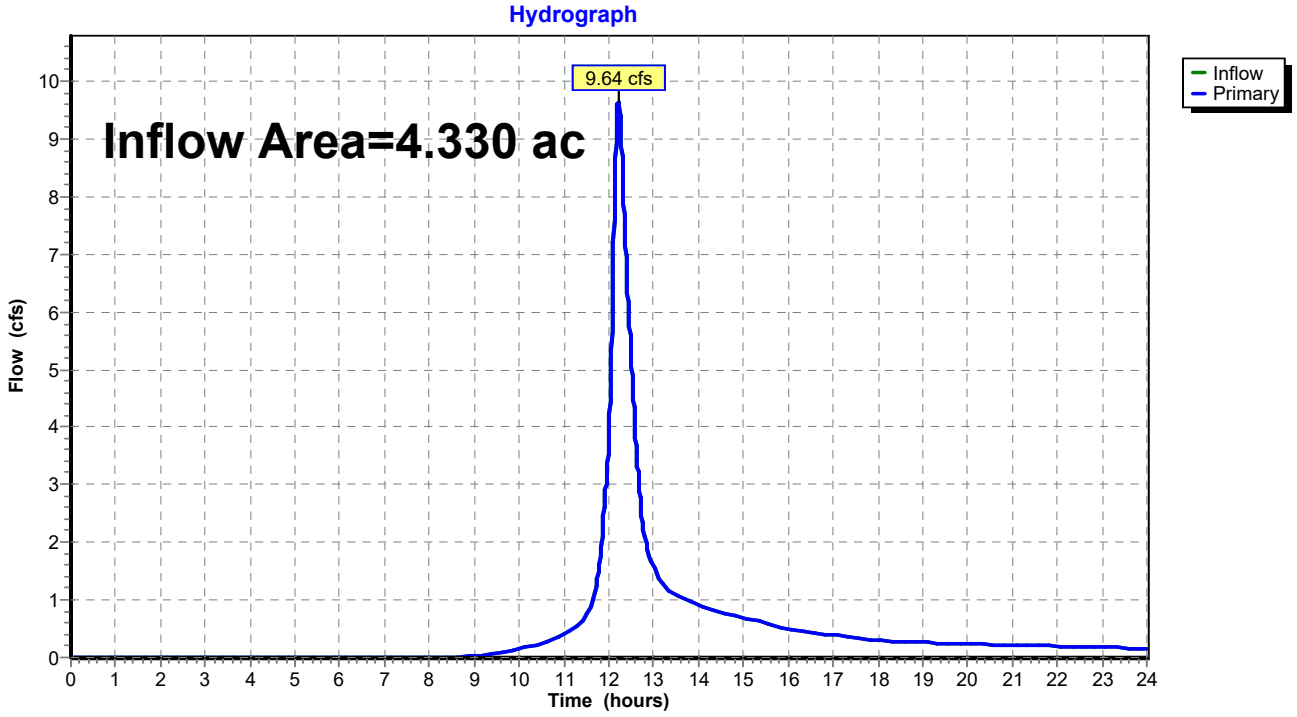


Summary for Link EDP-1: EDP-1

Inflow Area = 4.330 ac, 43.96% Impervious, Inflow Depth > 2.54" for 10-Year event
Inflow = 9.64 cfs @ 12.21 hrs, Volume= 0.915 af
Primary = 9.64 cfs @ 12.21 hrs, Volume= 0.915 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link EDP-1: EDP-1



Summary for Subcatchment WS-1: WS-1

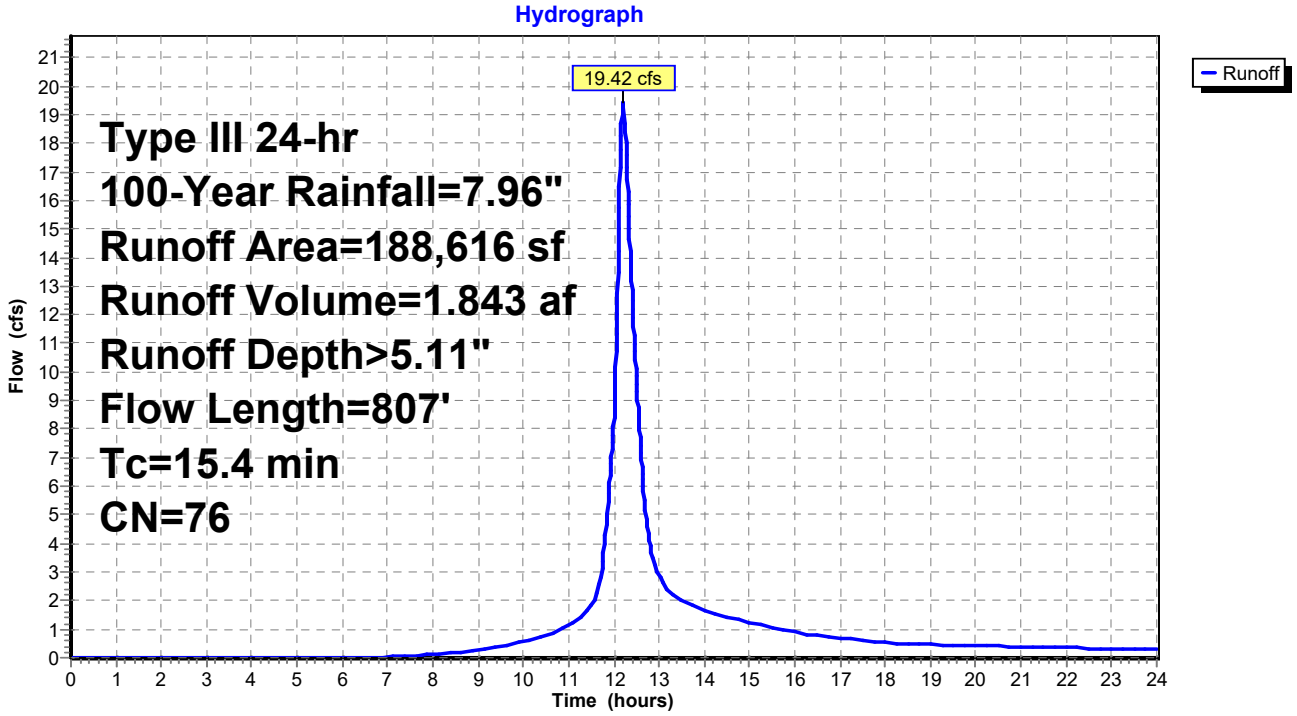
Runoff = 19.42 cfs @ 12.20 hrs, Volume= 1.843 af, Depth> 5.11"
Routed to Link EDP-1 : EDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (sf)	CN	Description
82,914	98	Paved parking, HSG B
41,960	55	Woods, Good, HSG B
63,742	61	>75% Grass cover, Good, HSG B
188,616	76	Weighted Average
105,702		56.04% Pervious Area
82,914		43.96% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.2	100	0.0650	0.27		**Sheet Flow, grass: short** Grass: Short n= 0.150 P2= 3.15"
2.2	168	0.0060	1.25		**Shallow Concentrated Flow, unpaved** Unpaved Kv= 16.1 fps
6.7	325	0.0500	0.81	0.19	**Trap/Vee/Rect Channel Flow,** Bot.W=2.00' D=0.10' Z= 5.0 & 2.0 '/' Top.W=2.70' n= 0.080 Earth, long dense weeds
0.3	214	0.0200	11.03	34.66	**Pipe Channel, RCP_Round 24"** 24.0" Round Area= 3.1 sf Perim= 6.3' r= 0.50' n= 0.012 Concrete pipe, finished
15.4	807	Total			

Subcatchment WS-1: WS-1

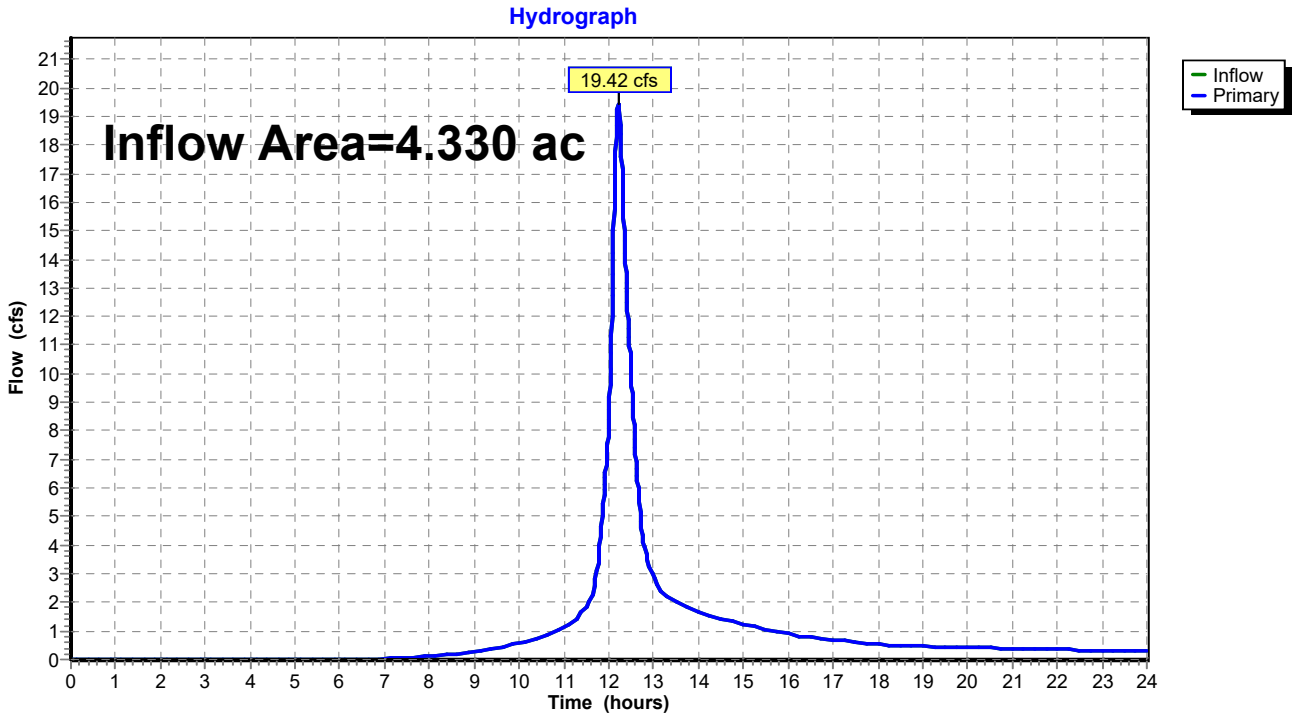


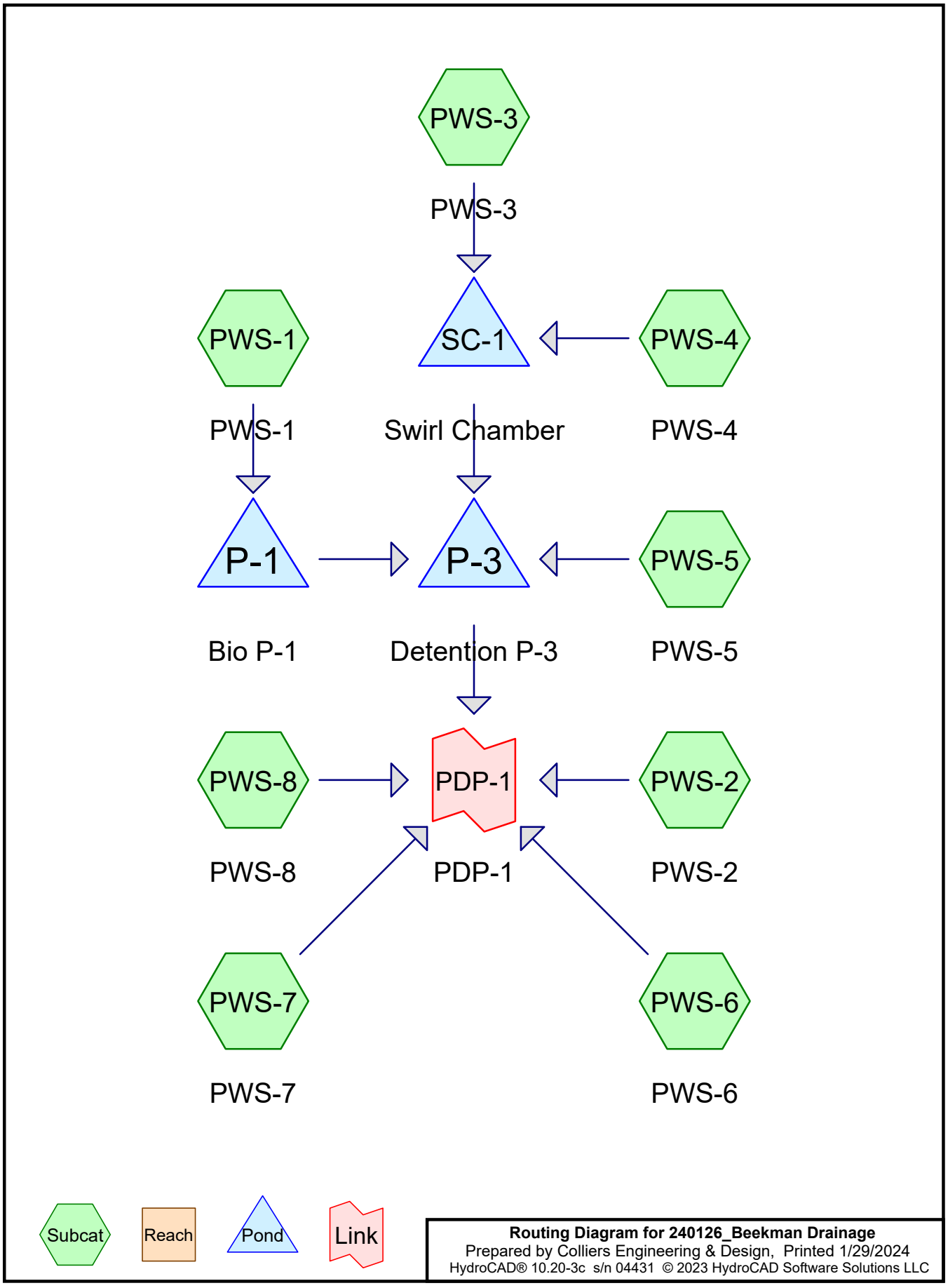
Summary for Link EDP-1: EDP-1

Inflow Area = 4.330 ac, 43.96% Impervious, Inflow Depth > 5.11" for 100-Year event
Inflow = 19.42 cfs @ 12.20 hrs, Volume= 1.843 af
Primary = 19.42 cfs @ 12.20 hrs, Volume= 1.843 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link EDP-1: EDP-1




PWS-3
PWS-3
PWS-1
SC-1
PWS-4
PWS-1
Swirl Chamber
PWS-4
P-1
P-3
PWS-5
Bio P-1
Detention P-3
PWS-5
PWS-8
PDP-1
PWS-2
PWS-8
PDP-1
PWS-2
PWS-7
PWS-6
PWS-7
PWS-6
Subcat
Reach
Pond
Link
Routing Diagram for 240126_Beekman Drainage
Prepared by Colliers Engineering & Design, Printed 1/29/2024
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Summary for Subcatchment PWS-1: PWS-1

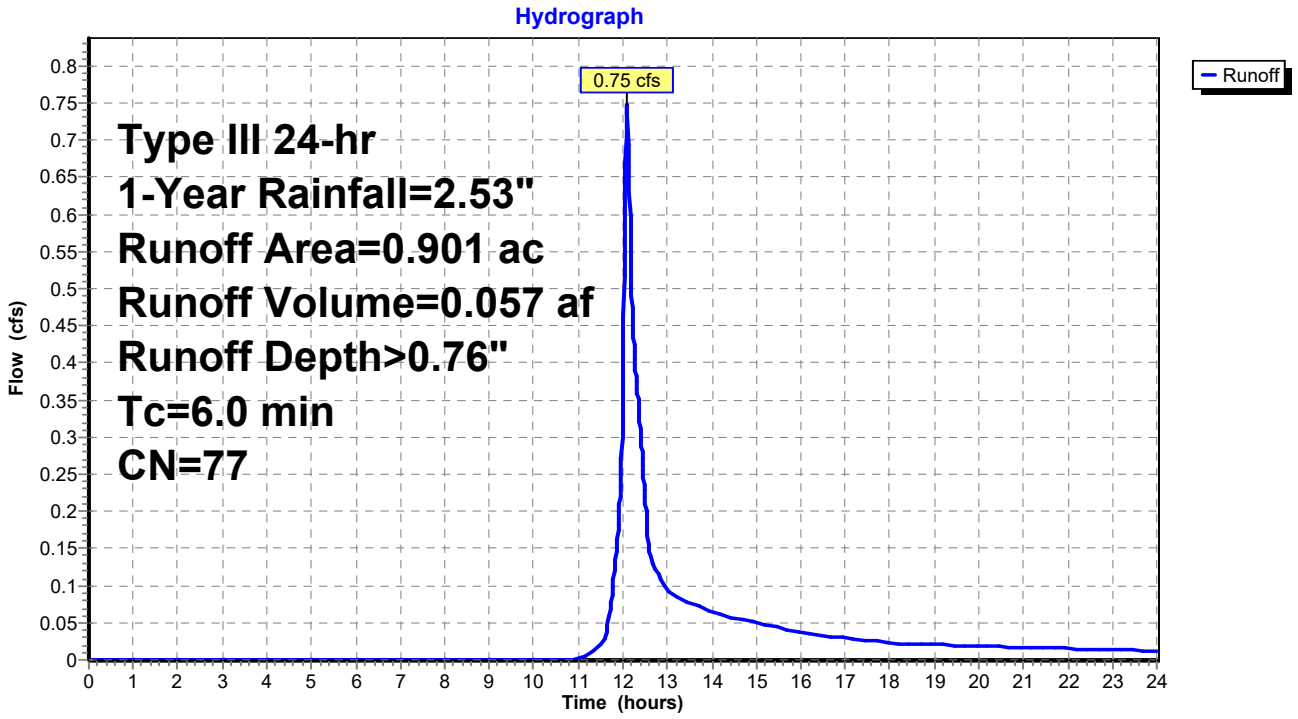
Runoff = 0.75 cfs @ 12.10 hrs, Volume= 0.057 af, Depth> 0.76"
Routed to Pond P-1 : Bio P-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (ac)	CN	Description
0.393	98	Paved parking, HSG B
0.448	61	>75% Grass cover, Good, HSG B
0.060	55	Woods, Good, HSG B
0.901	77	Weighted Average
0.508		56.38% Pervious Area
0.393		43.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-1: PWS-1



Summary for Subcatchment PWS-2: PWS-2

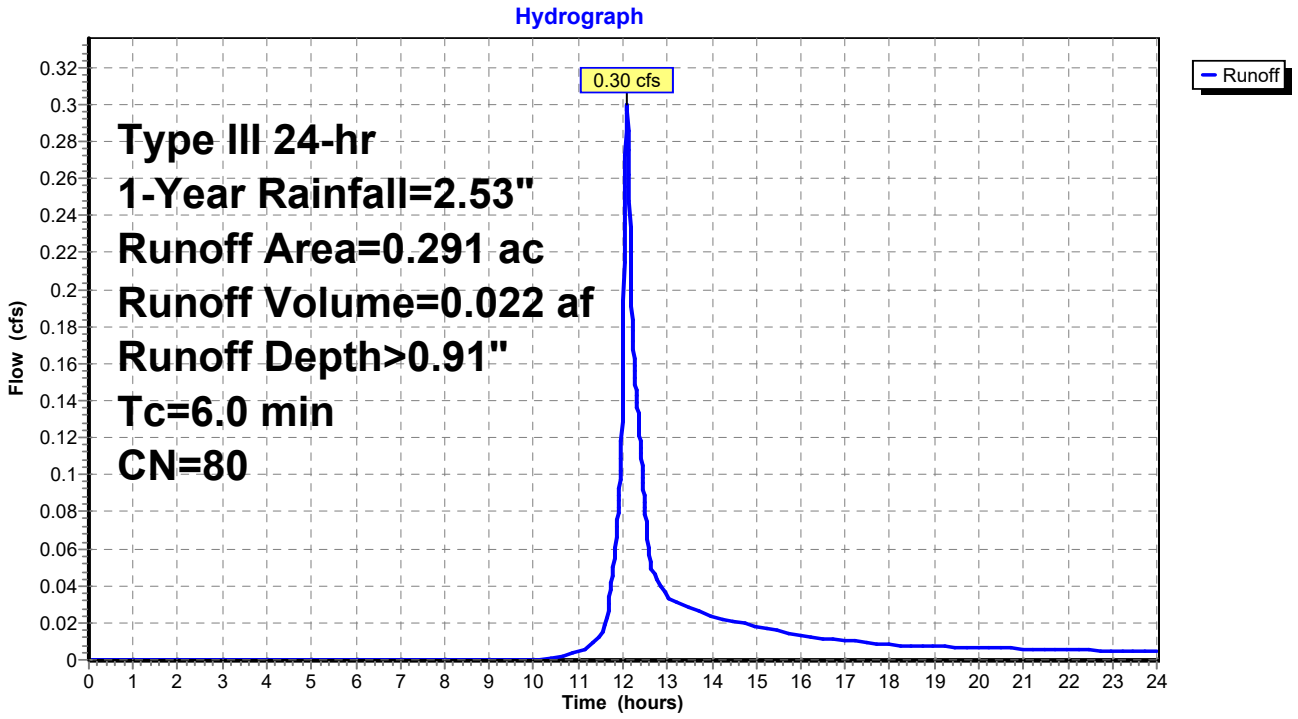
Runoff = 0.30 cfs @ 12.09 hrs, Volume= 0.022 af, Depth> 0.91"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (ac)	CN	Description
0.150	98	Paved parking, HSG B
0.115	61	>75% Grass cover, Good, HSG B
0.026	55	Woods, Good, HSG B
0.291	80	Weighted Average
0.141		48.45% Pervious Area
0.150		51.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-2: PWS-2



Summary for Subcatchment PWS-3: PWS-3

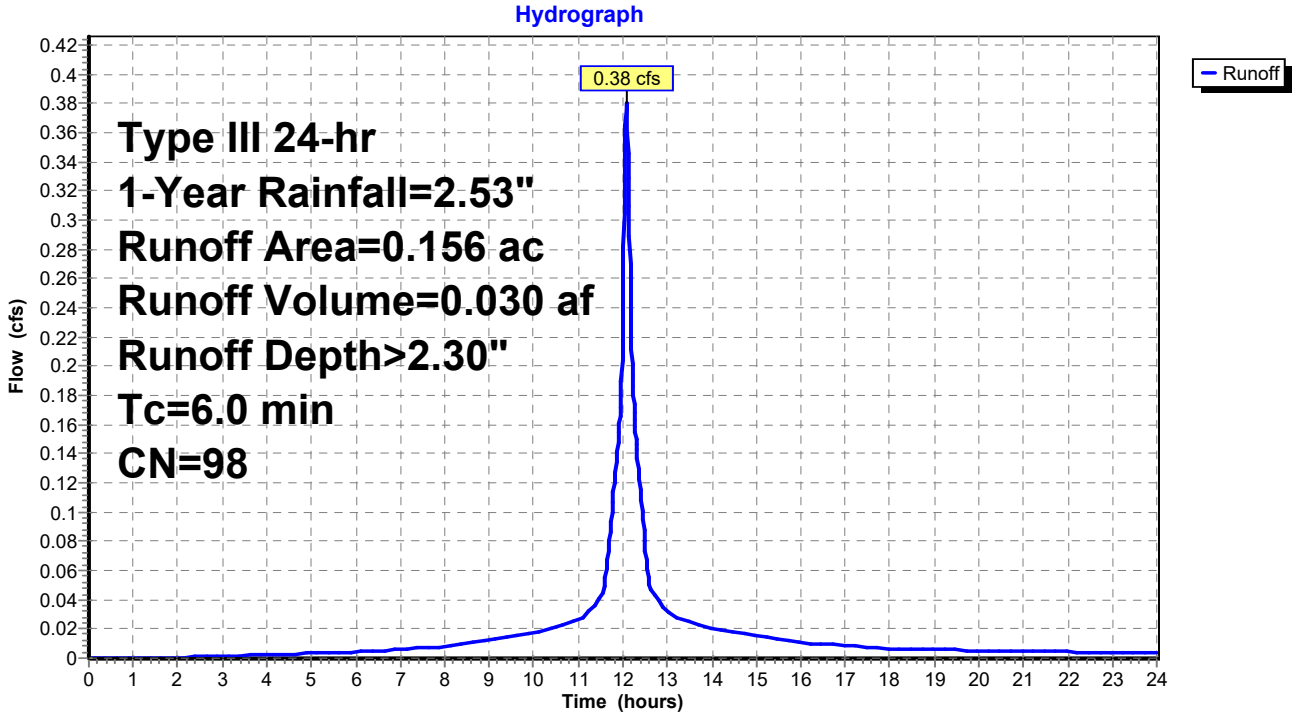
Runoff = 0.38 cfs @ 12.08 hrs, Volume= 0.030 af, Depth> 2.30"
Routed to Pond SC-1 : Swirl Chamber

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (ac)	CN	Description
0.156	98	Roofs, HSG B
0.156		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-3: PWS-3



Summary for Subcatchment PWS-4: PWS-4

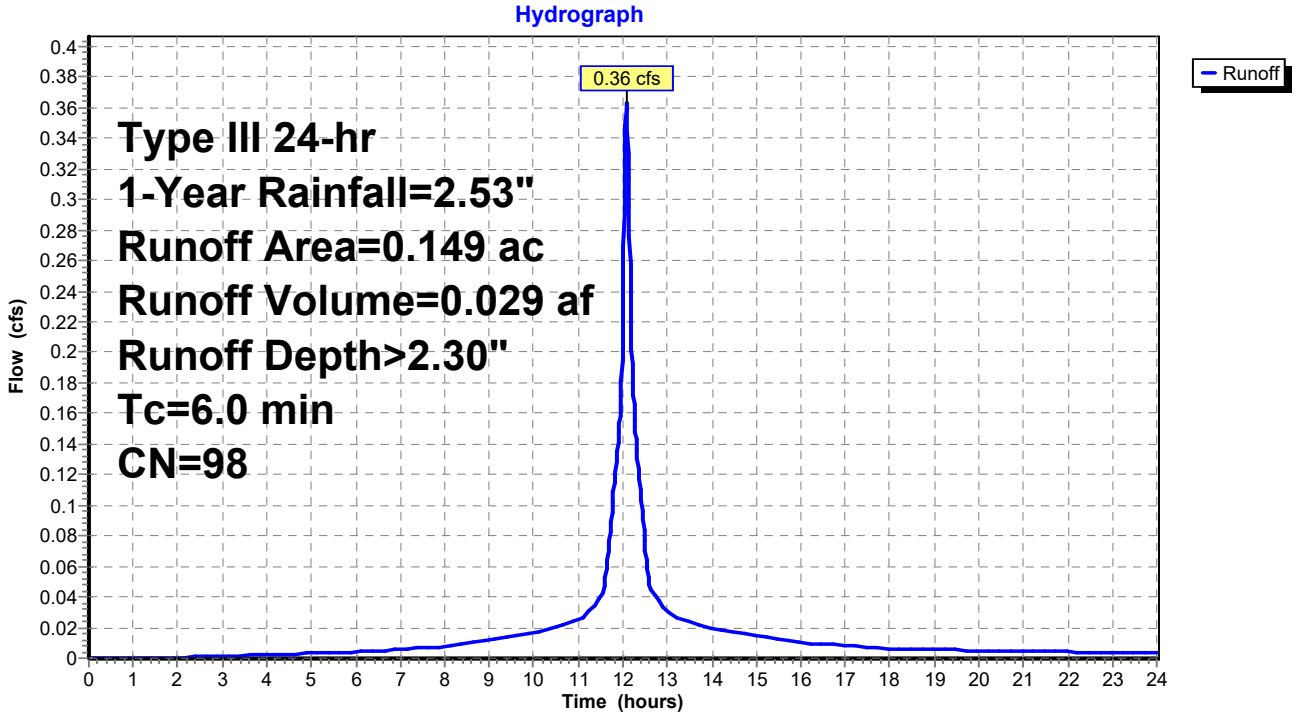
Runoff = 0.36 cfs @ 12.08 hrs, Volume= 0.029 af, Depth> 2.30"
Routed to Pond SC-1 : Swirl Chamber

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (ac)	CN	Description
0.149	98	Roofs, HSG B
0.149		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-4: PWS-4



Summary for Subcatchment PWS-5: PWS-5

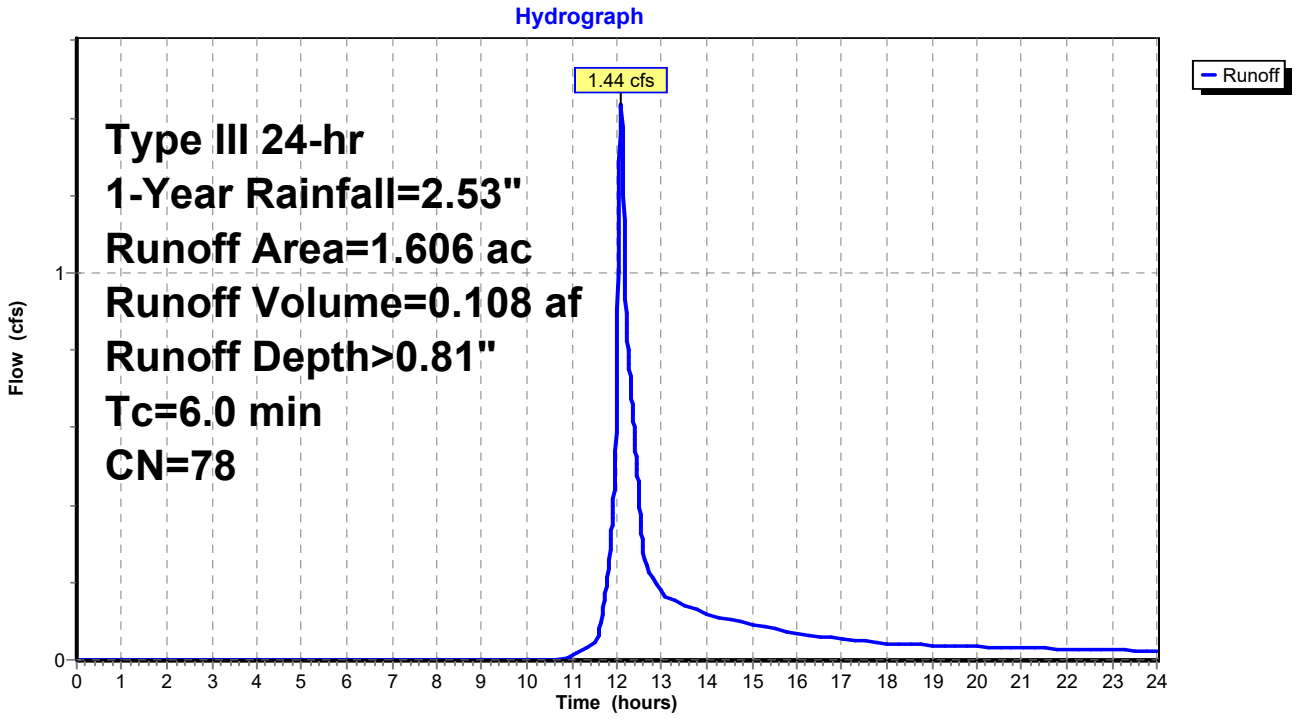
Runoff = 1.44 cfs @ 12.10 hrs, Volume= 0.108 af, Depth> 0.81"
Routed to Pond P-3 : Detention P-3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (ac)	CN	Description
0.772	98	Paved parking, HSG B
0.662	61	>75% Grass cover, Good, HSG B
0.172	55	Woods, Good, HSG B
1.606	78	Weighted Average
0.834		51.93% Pervious Area
0.772		48.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-5: PWS-5



Summary for Subcatchment PWS-6: PWS-6

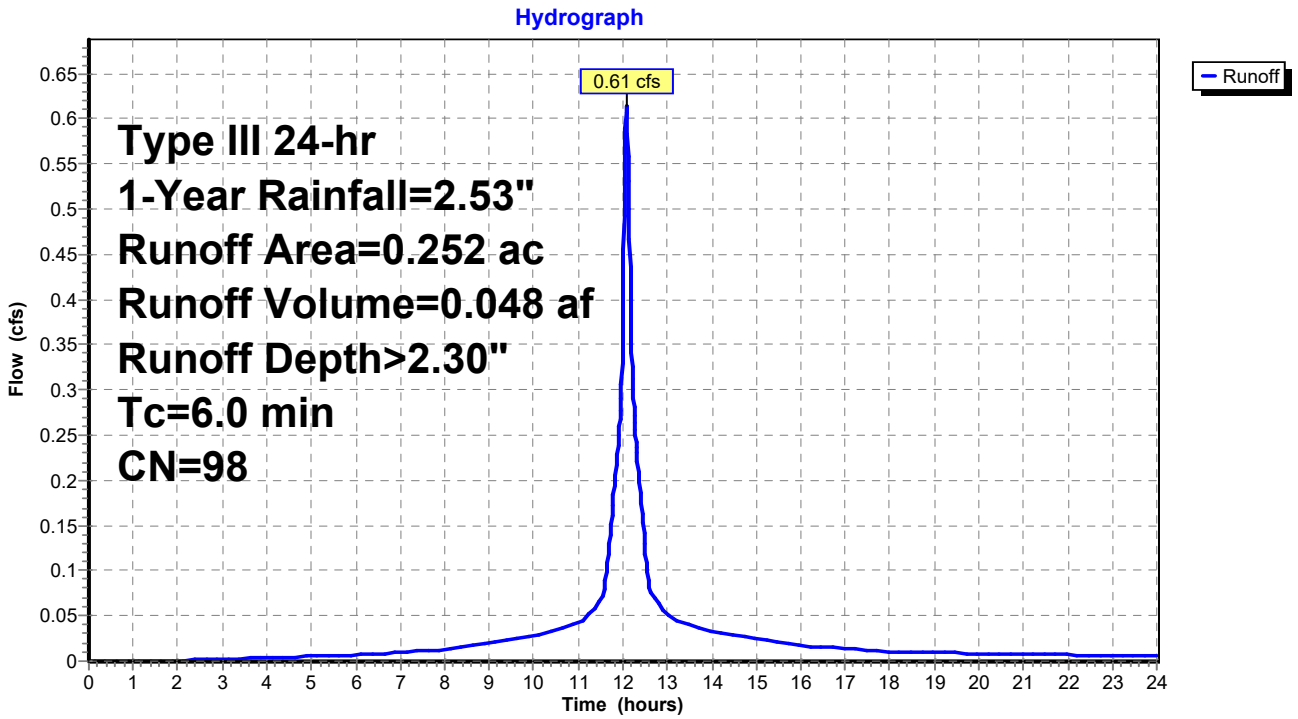
Runoff = 0.61 cfs @ 12.08 hrs, Volume= 0.048 af, Depth> 2.30"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (ac)	CN	Description
0.252	98	Roofs, HSG B
0.252		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-6: PWS-6



Summary for Subcatchment PWS-7: PWS-7

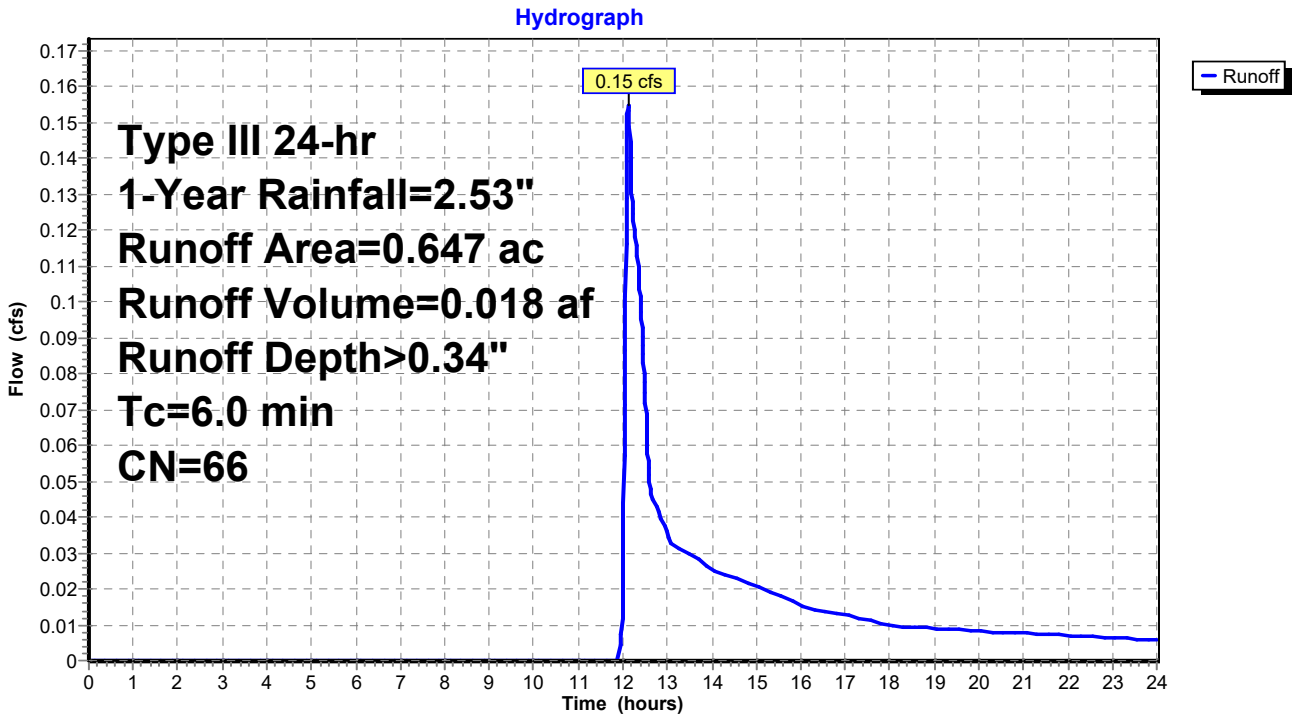
Runoff = 0.15 cfs @ 12.12 hrs, Volume= 0.018 af, Depth> 0.34"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (ac)	CN	Description
0.080	98	Paved parking, HSG B
0.567	61	>75% Grass cover, Good, HSG B
0.647	66	Weighted Average
0.567		87.64% Pervious Area
0.080		12.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-7: PWS-7



Summary for Subcatchment PWS-8: PWS-8

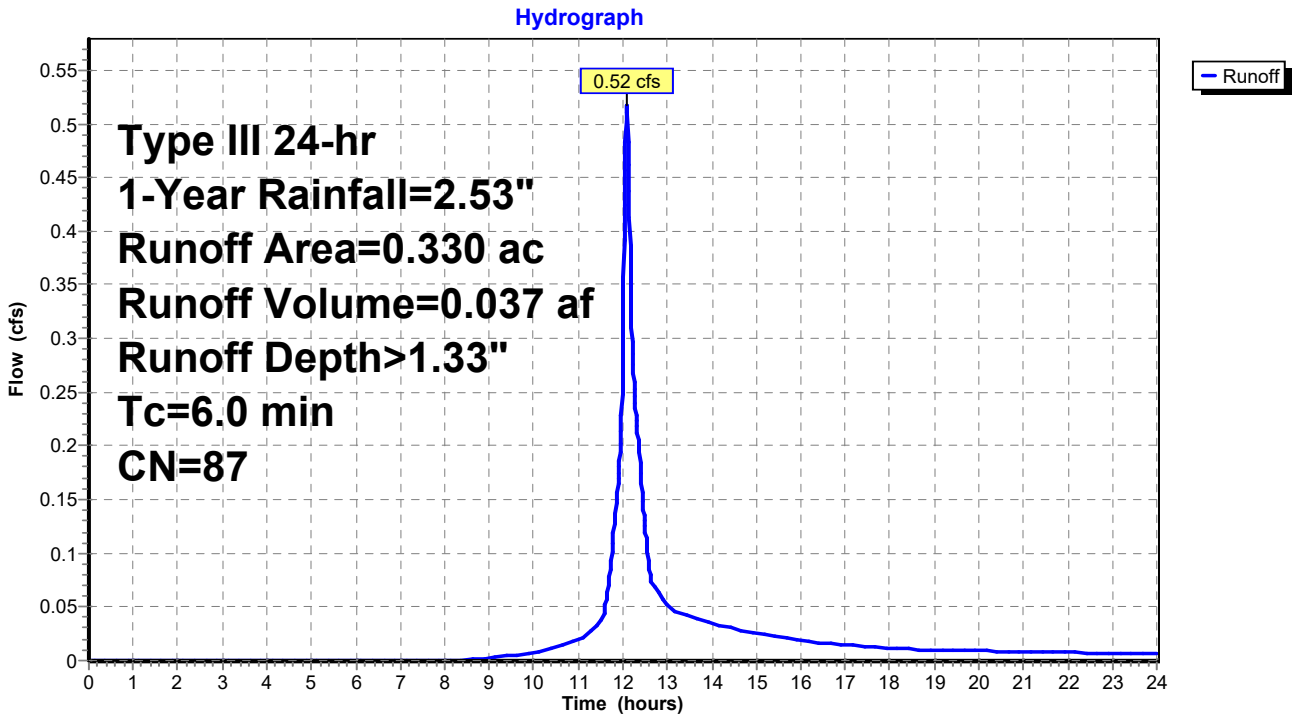
Runoff = 0.52 cfs @ 12.09 hrs, Volume= 0.037 af, Depth> 1.33"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 1-Year Rainfall=2.53"

Area (ac)	CN	Description
0.235	98	Paved parking, HSG B
0.095	61	>75% Grass cover, Good, HSG B
0.330	87	Weighted Average
0.095		28.79% Pervious Area
0.235		71.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-8: PWS-8



Summary for Pond P-1: Bio P-1

Inflow Area = 0.901 ac, 43.62% Impervious, Inflow Depth > 0.76" for 1-Year event
Inflow = 0.75 cfs @ 12.10 hrs, Volume= 0.057 af
Outflow = 0.08 cfs @ 13.42 hrs, Volume= 0.031 af, Atten= 89%, Lag= 79.5 min
Primary = 0.08 cfs @ 13.42 hrs, Volume= 0.031 af
Routed to Pond P-3 : Detention P-3

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 101.56' @ 13.42 hrs Surf.Area= 2,523 sf Storage= 1,209 cf

Plug-Flow detention time= 254.6 min calculated for 0.031 af (55% of inflow)
Center-of-Mass det. time= 127.5 min (993.4 - 865.9)

Volume	Invert	Avail.Storage	Storage Description
#1	101.00'	6,493 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

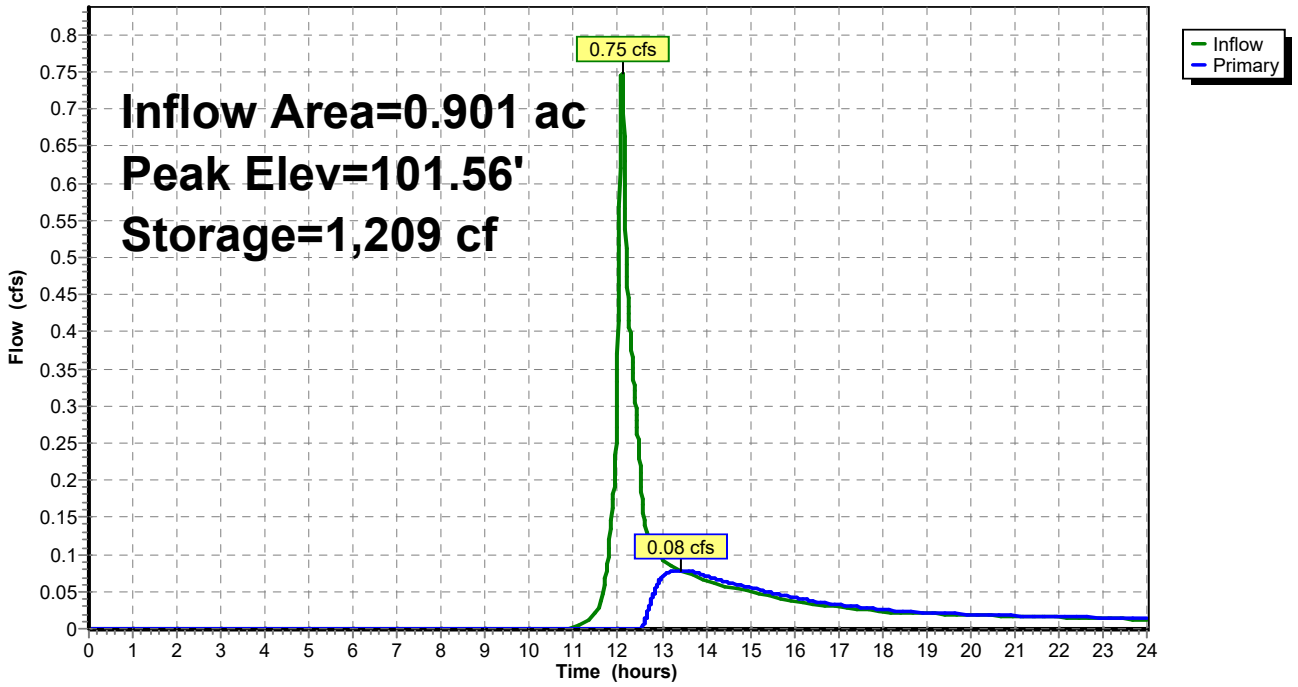
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
101.00	1,810	0	0
102.00	3,088	2,449	2,449
103.00	5,000	4,044	6,493

Device	Routing	Invert	Outlet Devices
#1	Primary	101.50'	**2.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	102.00'	**14.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.08 cfs @ 13.42 hrs HW=101.56' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 0.08 cfs @ 0.68 fps)
2=Broad-Crested Rectangular Weir (Controls 0.00 cfs)

Pond P-1: Bio P-1

Hydrograph



Summary for Pond P-3: Detention P-3

Inflow Area = 2.812 ac, 52.28% Impervious, Inflow Depth > 0.84" for 1-Year event
Inflow = 2.17 cfs @ 12.09 hrs, Volume= 0.198 af
Outflow = 0.89 cfs @ 12.36 hrs, Volume= 0.196 af, Atten= 59%, Lag= 15.9 min
Primary = 0.89 cfs @ 12.36 hrs, Volume= 0.196 af
Routed to Link PDP-1 : PDP-1

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 95.06' @ 12.36 hrs Surf.Area= 0.059 ac Storage= 0.033 af

Plug-Flow detention time= 24.7 min calculated for 0.195 af (99% of inflow)
Center-of-Mass det. time= 18.2 min (871.4 - 853.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	94.00'	0.084 af	**22.75'W x 113.25'L x 5.50'H Field A** 0.325 af Overall - 0.116 af Embedded = 0.210 af x 40.0% Voids
#2A	94.75'	0.116 af	**ADS_StormTech MC-3500 d +Cap**x 45 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 45 Chambers in 3 Rows Cap Storage= 14.9 cf x 2 x 3 rows = 89.4 cf
		0.200 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	94.00'	**18.0" Round Culvert** L= 45.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 94.00' / 93.50' S= 0.0111 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	94.00'	**4.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	95.00'	**22.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	97.75'	**24.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Device 1	99.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=0.89 cfs @ 12.36 hrs HW=95.06' (Free Discharge)
└**1=Culvert** (Passes 0.89 cfs of 4.69 cfs potential flow)
  ├**2=Orifice/Grate** (Orifice Controls 0.80 cfs @ 4.56 fps)
  ├**3=Orifice/Grate** (Orifice Controls 0.09 cfs @ 0.80 fps)
  ├**4=Orifice/Grate** (Controls 0.00 cfs)
  └**5=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Pond P-3: Detention P-3 - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= 14.9 cf x 2 x 3 rows = 89.4 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

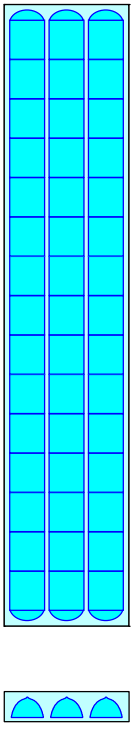
15 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 111.25' Row Length +12.0" End Stone x 2 = 113.25' Base Length
3 Rows x 77.0" Wide + 9.0" Spacing x 2 + 12.0" Side Stone x 2 = 22.75' Base Width
9.0" Stone Base + 45.0" Chamber Height + 12.0" Stone Cover = 5.50' Field Height

45 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 3 Rows = 5,037.2 cf Chamber Storage

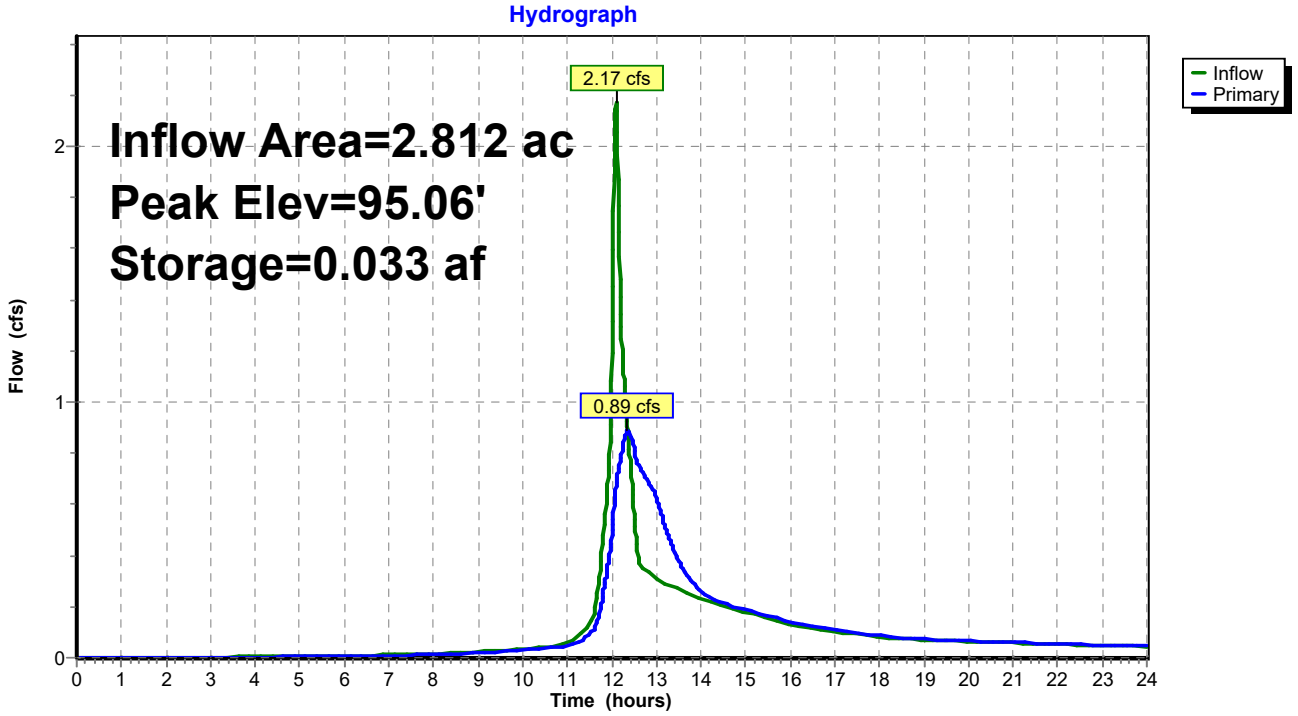
14,170.4 cf Field - 5,037.2 cf Chambers = 9,133.2 cf Stone x 40.0% Voids = 3,653.3 cf Stone Storage

Chamber Storage + Stone Storage = 8,690.5 cf = 0.200 af
Overall Storage Efficiency = 61.3%
Overall System Size = 113.25' x 22.75' x 5.50'

45 Chambers
524.8 cy Field
338.3 cy Stone



Pond P-3: Detention P-3

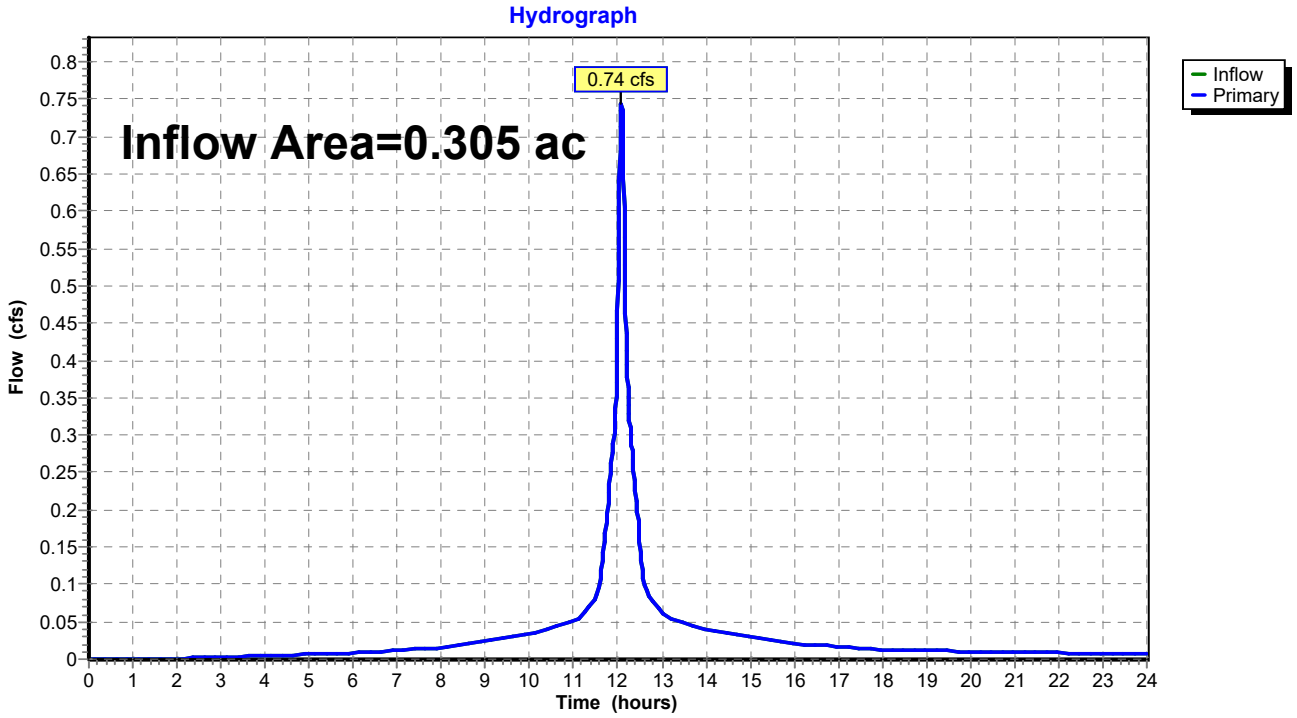


Summary for Pond SC-1: Swirl Chamber

Inflow Area = 0.305 ac,100.00% Impervious, Inflow Depth > 2.30" for 1-Year event
Inflow = 0.74 cfs @ 12.08 hrs, Volume= 0.058 af
Primary = 0.74 cfs @ 12.08 hrs, Volume= 0.058 af, Atten= 0%, Lag= 0.0 min
Routed to Pond P-3 : Detention P-3

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Pond SC-1: Swirl Chamber

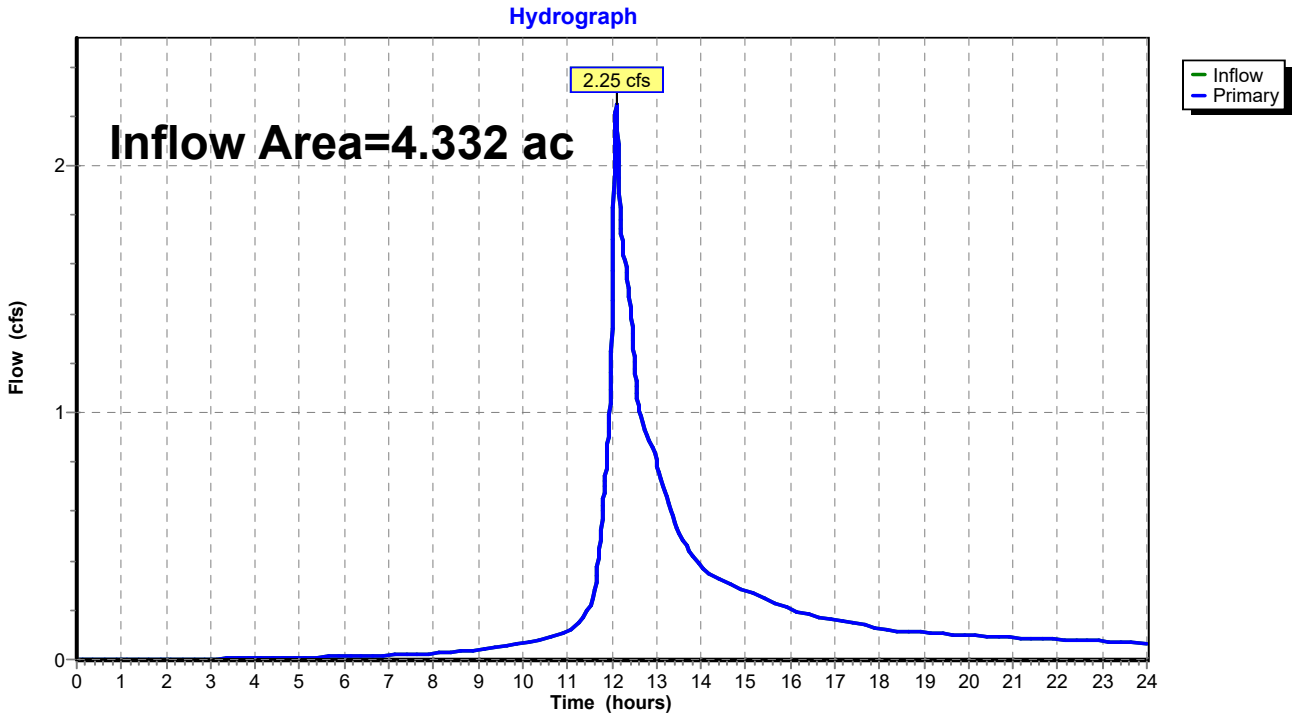


Summary for Link PDP-1: PDP-1

Inflow Area = 4.332 ac, 50.48% Impervious, Inflow Depth > 0.89" for 1-Year event
Inflow = 2.25 cfs @ 12.10 hrs, Volume= 0.321 af
Primary = 2.25 cfs @ 12.10 hrs, Volume= 0.321 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link PDP-1: PDP-1



Summary for Subcatchment PWS-1: PWS-1

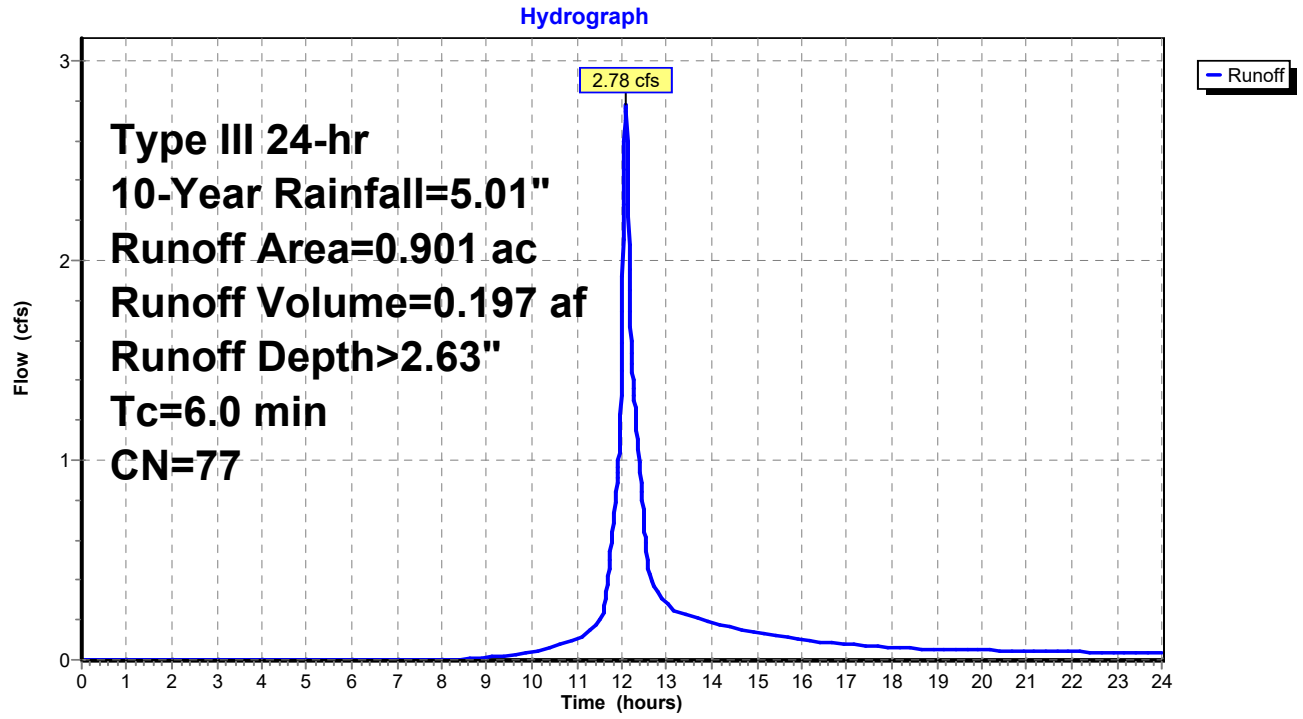
Runoff = 2.78 cfs @ 12.09 hrs, Volume= 0.197 af, Depth> 2.63"
Routed to Pond P-1 : Bio P-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (ac)	CN	Description
0.393	98	Paved parking, HSG B
0.448	61	>75% Grass cover, Good, HSG B
0.060	55	Woods, Good, HSG B
0.901	77	Weighted Average
0.508		56.38% Pervious Area
0.393		43.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-1: PWS-1



Summary for Subcatchment PWS-2: PWS-2

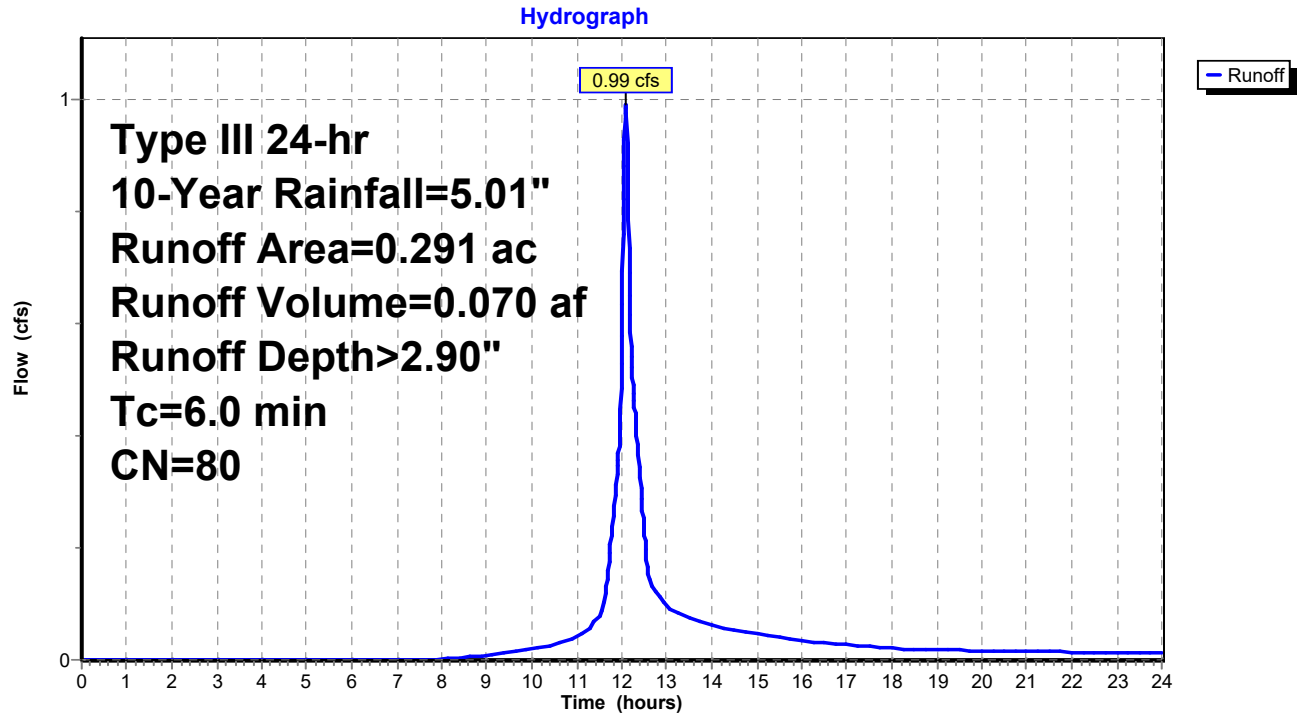
Runoff = 0.99 cfs @ 12.09 hrs, Volume= 0.070 af, Depth> 2.90"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (ac)	CN	Description
0.150	98	Paved parking, HSG B
0.115	61	>75% Grass cover, Good, HSG B
0.026	55	Woods, Good, HSG B
0.291	80	Weighted Average
0.141		48.45% Pervious Area
0.150		51.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-2: PWS-2



Summary for Subcatchment PWS-3: PWS-3

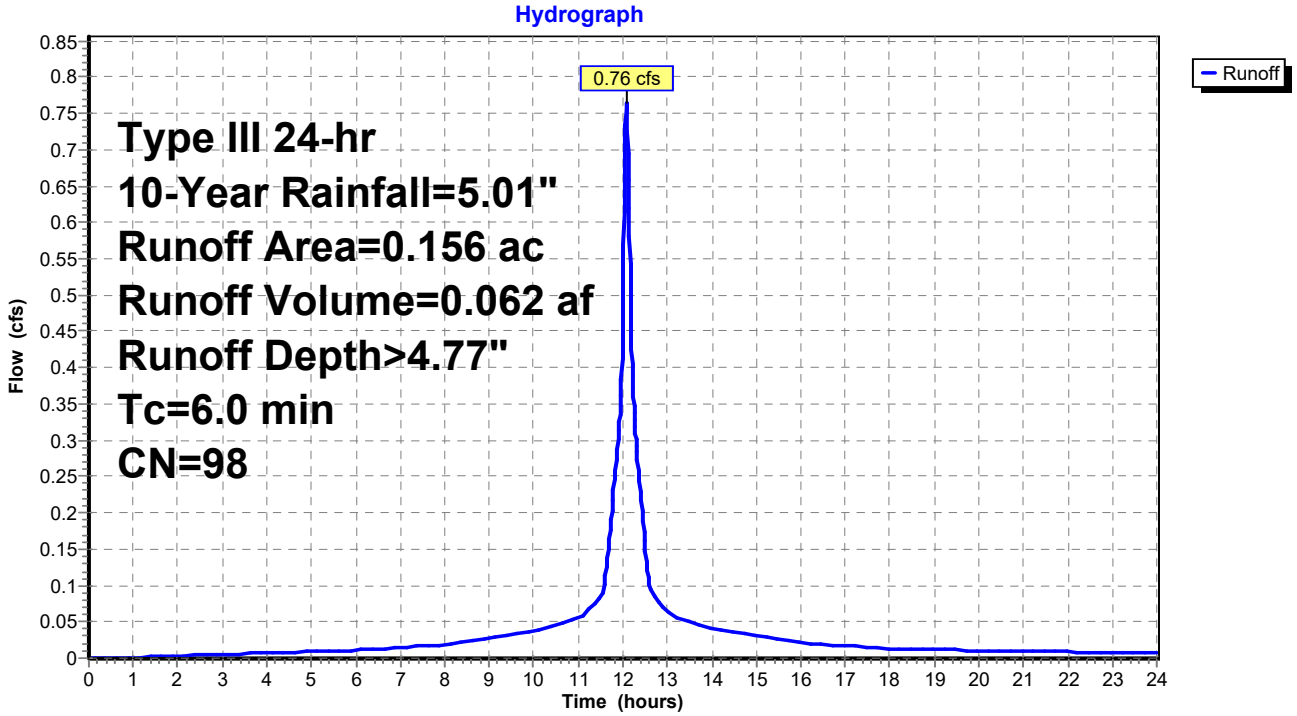
Runoff = 0.76 cfs @ 12.08 hrs, Volume= 0.062 af, Depth> 4.77"
Routed to Pond SC-1 : Swirl Chamber

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (ac)	CN	Description
0.156	98	Roofs, HSG B
0.156		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-3: PWS-3



Summary for Subcatchment PWS-4: PWS-4

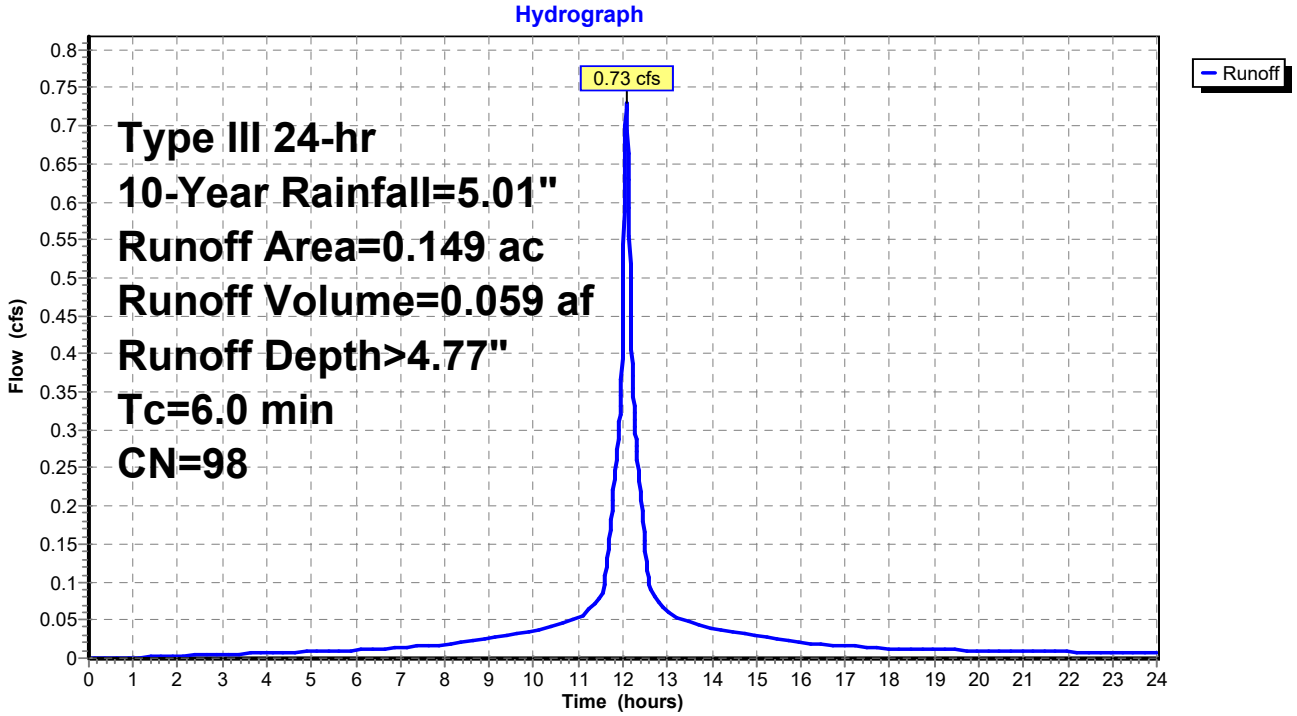
Runoff = 0.73 cfs @ 12.08 hrs, Volume= 0.059 af, Depth> 4.77"
Routed to Pond SC-1 : Swirl Chamber

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (ac)	CN	Description
0.149	98	Roofs, HSG B
0.149		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-4: PWS-4



Summary for Subcatchment PWS-5: PWS-5

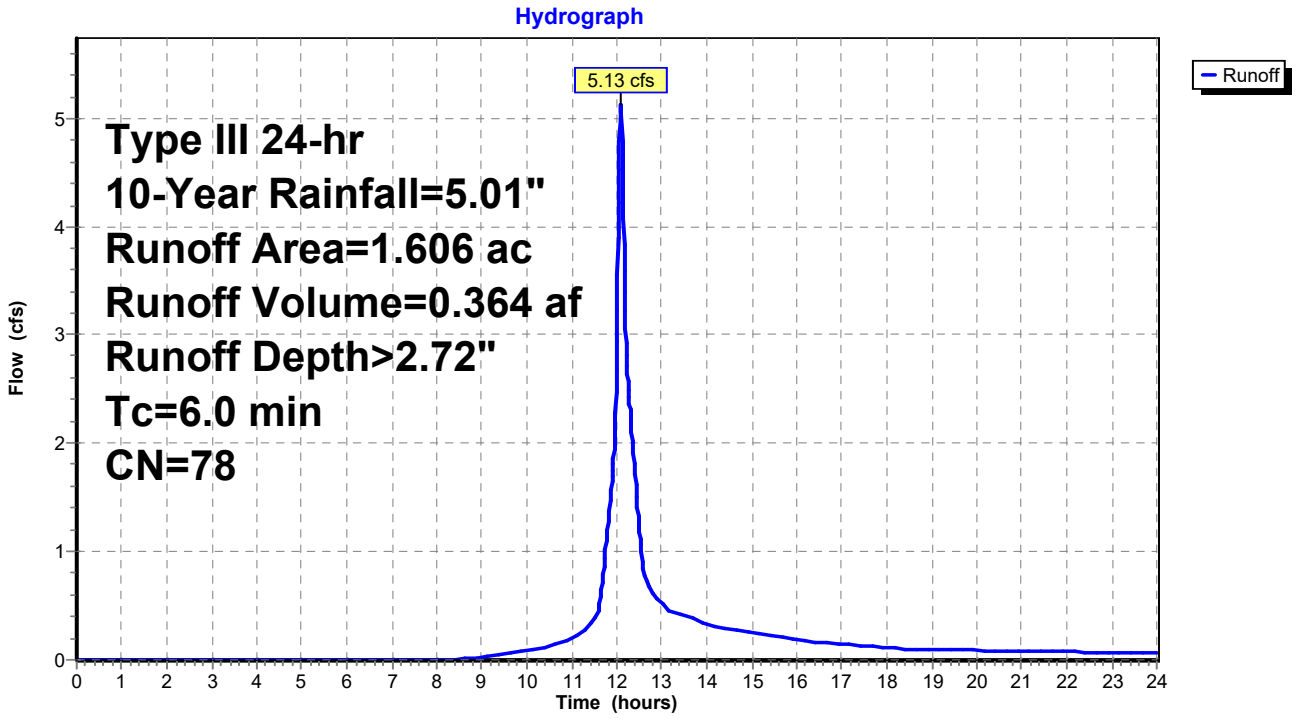
Runoff = 5.13 cfs @ 12.09 hrs, Volume= 0.364 af, Depth> 2.72"
Routed to Pond P-3 : Detention P-3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (ac)	CN	Description
0.772	98	Paved parking, HSG B
0.662	61	>75% Grass cover, Good, HSG B
0.172	55	Woods, Good, HSG B
1.606	78	Weighted Average
0.834		51.93% Pervious Area
0.772		48.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-5: PWS-5



Summary for Subcatchment PWS-6: PWS-6

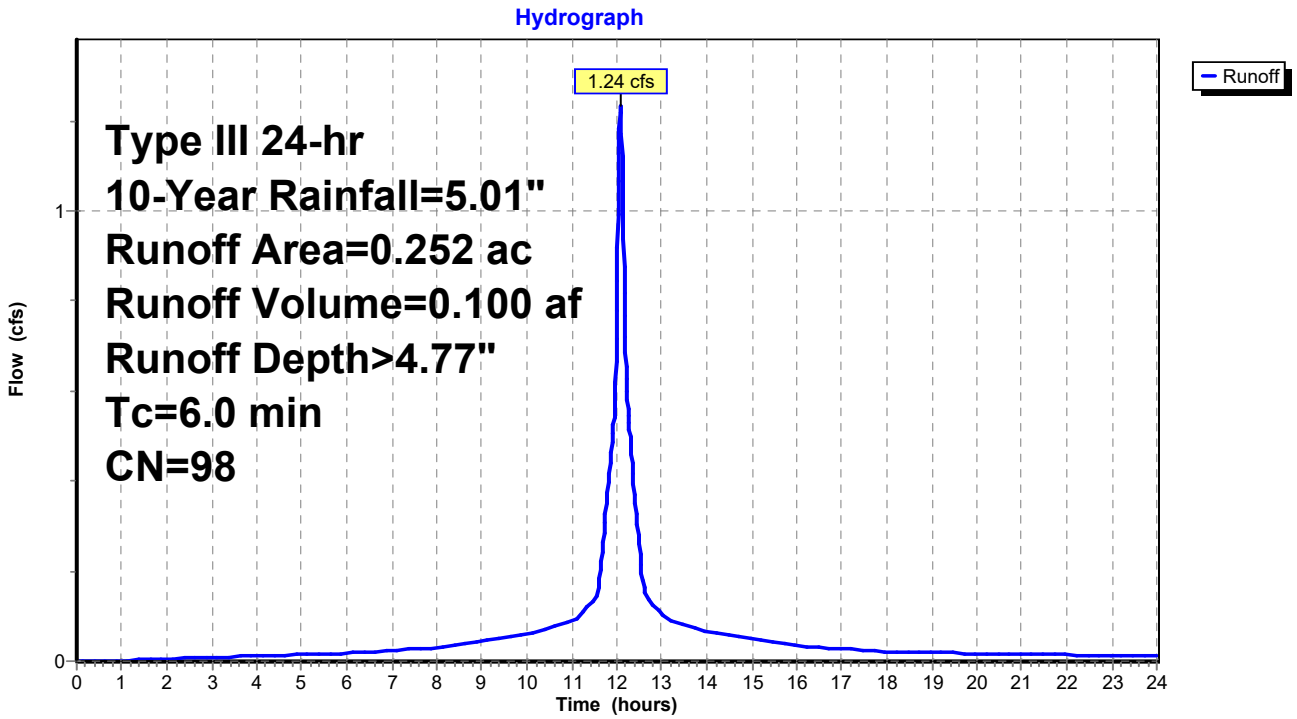
Runoff = 1.24 cfs @ 12.08 hrs, Volume= 0.100 af, Depth> 4.77"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (ac)	CN	Description
0.252	98	Roofs, HSG B
0.252		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-6: PWS-6



Summary for Subcatchment PWS-7: PWS-7

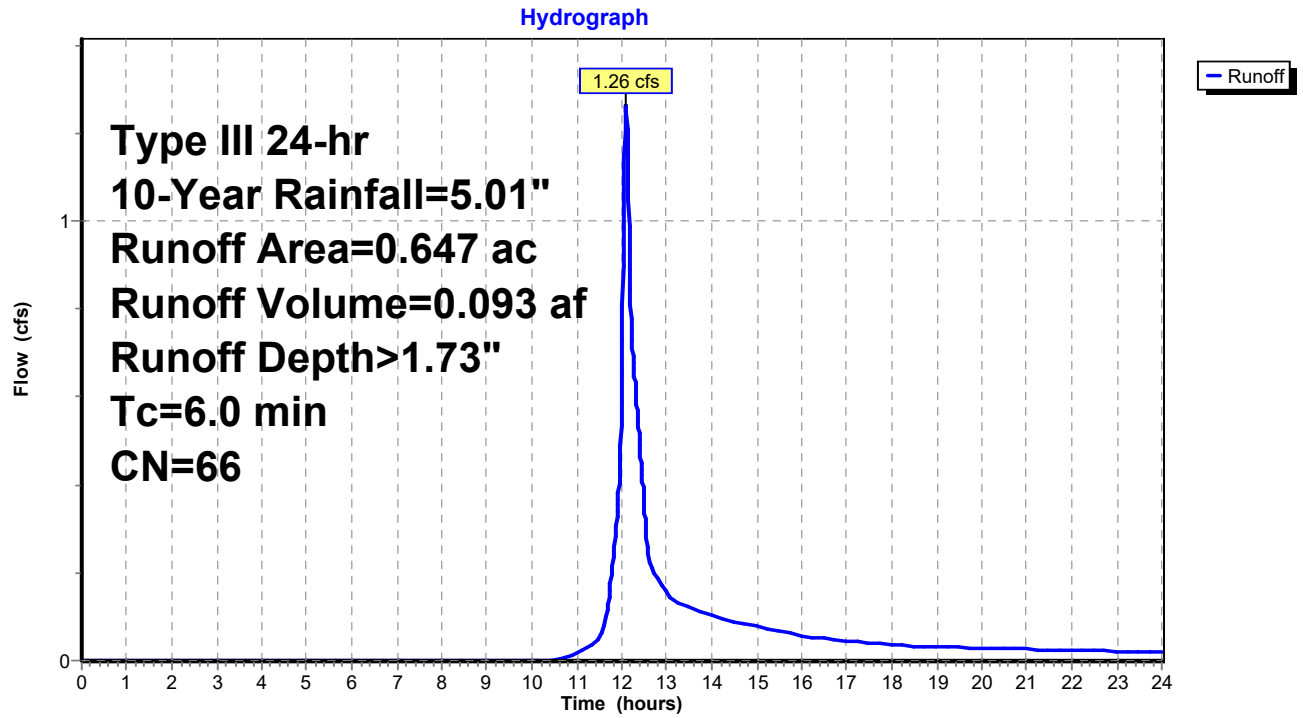
Runoff = 1.26 cfs @ 12.09 hrs, Volume= 0.093 af, Depth> 1.73"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (ac)	CN	Description
0.080	98	Paved parking, HSG B
0.567	61	>75% Grass cover, Good, HSG B
0.647	66	Weighted Average
0.567		87.64% Pervious Area
0.080		12.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-7: PWS-7



Summary for Subcatchment PWS-8: PWS-8

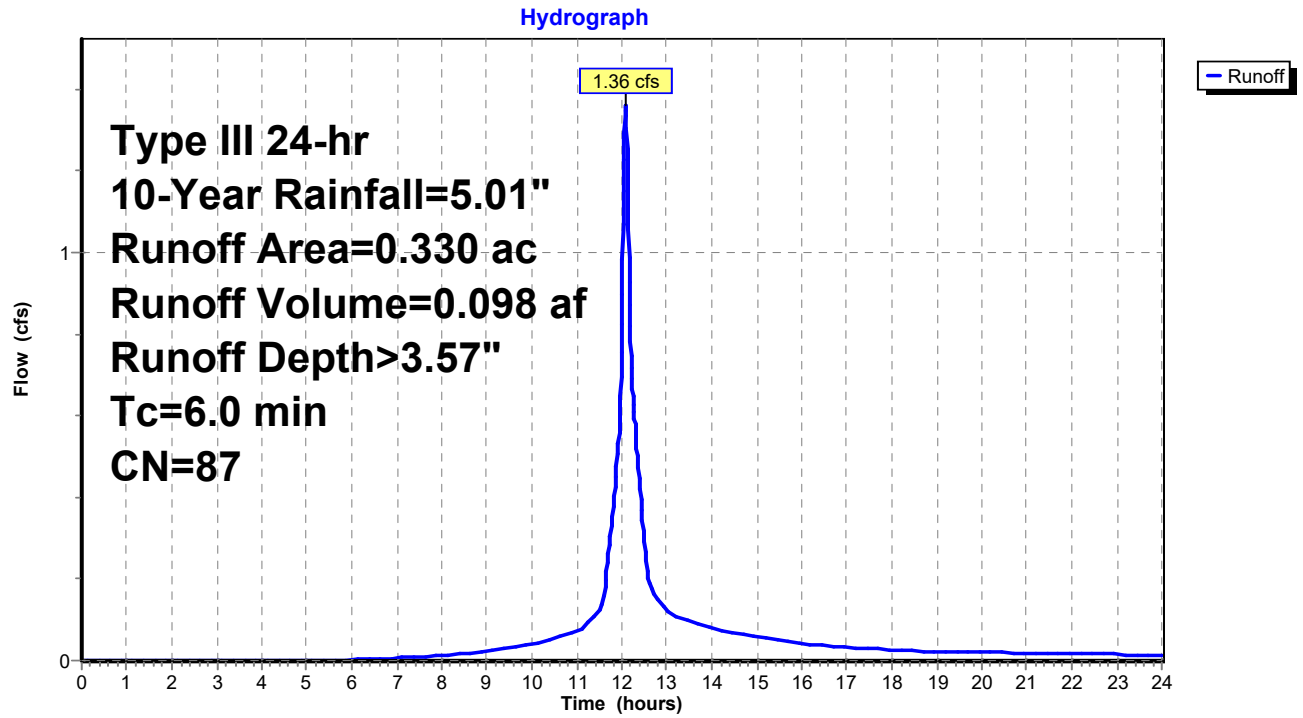
Runoff = 1.36 cfs @ 12.09 hrs, Volume= 0.098 af, Depth> 3.57"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 10-Year Rainfall=5.01"

Area (ac)	CN	Description
0.235	98	Paved parking, HSG B
0.095	61	>75% Grass cover, Good, HSG B
0.330	87	Weighted Average
0.095		28.79% Pervious Area
0.235		71.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-8: PWS-8



Summary for Pond P-1: Bio P-1

Inflow Area = 0.901 ac, 43.62% Impervious, Inflow Depth > 2.63" for 10-Year event
Inflow = 2.78 cfs @ 12.09 hrs, Volume= 0.197 af
Outflow = 1.79 cfs @ 12.19 hrs, Volume= 0.171 af, Atten= 36%, Lag= 5.8 min
Primary = 1.79 cfs @ 12.19 hrs, Volume= 0.171 af
Routed to Pond P-3 : Detention P-3

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 101.95' @ 12.19 hrs Surf.Area= 3,024 sf Storage= 2,296 cf

Plug-Flow detention time= 96.7 min calculated for 0.171 af (87% of inflow)
Center-of-Mass det. time= 37.0 min (865.9 - 828.9)

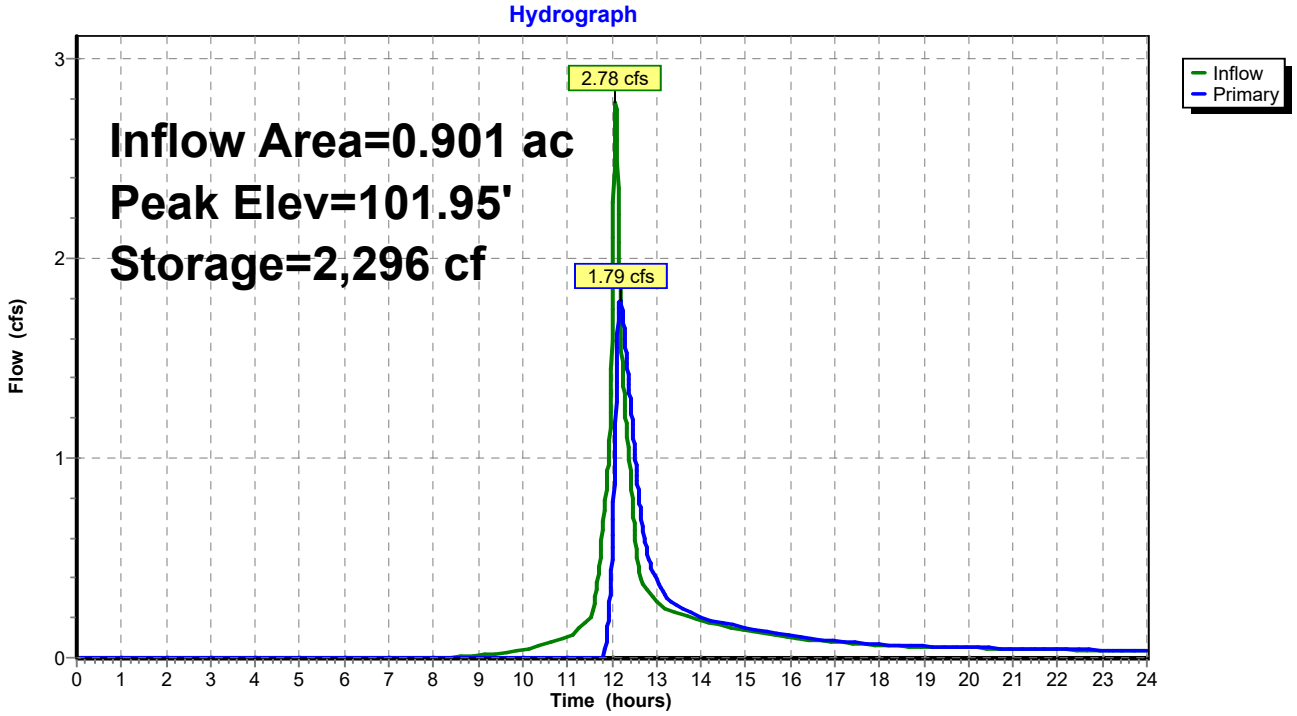
Volume	Invert	Avail.Storage	Storage Description
#1	101.00'	6,493 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
101.00	1,810	0	0
102.00	3,088	2,449	2,449
103.00	5,000	4,044	6,493

Device	Routing	Invert	Outlet Devices
#1	Primary	101.50'	**2.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	102.00'	**14.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=1.79 cfs @ 12.19 hrs HW=101.95' (Free Discharge)
↑—**1=Broad-Crested Rectangular Weir** (Weir Controls 1.79 cfs @ 1.99 fps)
└—**2=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond P-1: Bio P-1



Summary for Pond P-3: Detention P-3

Inflow Area = 2.812 ac, 52.28% Impervious, Inflow Depth > 2.80" for 10-Year event
Inflow = 7.92 cfs @ 12.10 hrs, Volume= 0.656 af
Outflow = 5.44 cfs @ 12.21 hrs, Volume= 0.652 af, Atten= 31%, Lag= 6.9 min
Primary = 5.44 cfs @ 12.21 hrs, Volume= 0.652 af
Routed to Link PDP-1 : PDP-1

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 96.18' @ 12.21 hrs Surf.Area= 0.059 ac Storage= 0.087 af

Plug-Flow detention time= 18.4 min calculated for 0.652 af (99% of inflow)
Center-of-Mass det. time= 14.9 min (836.9 - 822.0)

Volume	Invert	Avail.Storage	Storage Description
#1A	94.00'	0.084 af	**22.75'W x 113.25'L x 5.50'H Field A** 0.325 af Overall - 0.116 af Embedded = 0.210 af x 40.0% Voids
#2A	94.75'	0.116 af	**ADS_StormTech MC-3500 d +Cap**x 45 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 45 Chambers in 3 Rows Cap Storage= 14.9 cf x 2 x 3 rows = 89.4 cf
		0.200 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	94.00'	**18.0" Round Culvert** L= 45.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 94.00' / 93.50' S= 0.0111 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	94.00'	**4.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	95.00'	**22.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	97.75'	**24.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Device 1	99.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=5.44 cfs @ 12.21 hrs HW=96.18' (Free Discharge)
└─**1=Culvert** (Passes 5.44 cfs of 10.19 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 1.19 cfs @ 6.84 fps)
  ├─**3=Orifice/Grate** (Orifice Controls 4.25 cfs @ 4.64 fps)
  ├─**4=Orifice/Grate** (Controls 0.00 cfs)
  └─**5=Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Pond P-3: Detention P-3 - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= 14.9 cf x 2 x 3 rows = 89.4 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

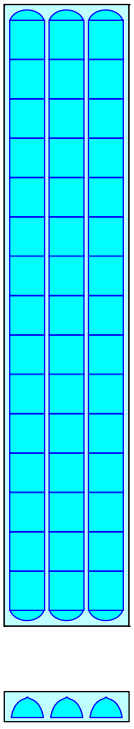
15 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 111.25' Row Length +12.0" End Stone x 2 = 113.25' Base Length
3 Rows x 77.0" Wide + 9.0" Spacing x 2 + 12.0" Side Stone x 2 = 22.75' Base Width
9.0" Stone Base + 45.0" Chamber Height + 12.0" Stone Cover = 5.50' Field Height

45 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 3 Rows = 5,037.2 cf Chamber Storage

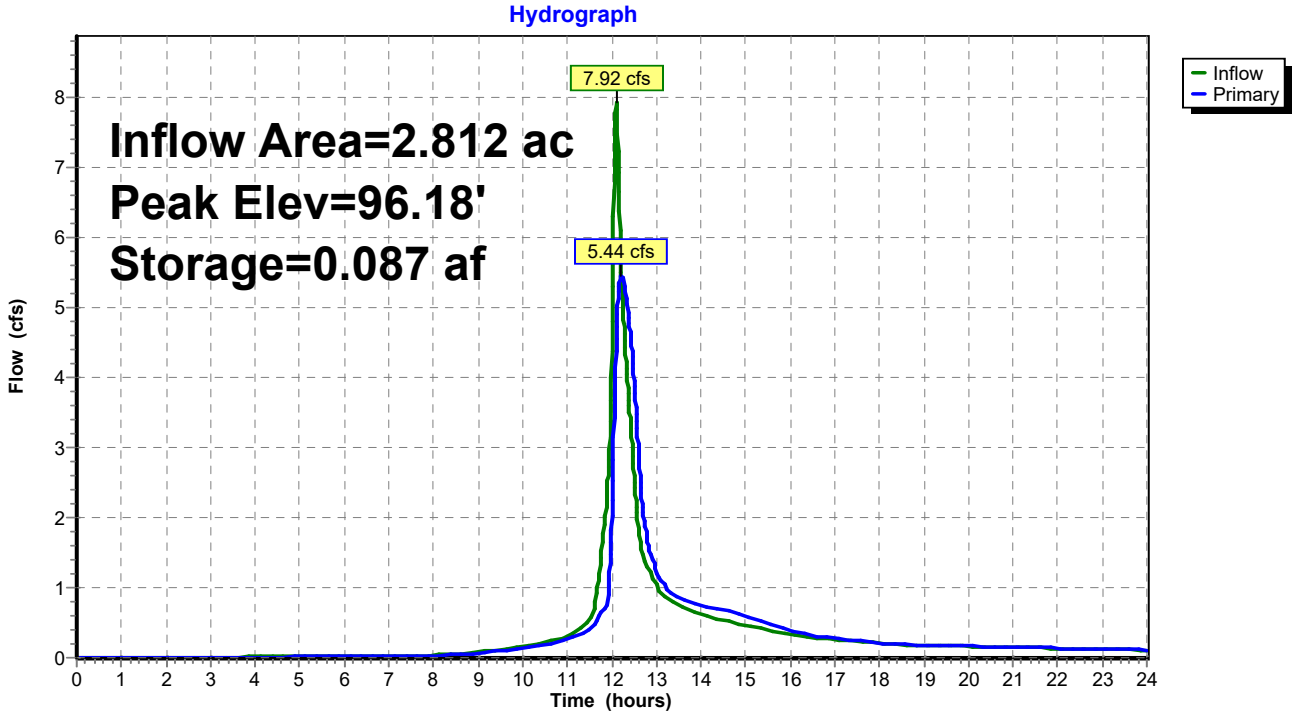
14,170.4 cf Field - 5,037.2 cf Chambers = 9,133.2 cf Stone x 40.0% Voids = 3,653.3 cf Stone Storage

Chamber Storage + Stone Storage = 8,690.5 cf = 0.200 af
Overall Storage Efficiency = 61.3%
Overall System Size = 113.25' x 22.75' x 5.50'

45 Chambers
524.8 cy Field
338.3 cy Stone



Pond P-3: Detention P-3

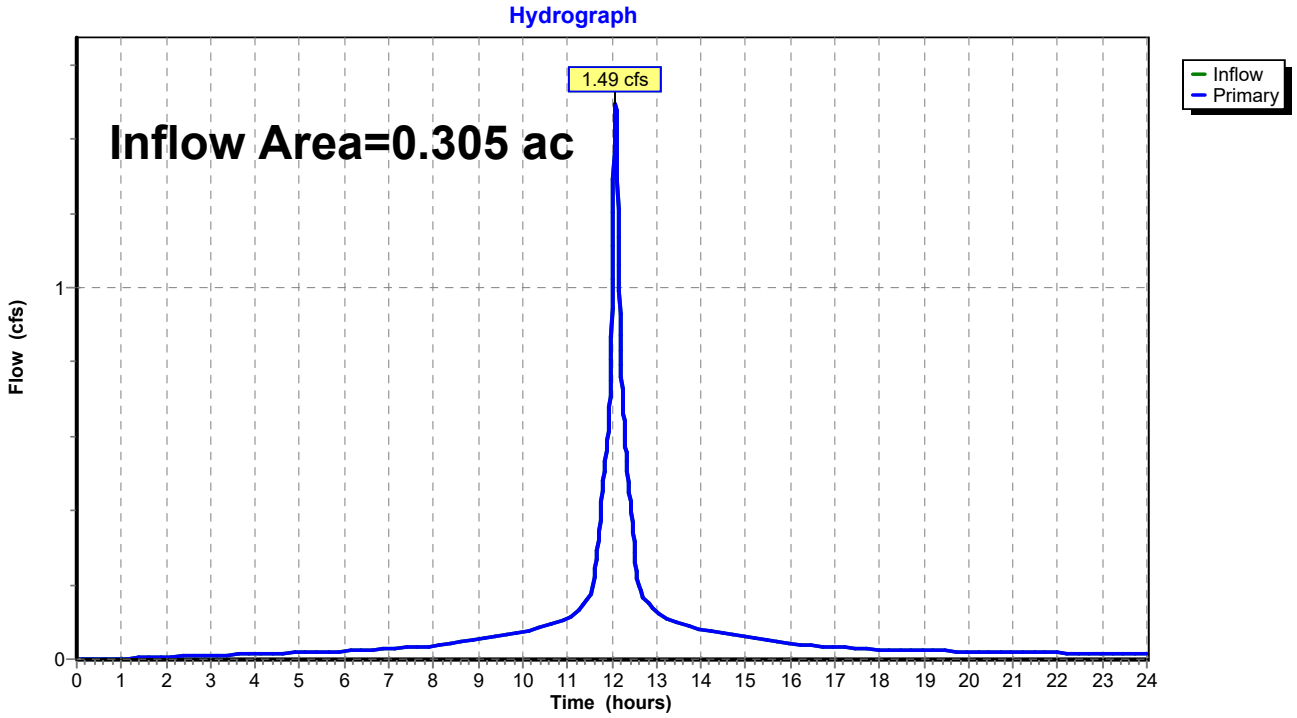


Summary for Pond SC-1: Swirl Chamber

Inflow Area = 0.305 ac,100.00% Impervious, Inflow Depth > 4.77" for 10-Year event
Inflow = 1.49 cfs @ 12.08 hrs, Volume= 0.121 af
Primary = 1.49 cfs @ 12.08 hrs, Volume= 0.121 af, Atten= 0%, Lag= 0.0 min
Routed to Pond P-3 : Detention P-3

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Pond SC-1: Swirl Chamber

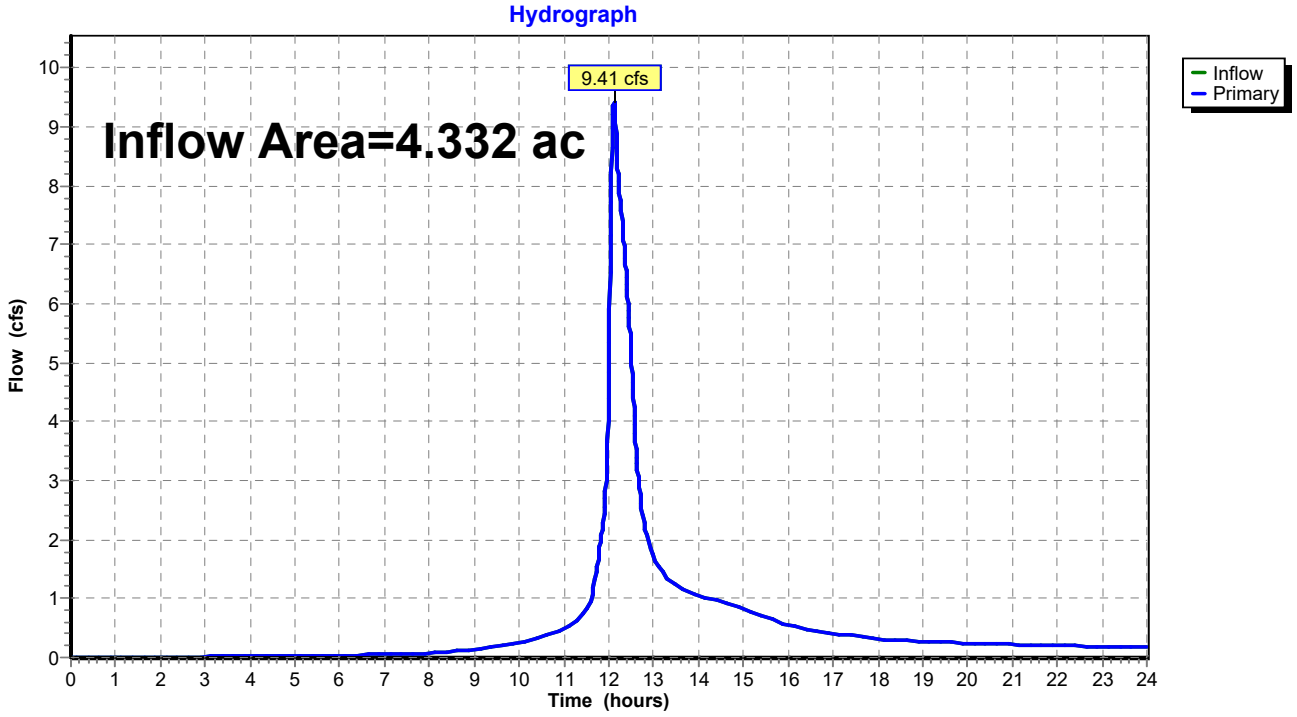


Summary for Link PDP-1: PDP-1

Inflow Area = 4.332 ac, 50.48% Impervious, Inflow Depth > 2.81" for 10-Year event
Inflow = 9.41 cfs @ 12.11 hrs, Volume= 1.014 af
Primary = 9.41 cfs @ 12.11 hrs, Volume= 1.014 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link PDP-1: PDP-1



Summary for Subcatchment PWS-1: PWS-1

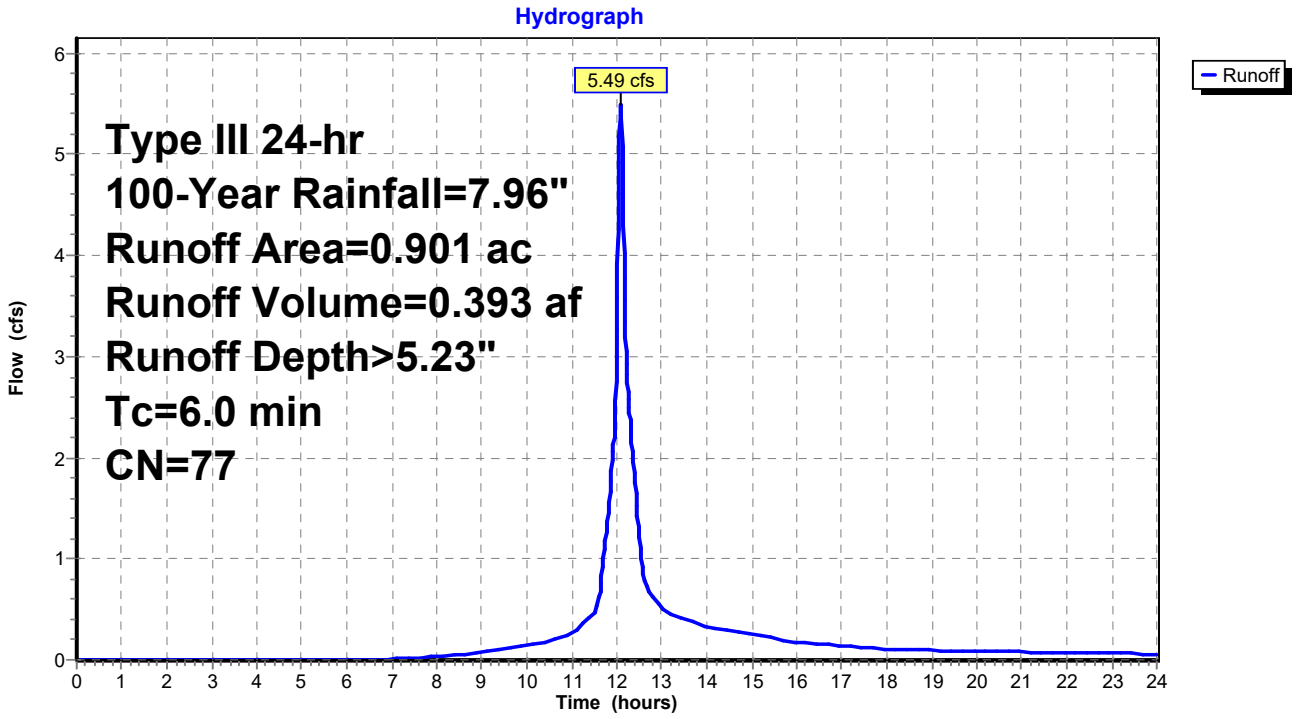
Runoff = 5.49 cfs @ 12.09 hrs, Volume= 0.393 af, Depth> 5.23"
Routed to Pond P-1 : Bio P-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (ac)	CN	Description
0.393	98	Paved parking, HSG B
0.448	61	>75% Grass cover, Good, HSG B
0.060	55	Woods, Good, HSG B
0.901	77	Weighted Average
0.508		56.38% Pervious Area
0.393		43.62% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-1: PWS-1



Summary for Subcatchment PWS-2: PWS-2

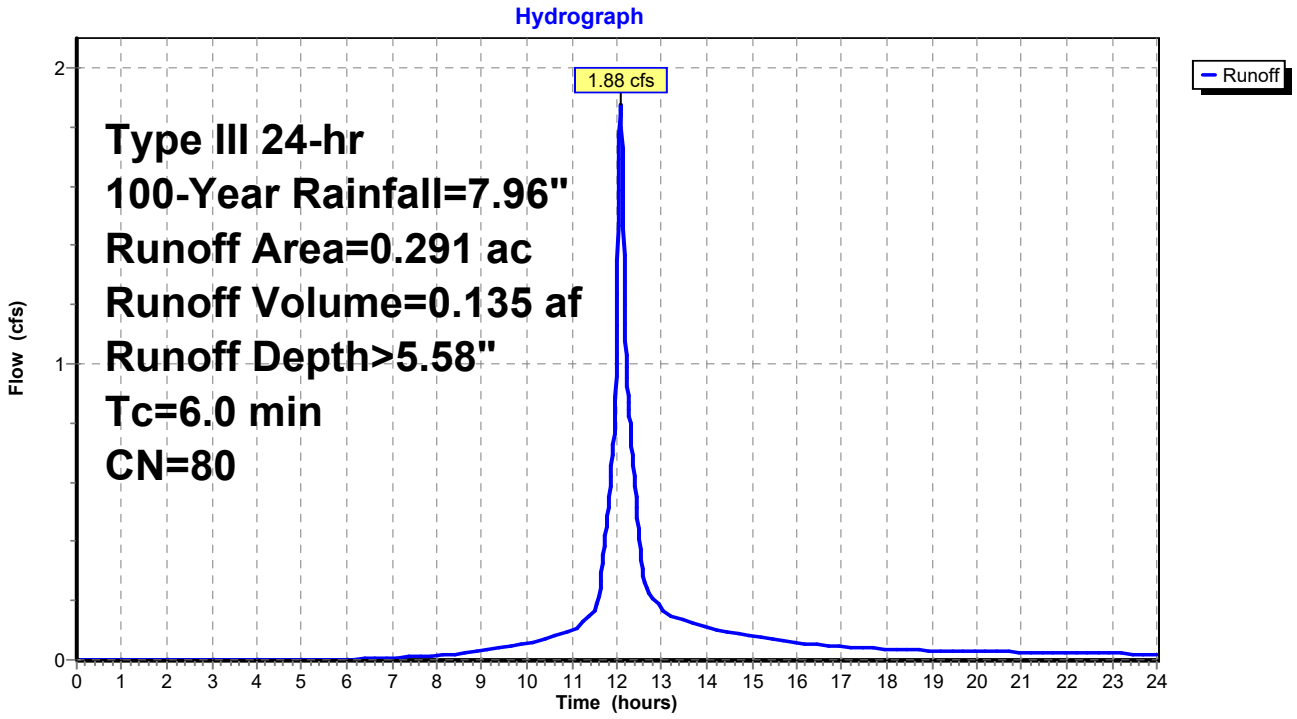
Runoff = 1.88 cfs @ 12.09 hrs, Volume= 0.135 af, Depth> 5.58"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (ac)	CN	Description
0.150	98	Paved parking, HSG B
0.115	61	>75% Grass cover, Good, HSG B
0.026	55	Woods, Good, HSG B
0.291	80	Weighted Average
0.141		48.45% Pervious Area
0.150		51.55% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-2: PWS-2



Summary for Subcatchment PWS-3: PWS-3

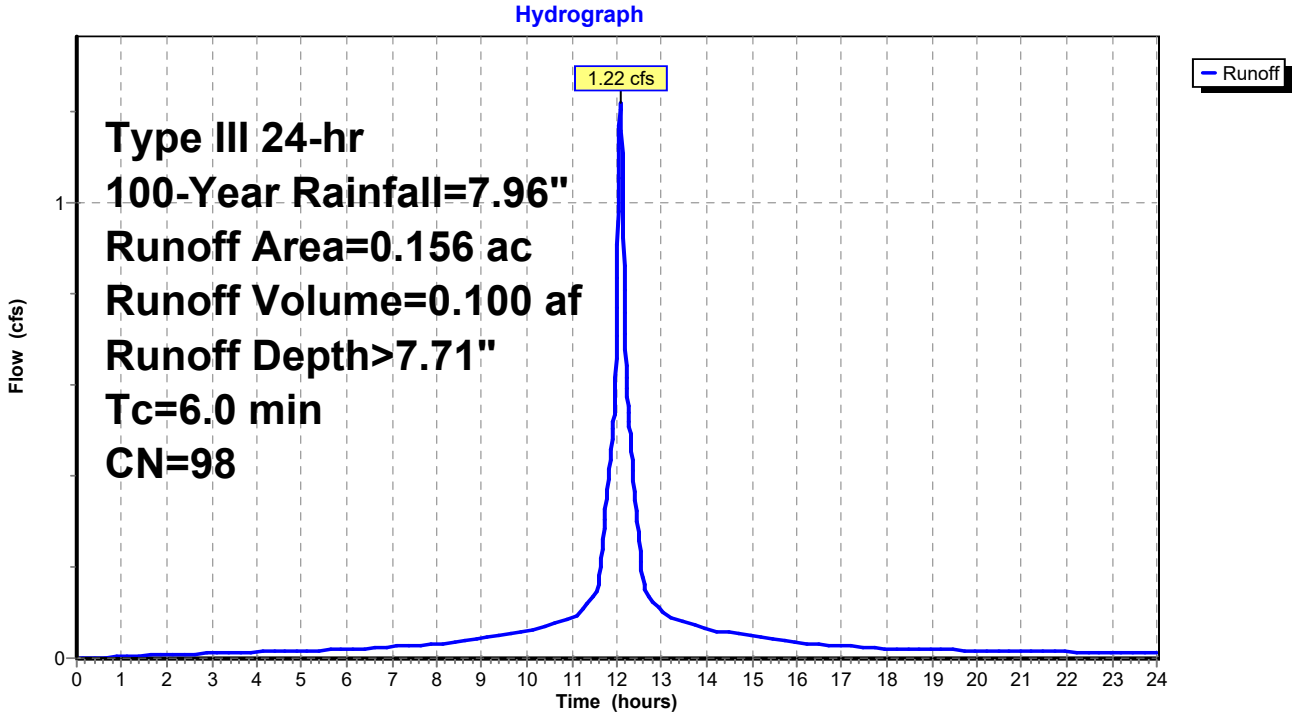
Runoff = 1.22 cfs @ 12.08 hrs, Volume= 0.100 af, Depth> 7.71"
Routed to Pond SC-1 : Swirl Chamber

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (ac)	CN	Description
0.156	98	Roofs, HSG B
0.156		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-3: PWS-3



Summary for Subcatchment PWS-4: PWS-4

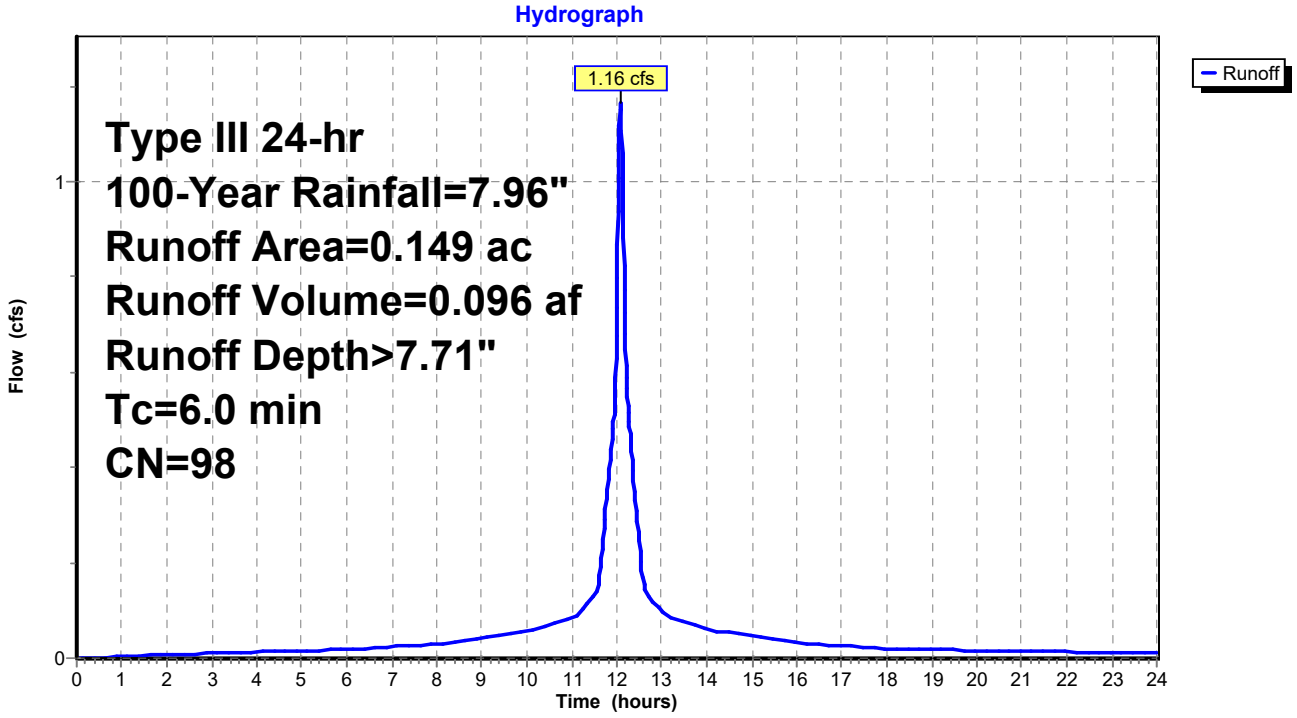
Runoff = 1.16 cfs @ 12.08 hrs, Volume= 0.096 af, Depth> 7.71"
Routed to Pond SC-1 : Swirl Chamber

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (ac)	CN	Description
0.149	98	Roofs, HSG B
0.149		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-4: PWS-4



Summary for Subcatchment PWS-5: PWS-5

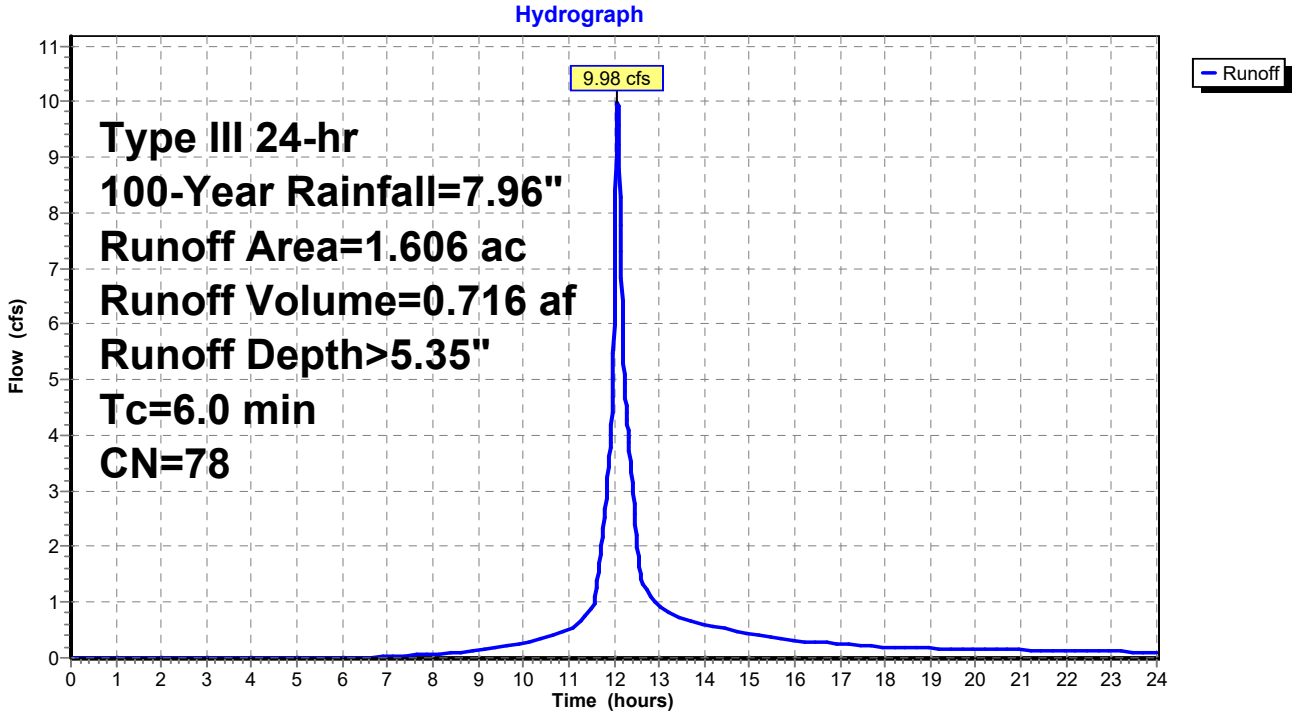
Runoff = 9.98 cfs @ 12.09 hrs, Volume= 0.716 af, Depth> 5.35"
Routed to Pond P-3 : Detention P-3

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (ac)	CN	Description
0.772	98	Paved parking, HSG B
0.662	61	>75% Grass cover, Good, HSG B
0.172	55	Woods, Good, HSG B
1.606	78	Weighted Average
0.834		51.93% Pervious Area
0.772		48.07% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-5: PWS-5



Summary for Subcatchment PWS-6: PWS-6

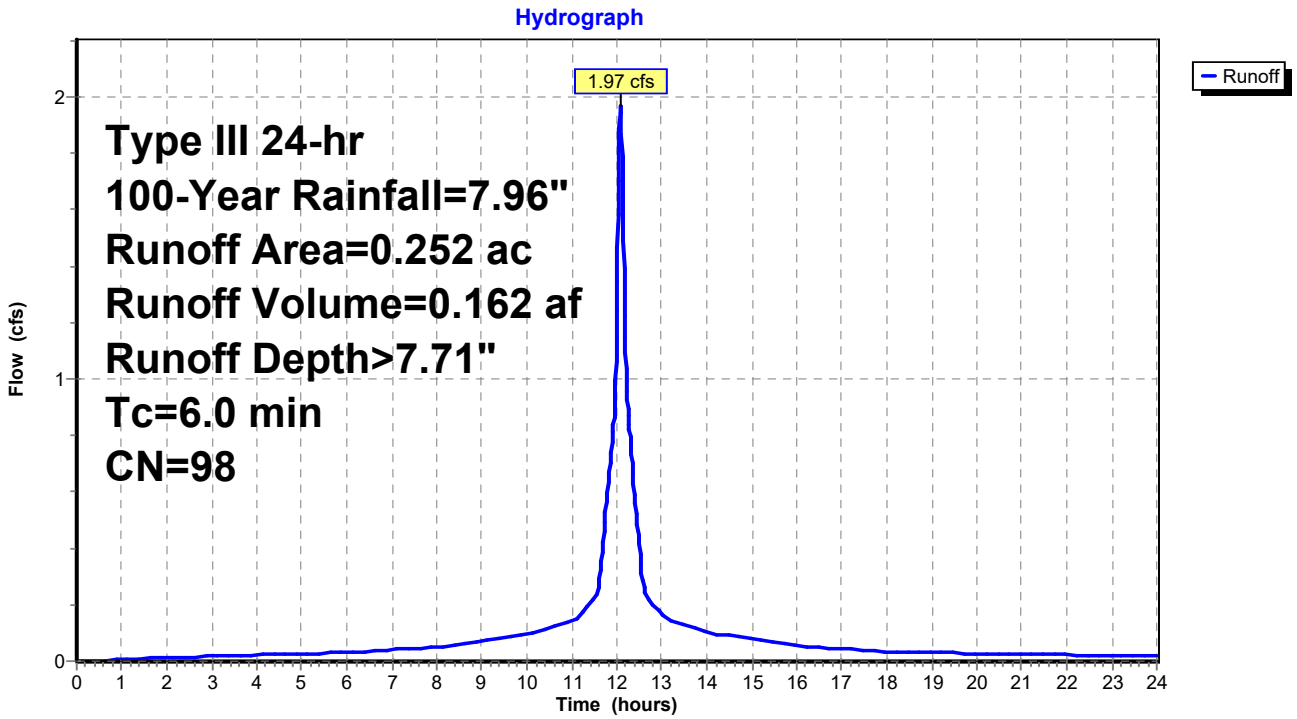
Runoff = 1.97 cfs @ 12.08 hrs, Volume= 0.162 af, Depth> 7.71"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (ac)	CN	Description
0.252	98	Roofs, HSG B
0.252		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-6: PWS-6



Summary for Subcatchment PWS-7: PWS-7

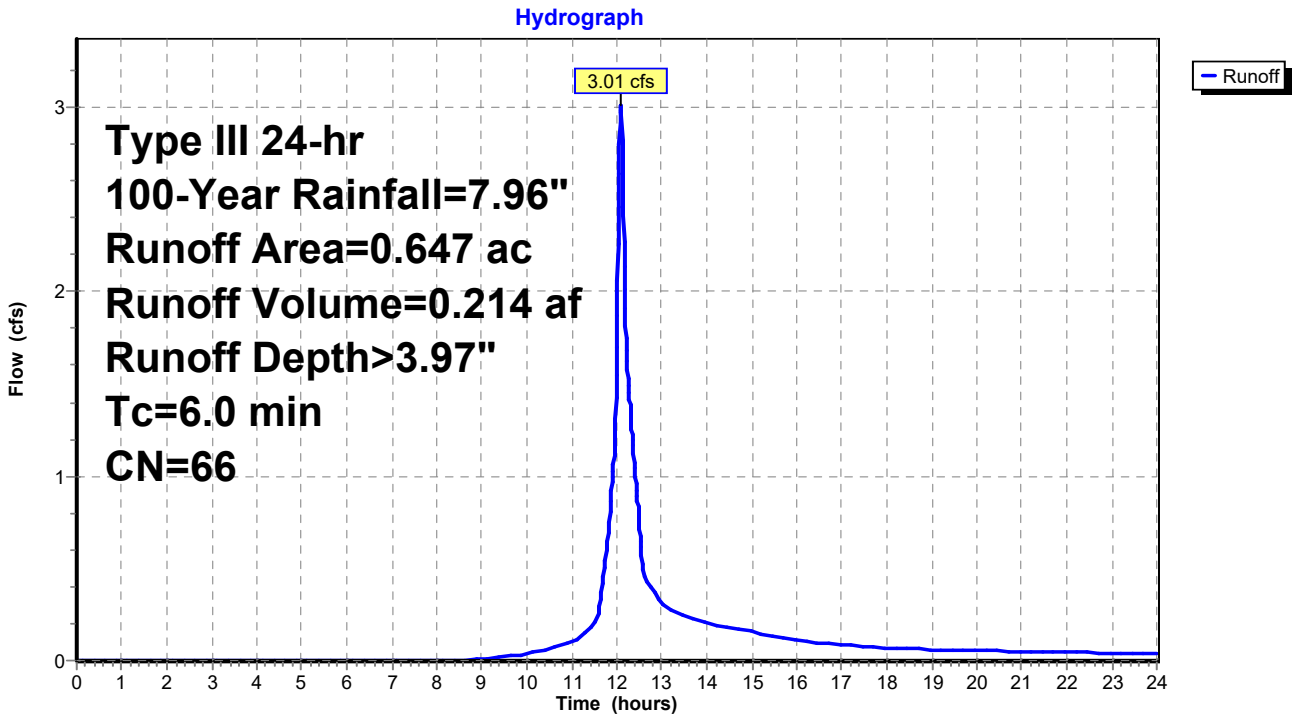
Runoff = 3.01 cfs @ 12.09 hrs, Volume= 0.214 af, Depth> 3.97"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (ac)	CN	Description
0.080	98	Paved parking, HSG B
0.567	61	>75% Grass cover, Good, HSG B
0.647	66	Weighted Average
0.567		87.64% Pervious Area
0.080		12.36% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-7: PWS-7



Summary for Subcatchment PWS-8: PWS-8

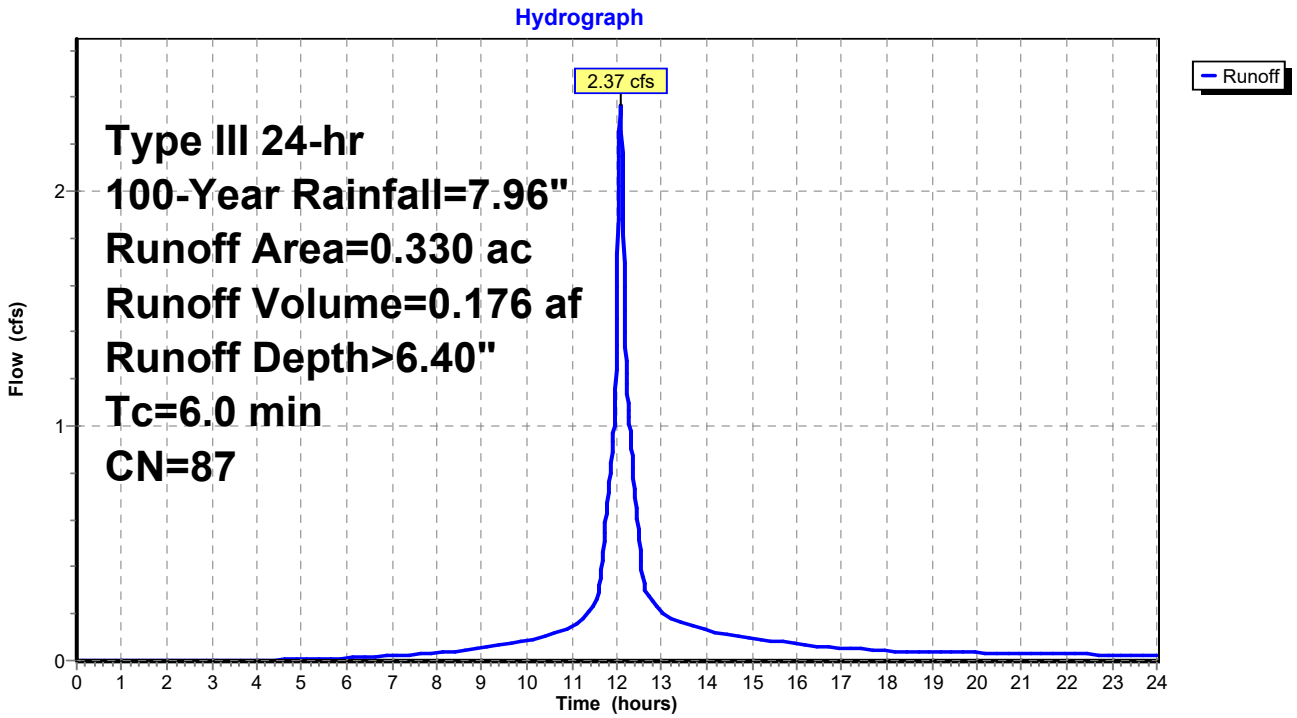
Runoff = 2.37 cfs @ 12.08 hrs, Volume= 0.176 af, Depth> 6.40"
Routed to Link PDP-1 : PDP-1

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Type III 24-hr 100-Year Rainfall=7.96"

Area (ac)	CN	Description
0.235	98	Paved parking, HSG B
0.095	61	>75% Grass cover, Good, HSG B
0.330	87	Weighted Average
0.095		28.79% Pervious Area
0.235		71.21% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
6.0					**Direct Entry,**

Subcatchment PWS-8: PWS-8



Summary for Pond P-1: Bio P-1

Inflow Area = 0.901 ac, 43.62% Impervious, Inflow Depth > 5.23" for 100-Year event
Inflow = 5.49 cfs @ 12.09 hrs, Volume= 0.393 af
Outflow = 5.07 cfs @ 12.12 hrs, Volume= 0.366 af, Atten= 8%, Lag= 2.0 min
Primary = 5.07 cfs @ 12.12 hrs, Volume= 0.366 af
Routed to Pond P-3 : Detention P-3

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 102.13' @ 12.12 hrs Surf.Area= 3,344 sf Storage= 2,879 cf

Plug-Flow detention time= 63.1 min calculated for 0.366 af (93% of inflow)
Center-of-Mass det. time= 27.1 min (836.3 - 809.3)

Volume	Invert	Avail.Storage	Storage Description
#1	101.00'	6,493 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

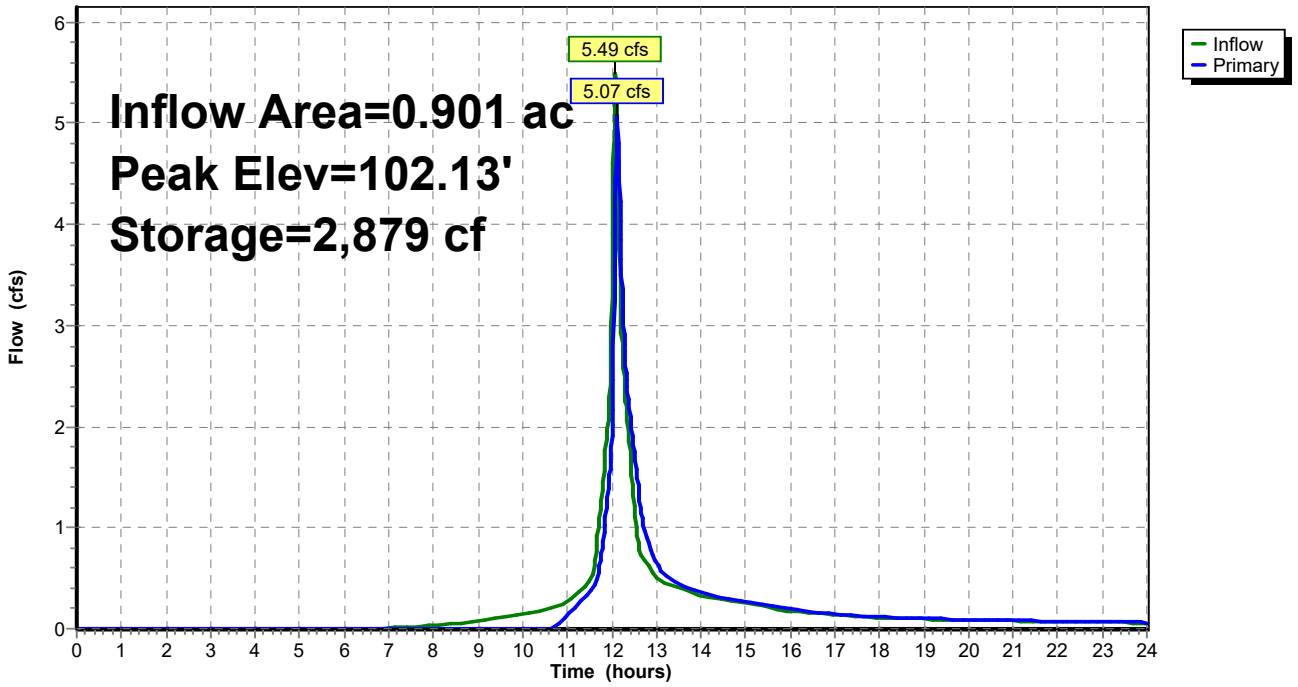
Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
101.00	1,810	0	0
102.00	3,088	2,449	2,449
103.00	5,000	4,044	6,493

Device	Routing	Invert	Outlet Devices
#1	Primary	101.50'	**2.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32
#2	Primary	102.00'	**14.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=5.06 cfs @ 12.12 hrs HW=102.13' (Free Discharge)
1=Broad-Crested Rectangular Weir (Weir Controls 3.15 cfs @ 2.48 fps)
2=Broad-Crested Rectangular Weir (Weir Controls 1.92 cfs @ 1.02 fps)

Pond P-1: Bio P-1

Hydrograph



Summary for Pond P-3: Detention P-3

Inflow Area = 2.812 ac, 52.28% Impervious, Inflow Depth > 5.45" for 100-Year event
Inflow = 17.10 cfs @ 12.10 hrs, Volume= 1.278 af
Outflow = 12.58 cfs @ 12.17 hrs, Volume= 1.272 af, Atten= 26%, Lag= 4.7 min
Primary = 12.58 cfs @ 12.17 hrs, Volume= 1.272 af
Routed to Link PDP-1 : PDP-1

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs
Peak Elev= 98.40' @ 12.17 hrs Surf.Area= 0.059 ac Storage= 0.174 af

Plug-Flow detention time= 16.8 min calculated for 1.272 af (100% of inflow)
Center-of-Mass det. time= 14.3 min (819.5 - 805.2)

Volume	Invert	Avail.Storage	Storage Description
#1A	94.00'	0.084 af	**22.75'W x 113.25'L x 5.50'H Field A** 0.325 af Overall - 0.116 af Embedded = 0.210 af x 40.0% Voids
#2A	94.75'	0.116 af	**ADS_StormTech MC-3500 d +Cap**x 45 Inside #1 Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap 45 Chambers in 3 Rows Cap Storage= 14.9 cf x 2 x 3 rows = 89.4 cf
		0.200 af	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Primary	94.00'	**18.0" Round Culvert** L= 45.0' CPP, square edge headwall, Ke= 0.500 Inlet / Outlet Invert= 94.00' / 93.50' S= 0.0111 '/' Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 1.77 sf
#2	Device 1	94.00'	**4.0" Vert. Orifice/Grate X 2.00** C= 0.600 Limited to weir flow at low heads
#3	Device 1	95.00'	**22.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#4	Device 1	97.75'	**24.0" W x 6.0" H Vert. Orifice/Grate** C= 0.600 Limited to weir flow at low heads
#5	Device 1	99.00'	**4.0' long x 0.5' breadth Broad-Crested Rectangular Weir** Head (feet) 0.20 0.40 0.60 0.80 1.00 Coef. (English) 2.80 2.92 3.08 3.30 3.32

Primary OutFlow Max=12.56 cfs @ 12.17 hrs HW=98.40' (Free Discharge)
└─**1=Culvert** (Passes 12.56 cfs of 16.26 cfs potential flow)
  ├─**2=Orifice/Grate** (Orifice Controls 1.73 cfs @ 9.91 fps)
  ├─**3=Orifice/Grate** (Orifice Controls 7.83 cfs @ 8.55 fps)
  ├─**4=Orifice/Grate** (Orifice Controls 3.00 cfs @ 3.00 fps)
  └─**5=Broad-Crested Rectangular Weir** (Controls 0.00 cfs)

Pond P-3: Detention P-3 - Chamber Wizard Field A

Chamber Model = ADS_StormTechMC-3500 d +Cap (ADS StormTech®MC-3500 d rev 03/14 with Cap volume)
Effective Size= 70.4"W x 45.0"H => 15.33 sf x 7.17'L = 110.0 cf
Overall Size= 77.0"W x 45.0"H x 7.50'L with 0.33' Overlap
Cap Storage= 14.9 cf x 2 x 3 rows = 89.4 cf

77.0" Wide + 9.0" Spacing = 86.0" C-C Row Spacing

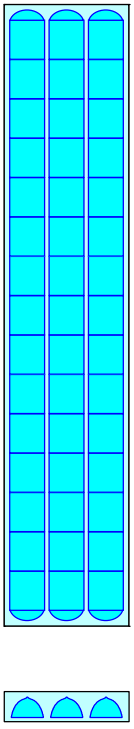
15 Chambers/Row x 7.17' Long +1.85' Cap Length x 2 = 111.25' Row Length +12.0" End Stone x 2 = 113.25' Base Length
3 Rows x 77.0" Wide + 9.0" Spacing x 2 + 12.0" Side Stone x 2 = 22.75' Base Width
9.0" Stone Base + 45.0" Chamber Height + 12.0" Stone Cover = 5.50' Field Height

45 Chambers x 110.0 cf + 14.9 cf Cap Volume x 2 x 3 Rows = 5,037.2 cf Chamber Storage

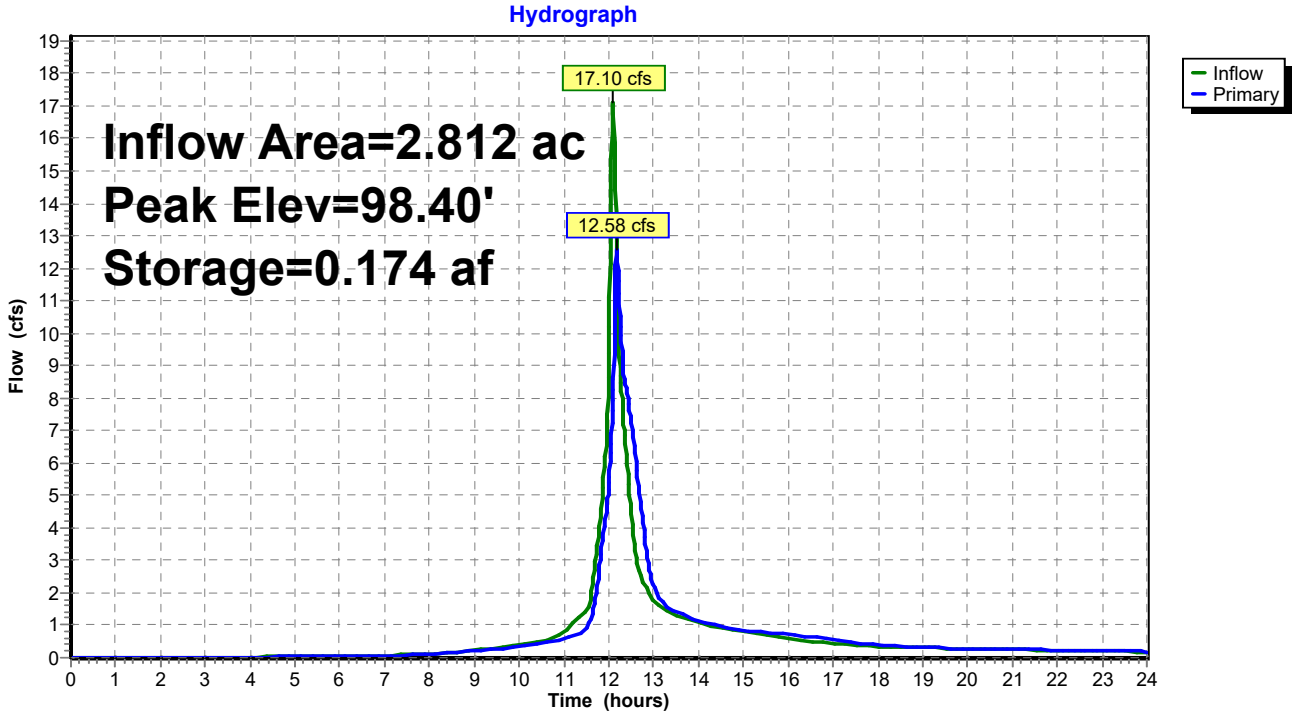
14,170.4 cf Field - 5,037.2 cf Chambers = 9,133.2 cf Stone x 40.0% Voids = 3,653.3 cf Stone Storage

Chamber Storage + Stone Storage = 8,690.5 cf = 0.200 af
Overall Storage Efficiency = 61.3%
Overall System Size = 113.25' x 22.75' x 5.50'

45 Chambers
524.8 cy Field
338.3 cy Stone



Pond P-3: Detention P-3

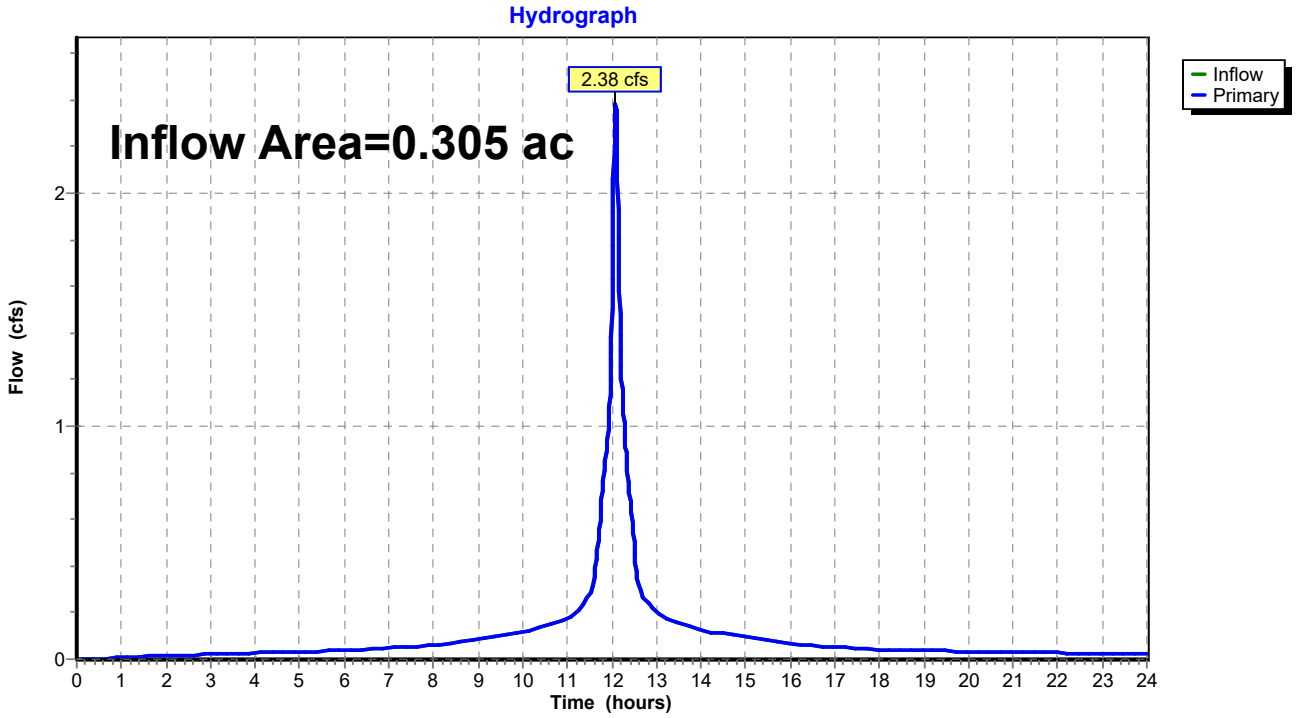


Summary for Pond SC-1: Swirl Chamber

Inflow Area = 0.305 ac,100.00% Impervious, Inflow Depth > 7.71" for 100-Year event
Inflow = 2.38 cfs @ 12.08 hrs, Volume= 0.196 af
Primary = 2.38 cfs @ 12.08 hrs, Volume= 0.196 af, Atten= 0%, Lag= 0.0 min
Routed to Pond P-3 : Detention P-3

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Pond SC-1: Swirl Chamber

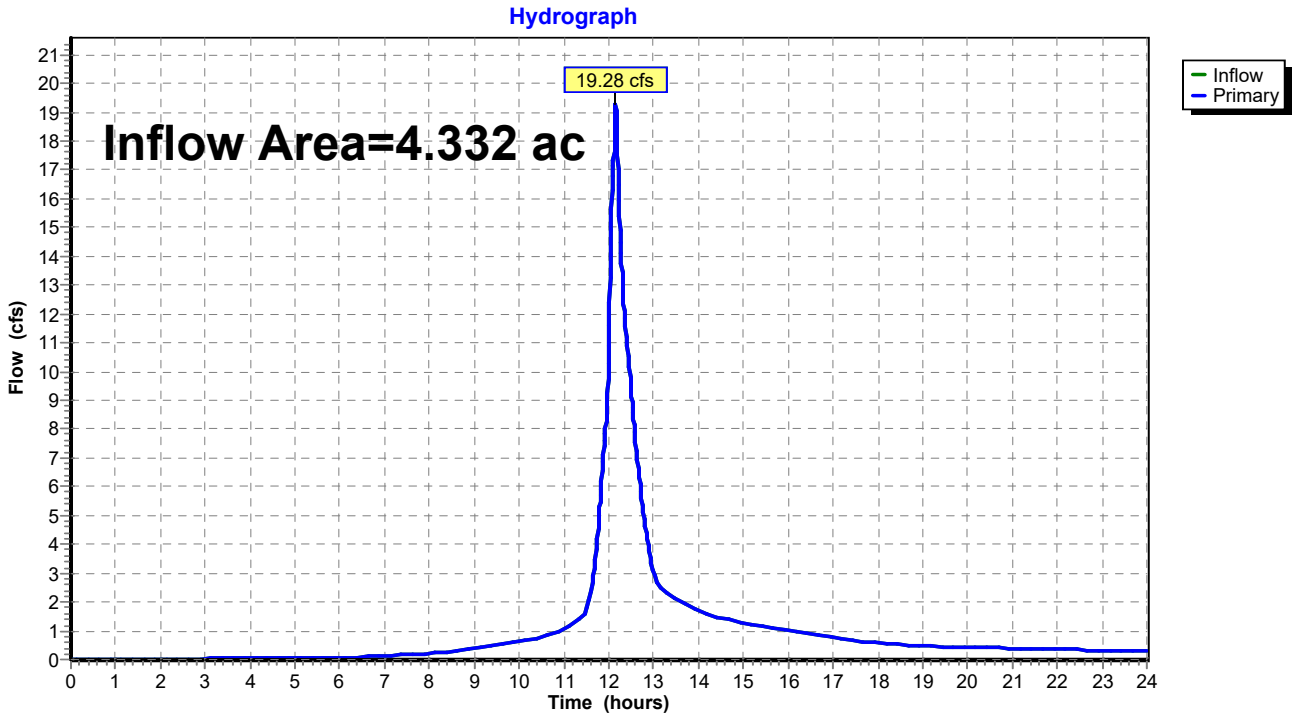


Summary for Link PDP-1: PDP-1

Inflow Area = 4.332 ac, 50.48% Impervious, Inflow Depth > 5.43" for 100-Year event
Inflow = 19.28 cfs @ 12.15 hrs, Volume= 1.960 af
Primary = 19.28 cfs @ 12.15 hrs, Volume= 1.960 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-24.00 hrs, dt= 0.01 hrs

Link PDP-1: PDP-1



Version 1.8
Last Updated: 11/09/2015

Total Water Quality Volume Calculation
WQv(acre-feet) = [(P)(Rv)(A)] /12

Is this project subject to Chapter 10 of the NYS Design Manual (i.e. WQv is equal to post-development 1 year runoff volume)?	No
Design Point:	1
P=	1.40 *inch*

Manually enter P, Total Area and Impervious Cover.

Breakdown of Subcatchments

Catchment Number	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Rv	WQv *(ft^3)*	Description
1	0.39	0.39	100%	0.95	1,883	Bio P-1
2						
3						
4						
5						
6						
7						
8						
9						
10						
Subtotal (1-30)	0.39	0.39	100%	0.95	**1,883**	**Subtotal 1**
Total	0.39	0.39	100%	0.95	**1,883**	**Initial WQv**	**0.04**	**af**

Identify Runoff Reduction Techniques By Area

Technique	Total Contributing Area *(Acre)*	Contributing Impervious Area *(Acre)*	Notes
Conservation of Natural Areas	0.00	0.00	*minimum 10,000 sf*
Riparian Buffers	0.00	0.00	*maximum contributing length 75 feet to 150 feet*
Filter Strips	0.00	0.00	
Tree Planting	0.00	0.00	*Up to 100 sf directly connected impervious area may be subtracted per*
Total	**0.00**	**0.00**	

Recalculate WQv after application of Area Reduction Techniques

	Total Area *(Acres)*	Impervious Area *(Acres)*	Percent Impervious *%*	Runoff Coefficient Rv	WQv *(ft^3)*		
"<<Initial WQv"	0.39	0.39	100%	0.95	1,883		
Subtract Area	0.00	0.00					
WQv adjusted after Area Reductions	**0.39**	**0.39**	100%	0.95	1,883		
Disconnection of Rooftops		0.00					
Adjusted WQv after Area Reduction and Rooftop Disconnect	0.39	0.39	100%	0.95	**1,883**	**0.04**	**af**
WQv reduced by Area Reduction techniques					0	**0.00**	**af**

Version 1.8
Last Updated: 11/09/2015

Total Water Quality Volume Calculation
WQv(acre-feet) = [(P)(Rv)(A)] /12

(For use on HSG C or D Soils with underdrains)

Af=WQv*(df)/[k*(hf+df)(tf)]

Af	Required Surface Area (ft2)
WQv	Water Quality Volume (ft3)
df	Depth of the Soil Medium (feet)
hf	Average height of water above the planter bed
tf	Volume Through the Filter Media (days)

k — The hydraulic conductivity [ft/day], can be varied depending on the properties of the soil media. Some reported conductivity values are: ***Sand*** - 3.5 ft/day (City of Austin 1988); ***Peat*** - 2.0 ft/day (Galli 1990); ***Leaf Compost*** - 8.7 ft/day (Claytor and Schueler, 1996); ***Bioretention Soil*** (0.5 ft/day (Claytor & Schueler, 1996)

Design Point:	**1**

Enter Site Data For Drainage Area to be Treated by Practice							
Catchment Number	**Total Area** *(Acres)*	**Impervious Area** *(Acres)*	**Percent Impervious** *%*	**Rv**	**WQv** *(ft^3)*	**Precipitation** *(in)*	**Description**
1	0.39	0.39	1.00	0.95	1882.88	1.40	Bio P-1
Enter Impervious Area Reduced by Disconnection of Rooftops			100%	0.95	1,883	<<WQv after adjusting for Disconnected Rooftops	
Enter the portion of the WQv that is not reduced for all practices routed to this practice.					0	*ft^3*	

Soil Information			
Soil Group	B		
Soil Infiltration Rate	0.00	*in/hour*	*Okay*
Using Underdrains?	Yes	*Okay*	

Calculate the Minimum Filter Area				
		Value	Units	Notes
WQv		1,883	*ft^3*	
Enter Depth of Soil Media	*df*	2.5	*ft*	*2.5-4 ft*
Enter Hydraulic Conductivity	*k*	0.5	*ft/day*	
Enter Average Height of Ponding	*hf*	0.25	*ft*	*6 inches max.*
Enter Filter Time	*tf*	2	*days*	
Required Filter Area	***Af***	**1712**	***ft^2***	

Determine Actual Bio-Retention Area			
Filter Width	1810	*ft*	
Filter Length	1	*ft*	
Filter Area	1810	*ft^2*	
Actual Volume Provided	1991	*ft^3*	

Determine Runoff Reduction				
Is the Bioretention contributing flow to another practice?		No	Select Practice	
RRv	796			
RRv applied	**796**	***ft^3***	***This is 40% of the storage provided or WQv whichever is less.***	
Volume Treated	1,086	*ft^3*	*This is the portion of the WQv that is not reduced in the practice.*	
Volume Directed	0	*ft^3*	This volume is directed another practice	
Sizing √	OK		*Check to be sure Area provided ≥ Af*	

400 Columbus Avenue, Suite 180E
Valhalla, New York 10595
Main: 877 627 3772
colliersengineering.com

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Memorandum

To: Chairman John Gunn
Members of the City Beacon Planning Board

From: Richard D'Andrea, P.E., PTOE

Date: January 31, 2024

Subject: 45 Beekman Street & High Street
Traffic & Parking Study

Project No.: 23010468A

Our office recently completed a Revised Traffic & Parking Study dated January 24, 2024, for the above-referenced Project, a copy of which is attached to this Memorandum. That Study analyzes the potential traffic and parking impacts of the Project assuming a development proposal to include a 4-story building that will be comprised of approximately 8,670 square feet of commercial space and 2,410 square feet of tenant amenity space on the 1st Floor, together with 36 dwelling units on Floors 2-4 in the 45 Beekman Street parcel building and a 4-story building comprised of approximately 5,418 square feet of commercial space and 3,420 square feet of tenant amenity space on the 1st Floor together with approximately 28 dwelling units on Floors 2-4 in the High Street parcels building.

The Project has since been revised slightly to reduce the total commercial square footage within the High Street building from 5,418 square feet down to 3,930 square feet in order to create an exterior covered arcade in front of the commercial storefronts along Beekman Street. This change in proposed commercial square footage will result in a further reduction in the total traffic generation and parking demand for the Project that is detailed within the Revised Traffic & Parking Study.

Traffic generation estimates for the reduced development size have been prepared and summarized in Table No. 1R, attached. These estimates indicate that the Project will generate two (2) fewer vehicle trips during the Weekday AM Peak Hour, seven (7) fewer vehicle trips during the Weekday PM Peak Hour and eight (8) fewer vehicle trips during the Saturday Peak Hour when compared to the trip generation estimates presented in the Revised Traffic & Parking Study. Based on the reduced development size and revised traffic generation estimates it can be concluded that the traffic analysis contained in the Revised Traffic & Parking Study is slightly conservative and the conclusions of the study do not change significantly with changes in the development size.

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The shared parking analysis, accounting for the Project's proximity to the Beacon Metro North train station, included in the Revised Traffic & Parking Study has also been recomputed to reflect the reduced development size. This revised parking analysis is summarized in Tables P-1AR and P-2AR, attached. As indicated in the tables, the peak parking demand for the reduced development size Project is anticipated to be 78 parking spaces, which will be accommodated by the 83 spaces to be provided on the Site.

Finally, a fully revised Traffic & Parking Study accounting for the reduced development size will be prepared and submitted to the Planning Board as part of a future submission.

R:\Projects\2023\23010468A\Correspondence\OUT\240131RGD_PB Memo_Reduced Development Size.docx

Table No. 1R
Hourly Trip Generation Rates (HTGR) and Anticipated Site Generated Traffic Volumes

45 Beekman Street & High Street City of Beacon, Dutchess County, New York	Entry			Exit		
	HTGR[1]	Volume	New Trips[2]	HTGR[1]	Volume	New Trips[2]
Residential (64 Units)						
Peak AM Hour	0.15	10	10	0.51	33	33
Peak PM Hour	0.48	31	31	0.28	18	18
Saturday Peak Hour	0.22	14	14	0.22	14	14
Commercial (12,600 Sq. Ft.)						
Peak AM Hour	1.59	20	20	1.11	14	14
Peak PM Hour	3.65	46	41	3.65	46	41
Saturday Peak Hour	3.33	42	38	3.25	41	37
Total						
Peak AM Hour	-	30	30	-	47	47
Peak PM Hour	-	77	72	-	64	59
Saturday Peak Hour	-	56	52	-	55	51

NOTES:

1) THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 11TH EDITION, 2021. ITE LAND USE CODE - 220 - MULTIFAMILY HOUSING (LOW-RISE) AND ITE LAND USE CODE - 822 - STRIP RETAIL PLAZA (<40K).

2) "NEW TRIPS" INCLUDES A 10% INTERNAL TRIP CREDIT APPLIED TO THE RETAIL LAND USE FOR THE PEAK PM AND SATURDAY PEAK HOURS TO ACCOUNT FOR TRIPS BETWEEN THE RESIDENTIAL AND COMMERCIAL PORTIONS OF THE SITE BASED ON NCHRP 684 INTERNAL TRIP CAPTURE ESTIMATION TOOL ANALYSIS AS SUMMARIZED ON TABLES 1-A, 1-B AND 1-C.

TABLE NO. P-1AR
SHARED PARKING ANALYSIS
WEEKDAY (WITH RAIL CREDIT)

		45 Beekman Street				High Street				
Use		**Residential**		**Retail**		**Residential**		**Retail**		
Size		36 Units		8,670 Sq. Ft.		28 Units		3,930 Sq. Ft.		**Total Peak Parking Demand**
Demand Factor		1 /Unit		3.0 /1,000 Sq. Ft.		1 /Unit		3.0 /1,000 Sq. Ft.		
Peak Hour Demand[2]		33 Spaces		27 Spaces		26 Spaces		12 Spaces		
Time of Day		**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**Parking**
Start	**End**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Spaces**
12:00 AM	1:00 AM	97%	33	0%	-	97%	26	0%	-	59
1:00 AM	2:00 AM	97%	33	0%	-	97%	26	0%	-	59
2:00 AM	3:00 AM	97%	33	0%	-	97%	26	0%	-	59
3:00 AM	4:00 AM	97%	33	0%	-	97%	26	0%	-	59
4:00 AM	5:00 AM	97%	33	0%	-	97%	26	0%	-	59
5:00 AM	6:00 AM	100%	33	0%	-	100%	26	0%	-	59
6:00 AM	7:00 AM	96%	32	0%	-	96%	25	0%	-	57
7:00 AM	8:00 AM	85%	29	0%	-	85%	23	0%	-	52
8:00 AM	9:00 AM	67%	23	19%	6	67%	18	19%	3	50
9:00 AM	10:00 AM	54%	18	33%	9	54%	15	33%	4	46
10:00 AM	11:00 AM	48%	16	47%	13	48%	13	47%	6	48
11:00 AM	12:00 PM	45%	15	55%	15	45%	12	55%	7	49
12:00 PM	1:00 PM	45%	15	89%	25	45%	12	89%	11	63
1:00 PM	2:00 PM	42%	14	100%	27	42%	11	100%	12	64
2:00 PM	3:00 PM	42%	14	73%	20	42%	11	73%	9	54
3:00 PM	4:00 PM	47%	16	73%	20	47%	13	73%	9	58
4:00 PM	5:00 PM	49%	17	66%	18	49%	13	66%	8	56
5:00 PM	6:00 PM	56%	19	70%	19	56%	15	70%	9	62
6:00 PM	7:00 PM	64%	22	75%	21	64%	17	75%	9	69
7:00 PM	8:00 PM	72%	24	70%	19	72%	19	70%	9	71
8:00 PM	9:00 PM	77%	26	54%	15	77%	21	54%	7	69
9:00 PM	10:00 PM	85%	29	48%	13	85%	23	48%	6	71
10:00 PM	11:00 PM	92%	31	0%	-	92%	24	0%	-	55
11:00 PM	12:00 AM	95%	32	0%	-	95%	25	0%	-	57
								Peak Parking Demand		**71**

Notes:

1) "%of Peak Demand" based on Institute of Transportation Engineers (ITE) Parking Generation Manual, 5th Edition Land Use 220 - Multifamily Housing (Low-Rise) and Land Use 820 - Shopping Center Hourly Demand Distributions.

2) "Peak Hour Demand" assumes a 10% credit for proximity to the Beacon Metro North Train Station based on ITE data.

TABLE NO. P-2AR
SHARED PARKING ANALYSIS
WEEKEND (WITH RAIL CREDIT)

		45 Beekman Street				High Street				
Use		**Residential**		**Retail**		**Residential**		**Retail**		
Size		36 Units		8,670 Sq. Ft.		28 Units		3,930 Sq. Ft.		**Total Peak Parking Demand**
Demand Factor		1 /Unit		3.0 /1,000 Sq. Ft.		1 /Unit		3.0 /1,000 Sq. Ft.		
Peak Hour Demand[2]		33 Spaces		27 Spaces		26 Spaces		12 Spaces		
Time of Day		**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**Parking**
Start	**End**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Spaces**
12:00 AM	1:00 AM	92%	31	0%	-	92%	24	0%	-	55
1:00 AM	2:00 AM	92%	31	0%	-	92%	24	0%	-	55
2:00 AM	3:00 AM	92%	31	0%	-	92%	24	0%	-	55
3:00 AM	4:00 AM	92%	31	0%	-	92%	24	0%	-	55
4:00 AM	5:00 AM	92%	31	0%	-	92%	24	0%	-	55
5:00 AM	6:00 AM	100%	33	0%	-	100%	26	0%	-	59
6:00 AM	7:00 AM	99%	33	0%	-	99%	26	0%	-	59
7:00 AM	8:00 AM	97%	33	0%	-	97%	26	0%	-	59
8:00 AM	9:00 AM	92%	31	0%	-	92%	24	0%	-	55
9:00 AM	10:00 AM	83%	28	38%	11	83%	22	38%	5	66
10:00 AM	11:00 AM	79%	27	55%	15	79%	21	55%	7	70
11:00 AM	12:00 PM	71%	24	66%	18	71%	19	66%	8	69
12:00 PM	1:00 PM	68%	23	85%	23	68%	18	85%	11	75
1:00 PM	2:00 PM	65%	22	100%	27	65%	17	100%	12	78
2:00 PM	3:00 PM	62%	21	96%	26	62%	17	96%	12	76
3:00 PM	4:00 PM	66%	22	79%	22	66%	18	79%	10	72
4:00 PM	5:00 PM	66%	22	66%	18	66%	18	66%	8	66
5:00 PM	6:00 PM	67%	23	64%	18	67%	18	64%	8	67
6:00 PM	7:00 PM	70%	24	67%	19	70%	19	67%	9	71
7:00 PM	8:00 PM	78%	26	70%	19	78%	21	70%	9	75
8:00 PM	9:00 PM	77%	26	70%	19	77%	21	70%	9	75
9:00 PM	10:00 PM	80%	27	51%	14	80%	21	51%	7	69
10:00 PM	11:00 PM	82%	28	0%	-	82%	22	0%	-	50
11:00 PM	12:00 AM	88%	30	0%	-	88%	23	0%	-	53
								Peak Parking Demand		**78**

Notes:

1) "%of Peak Demand" based on Institute of Transportation Engineers (ITE) Parking Generation Manual, 5th Edition Land Use 220 - Multifamily Housing (Low-Rise) and Land Use 820 - Shopping Center Hourly Demand Distributions.

2) "Peak Hour Demand" assumes a 10% credit for proximity to the Beacon Metro North Train Station based on ITE data.

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Traffic & Parking Study

November 28, 2023
Revised January 26, 2024

45 Beekman Street & High Street
City of Beacon
Dutchess County, New York

Prepared for:

Beekman Arts Center LLC
Bay Ridge Studios LLC
268 Main Street
Beacon, NY 12508

Prepared by:

Richard G. D'Andrea, P.E., PTOE
New York Professional Engineer
License No. 090241

Joseph Muccin, P.E., PTOE
Senior Project Engineer

Colliers Engineering & Design
400 Columbus Avenue
Suite 180E
Valhalla New York 10595
Main: 877 627 3772
Colliersengineering.com

Project No. 23010468A

Colliers Engineering & Design

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I. Introduction

A. Project Description and Location

(Figure No. 1)

This report has been prepared to evaluate the potential traffic and parking related impacts associated with the proposed 45 Beekman and High Street mixed-use development in the City of Beacon, Dutchess County, New York (the "Project"). The Project is proposed to be developed on three (3) adjacent parcels, one (1) parcel that has frontage along Beekman Street that is presently improved by a 15,190 sq. ft commercia/retail building and associated parking areas. This parcel is setback from the ROW on North Avenue (NYS Route 9D), Tompkins Avenue and Beekman Street. The remaining two (2) vacant parcels are located along High Street, one of which is a corner lot fronting on both High Street and Beekman Street. The two (2) proposed mixed-use buildings are located entirely within the City of Beacon's Linkage ("L") Zoning District, however a very limited portion of the Project site, which includes the existing access driveway from Tompkins Avenue is classified within the R1-7.5 Zoning District.

The 45 Beekman Street parcel is proposed to consist of a 4-story building that will be comprised of approximately 8,670 square feet of commercial space and 2,410 square feet of tenant amenity space on the 1st Floor, together with 36 dwelling units on Floors 2-4. The lands generally comprising the existing High Street parcels are proposed to be improved by a 4-story building comprised of approximately 5,418 square feet of commercial space and 3,420 square feet of tenant amenity space on the 1st Floor, together with approximately 28 dwelling units on Floors 2-4. The 45 Beekman Street building will also include 34 garage parking spaces located below the proposed building. In total the Project will provide 83 off-street parking spaces including the 34 garage parking spaces and a total of 49 surface parking lot spaces. It is anticipated that all parking spaces will be shared amongst the two (2) buildings. As shown on Figure No. 1, access to the development is proposed via existing driveway connections to Tompkins Avenue and Beekman Street. Additionally, the Project proposes landscaping and streetscape improvements to be completed within the NYSDOT Right-of-Way along the Project's North Avenue (NYS Route 9D) frontage. A Design Year of 2026 has been utilized to assess the potential future traffic impacts of the Project.

It should be noted that the commercial space proposed within each building is not currently defined as strictly retail or office space. For the purposes of the analysis contained herein, it has been assumed that all commercial space will be retail space, which provides a somewhat conservative analysis of traffic and parking conditions.

This Traffic & Parking Study has been revised to account for updated parking data recently published by the Institute of Transportation Engineers (ITE) and contained in the ***Parking Generation Manual, 6th Edition.*** This revised Study also provides a shared parking analysis to account for the site's proximity to nearby Beacon Metro North Train Station as discussed further herein.

B. Scope of Study

This study has been prepared to identify current and future traffic operating and parking conditions on the surrounding roadway network and to assess the potential traffic and parking impacts of the proposed development.

All available traffic count data for the study area intersections were obtained from previous reports prepared by our office. These data were supplemented with new traffic counts collected by representatives of Colliers Engineering & Design CT, P.C. These data were also compared to count data obtained from the New York State Department of Transportation (NYSDOT). Together these data were utilized to establish the 2023 Existing Traffic Volumes representing existing traffic conditions in the vicinity of the site.

The 2023 Existing Traffic Volumes were then projected to a 2026 Design Year to take into account background traffic growth. In addition, traffic for other specific potential or approved developments in the area were estimated and then added to the Projected Traffic Volumes to obtain the 2026 No-Build Traffic Volumes.

Estimates were then made of the potential traffic that the proposed development would generate during each of the peak hours (see Section III-C for further discussion). The resulting site generated traffic volumes were then added to the roadway system and combined with the 2026 No-Build Traffic Volumes resulting in the 2026 Build Traffic Volumes.

The Existing, No-Build and Build Traffic Volumes were then compared to roadway capacities based on the procedures from the Highway Capacity Manual to determine existing and future Levels of Service and operating conditions. Recommendations for improvements were made where necessary to serve the existing and/or future traffic volumes.

In addition to the traffic analysis, the anticipated parking demand of the Project was computed based on the City Code requirements. The analysis of parking conditions for the Project included a shared parking analysis to assess the actual anticipated peak parking demand for the Project.

II. Existing Roadway and Traffic Descriptions

A. Project Description and Location

As shown on Figure No. 1, the Project will be accessed from Tompkins Avenue and Beekman Street via existing driveway connections. The following is a brief description of the roadways located within the study area. In addition, Section III-F provides a further description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service and any recommended improvements for each of the study area intersections. Appendix "D" contains copies of the capacity analyses which indicate the existing geometrics (including lane widths) and other characteristics for each of the individual intersections studied.

1. Wolcott Avenue/North Avenue (NYS Route 9D)

Wolcott Avenue/North Avenue (NYS Route 9D) is classified as an urban minor arterial roadway, which traverses in a generally north south direction throughout the City of Beacon. In the immediate vicinity of the Project, Wolcott Avenue/North Avenue consists of one lane in each direction with a center turn lane. There is no on-street parking along the roadway, but sidewalks are provided on both sides of the roadway. Within the study area Wolcott Avenue/North Avenue has signalized intersections with Verplanck Avenue, Beekman Street, Main Street and South Avenue. The posted speed limit within the City limits is 30 MPH.

It should be noted that the nearest bus stop to the Project site is located at the intersection of NYS Route 9D and Main Street. The Dutchess County Route B: Poughkeepsie Transit Hub to Beacon and Route G: Beacon Free Loop both make stops at this location.

2. Beekman Street

Beekman Street is a two-lane City roadway classified as an urban major collector roadway that originates at a signalized intersection with North Avenue north of the Project site. The roadway serves as a main access connection between North Avenue and the Beacon MetroNorth Train Station. Sidewalks are provided along the roadway on alternating sides of the roadway throughout its entire length. On-street parking is also provided along the east side of the roadway between North Avenue and River Street and then on the west side of the roadway between River Street and Railroad Avenue. The posted speed limit on Beekman Street is 30 MPH.

3. Tompkins Avenue

Tompkins Avenue is a two-lane City roadway that originates at an unsignalized intersection with North Avenue. One lane of travel is provided in both directions with no centerline striping. The roadway has a total pavement width of approximately 27-ft. and the City speed limit of 30 MPH prevails along the roadway. Sidewalks are provided along the south side of the roadway between North Avenue and Bank Street. On-street parking is permitted along both sides of the roadway but is limited to 4-hour parking between the hours of 6AM and 6PM.

4. **Verplanck Avenue**

   Verplanck Avenue is a two-lane City roadway classified as an urban major collector roadway that originates at a signalized intersection with North Avenue (NYS Route 9D) and continues southeast terminating at its intersection with Main Street. Sidewalks are provided along both sides of the roadway throughout its entire length. On-street parking is not provided along this roadway and the posted speed limit is 25 MPH.

B. 2023 Existing Traffic Volumes

(Figures No. 2 through 4, Appendix E)

Turning movement traffic counts were collected by representatives of Colliers Engineering & Design (CED) on Thursday, September 7, 2023, and Saturday, September 9, 2023, to determine the existing traffic volume conditions at the study area intersections during the anticipated peak operation of the Project. These traffic counts were then compared to traffic volume data from previous traffic studies conducted by our office and to traffic volume data available from the New York State Department of Transportation (NYSDOT) for the NYS Route 9D corridor. All relevant traffic volume data is provided in Appendix E for reference. Based on this information, the 2023 Existing Traffic Volumes were established for the Weekday Peak AM Hour, Weekday Peak PM Hour, and Saturday Peak Hour at the following study area intersections:

- North Avenue (NYS Route 9D) and Verplanck Avenue
- North Avenue (NYS Route 9D) and Tompkins Avenue/Ralph Street
- North Avenue (NYS Route 9D) and Beekman Street/W. Church Street
- Wolcott Avenue/North Avenue (NYS Route 9D) and Main Street/Municipal Plaza
- Beekman Street and High Street

Based upon a review of the traffic counts, the peak hours were generally identified as follows:

- Weekday Peak AM Hour — 7:30 AM – 8:30 AM
- Weekday Peak PM Hour — 4:15 PM – 5:15 PM
- Saturday Peak Hour — 1:00 PM – 2:00 PM

The resulting 2023 Existing Traffic Volumes are shown on Figures No. 2, 3, and 4 for the Weekday Peak AM Hour, Weekday Peak PM Peak Hour, and Saturday Peak Hour, respectively.

III. Evaluation of Future Traffic Conditions

A. 2026 No-Build Traffic Volumes

(Figure No. 5 through 13)

The 2023 Existing Traffic Volumes were increased by a growth factor of 2.0% per year to account for general background growth within the study area resulting in the 2026 Projected Traffic Volumes, which are shown on Figures No. 5, 6, and 7 for each of the Peak Hours. In addition, traffic from other specific potential and/or approved developments in the area including Mirbeau Beacon, 364 Main Street, Edgewater (Edgewater Place), Beacon Commons (16 West Main Street) and Prophecy Theater (1113 Wolcott Avenue) were identified. The resulting traffic volumes associated with these other developments are shown on Figures No. 8, 9, and 10 for each of the peak hours. These volumes were added to the 2026 Projected Traffic Volumes resulting in the 2026 No-Build Traffic Volumes which are shown on Figures No. 11, 12, and 13 for the AM, PM, and Saturday Peak Hours, respectively.

B. Site Generated Traffic Volumes

(Table No. 1, 1-A, 1-B, and 1-C, Appendix E)

Estimates of the amount of traffic to be generated by the proposed development during each of the peak hours were developed based on information published by the Institute of Transportation Engineers (ITE) as contained in the report entitled "Trip Generation", 11th Edition, 2021, based on Land Use Category – 220 – Multifamily Housing (Low Rise) and Land Use Category – 822 – Strip Retail Plaza (<40K). Table No. 1 summarizes the trip generation rates and corresponding site generated traffic volumes for the Weekday Peak AM, Weekday Peak PM and Saturday Peak Hours.

It is anticipated that some portion of the Project generated trips could remain internal to the site as trips may occur between the residential and commercial portions of the Project. In order to assess the potential internal trips, an internal capture analysis was conducted for each of the peak hours based on NCHRP 684 Internal Trip Capture Estimation Tool. This analysis is summarized in Tables No. 1-A, 1-B, and 1-C contained in Appendix B. The internal capture analysis results indicate that the internal capture percentage during the Weekday Peak PM and Saturday Peak Hours could approach as much as 25%, while little to no internal capture trips are anticipated during the Weekday AM Peak Hour. Based on this analysis, the traffic generation estimates presented in Table No. 1 account for a somewhat conservative internal capture percentage of 10% for the Weekday PM and Saturday Peak Hours applied to the commercial portions of the development only. No internal capture has been applied to the traffic generation estimates for the Weekday AM Peak Hour.

It should also be noted that the Project is located within approximately 2,000-ft. of the Beacon Metro-North Train Station and it is anticipated that a portion of the residents of the Project may utilize train transportation on a regular basis potentially reducing the daily and peak hour vehicular trips generated by the Project. Based on 2021 American Community Survey data for the City of Beacon available from the United States Census Bureau, approximately ten percent (10%) of Beacon residents utilize public transportation for their means of transportation to work and considering the proximity of the Project to the train station this percentage could be somewhat higher. The American Community Survey data also indicates that approximately four percent (4%) of Beacon residents walk or bike to work and ten percent (10%) of Beacon residents work from home. The referenced American Community Survey data is provided in Appendix E. However, no credit for these potential reductions in traffic generation has been accounted for in the analysis providing a somewhat conservative analysis of future traffic conditions associated with the Project.

C. Arrival/Departure Distribution

(Figures No. 14 through 17)

It was necessary to establish arrival and departure distributions to assign the site generated traffic volumes to the surrounding roadway network. Based on a review of the Existing Traffic Volumes and the expected travel patterns on the surrounding roadway network, the distributions were identified separately for the residential and commercial portions of the Project. The resulting anticipated residential arrival and departure distributions are shown on Figures No. 14 and 15, respectively while the commercial arrival and departure distributions are shown on Figures No. 16 and 17.

D. 2026 Build Conditions Traffic Volumes

(Figures No. 18 through 23)

The site generated traffic volumes were assigned to the roadway network based on the arrival and departure distributions referenced above. The resulting total site generated traffic volumes for each of the study area intersections are shown on Figures No. 18, 19, and 20 for each of the peak hours, respectively. The site generated traffic volumes were then added to the 2026 No-Build Traffic Volumes to obtain the 2026 Build Traffic Volumes. The resulting 2026 Build Traffic Volumes are shown on Figures No. 21, 22, and 23 for the Weekday Peak AM, Weekday Peak PM, and Saturday Peak Hours, respectively.

E. Description of Analysis Procedures

(Appendix C)

It was necessary to perform capacity analyses in order to determine existing and future traffic operating conditions at the study area intersections. The following is a brief description of the analysis method utilized in this report:

1. **Signalized Intersection Capacity Analysis**
   The capacity analysis for a signalized intersection was performed in accordance with the procedures described in the Highway Capacity Manual, 6th Edition, dated 2016, published by the Transportation Research Board. The terminology used in identifying traffic flow conditions is Levels of Service. A Level of Service "A" represents the best condition and a Level of Service "F" represents the worst condition. A Level of Service "C" is generally used as a design standard while a Level of Service "D" is acceptable during peak periods. A Level of Service "E" represents an operation near capacity. In order to identify an intersection's Level of Service, the average amount of vehicle delay is computed for each approach to the intersection as well as for the overall intersection.

2. **Unsignalized Intersection Capacity Analysis**
   The unsignalized intersection capacity analysis method utilized in this report was also performed in accordance with the procedures described in the Highway Capacity Manual, 6th Edition, dated 2016. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the Level of Service, the average amount of vehicle delay is computed for each critical movement to the intersection.

Additional information concerning signalized and unsignalized Levels of Service can be found in Appendix C of this report.

F. Results of Analysis

(Tables No. 2, TSW-1 and TSW-2, Appendix D & E)

Capacity analyses, which take into consideration appropriate truck percentages, pedestrian activity, roadway grades and other factors, were performed at the study area intersections utilizing the procedures described above to determine the Levels of Service and average vehicle delays. Summarized below are a description of the existing geometrics, traffic control and a summary of the existing and future Levels of Service as well as any recommended improvements.

Table No. 2 summarizes the results of the capacity analysis for the 2023 Existing, 2026 No-Build and 2026 Build Conditions. Appendix D contains copies of the capacity analysis which also indicate the existing geometrics (including lane widths) and other characteristics for each of the individual intersections studied. The traffic signal timing data for each of the signalized intersections has also been obtained from the NYSDOT and is provided in Appendix E for reference.

1. **North Avenue (NYS Route 9D) and Verplanck Avenue**

   North Avenue (NYS Route 9D) and Verplanck Avenue intersect at a "T"-shaped signalized intersection. The northbound North Avenue approach consists of a single shared through/right lane. The southbound North Avenue approach consists of a shared through/right lane and separate left turn lane with approximately 340 ft. of storage distance. The westbound Verplanck Avenue approach consists of an 85 ft. long separate left turn lane and a separate right turn lane. The intersection also has signalized pedestrian actuated crossings of the northbound and westbound approaches.

   Capacity analysis was conducted for this intersection utilizing the 2023 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at an overall Level of Service "B" during the each of the Peak Hours.

   The capacity analysis was recomputed using the 2026 No-Build and Build Traffic Volumes. These results indicate that the intersection is expected to continue to operate at an overall Level of Service "B" during the AM and Saturday Peak Hours while a Level of Service "C" will be experienced during the PM Peak Hour both with and without the Project.

2. **North Avenue (NYS Route 9D) and Tompkins Avenue/Ralph Street**

   North Avenue (NYS Route 9D) and Tompkins Avenue/Ralph Street intersect at a four-way intersection with Tompkins Avenue and Ralph Street controlled by stop-signs. The North Avenue approaches each consist of a shared through/right turn lane and separate left turn lane. The Tompkins Avenue and Ralph Street approaches each consist of one lane. Striped pedestrian crosswalks are present on the Tompkins Avenue and Ralph Street approaches.

   Capacity analysis was conducted for this intersection utilizing the 2023 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at a Level of Service "D" or better across all time periods.

   The capacity analysis was recomputed using the 2026 No-Build Traffic Volumes. These results indicate that the intersection is expected to operate at a Level of Service "F" for vehicles exiting Tompkins Avenue during all time periods. Similar operating conditions are also anticipated under future Build conditions with the Project.

   As part of the Edgewater development, this intersection was previously identified to be monitored for potential signalization after completion of that Project. In light of this, capacity analysis was conducted for the intersection under potential traffic signal control. These results indicate that the intersection would be expected to operate at an overall Level of Service "A" during each of the peak hours under future No-Build and Build conditions with traffic signal control.

A traffic signal warrant analysis has been conducted to further assess the potential need for a traffic signal at this intersection in the future. This analysis, which has been conducted in accordance with the Traffic Signal Warrant criteria specified in the Manual on Uniform Traffic Control Devices, assesses the intersection under future 2026 No-Build and 2026 Build Traffic Volume conditions. The No-Build conditions analysis is presented in Table TSW-1 while the Build conditions analysis is presented in Table TSW-2, both contained in Appendix B. Based on the results of the analysis, the intersection is projected to satisfy Warrant 2 – Four-Hour Vehicular under No-Build conditions regardless of the Project. Under future Build conditions, the intersection is projected to satisfy Warrant 1 Condition B – Minimum Vehicular Interruption of Continuous Traffic, Warrant 2 – Four-Hour Vehicular Volume and Warrant 3 – Peak Hour Volume.

Based on this analysis of future projected traffic volume conditions, it appears that a traffic signal may be warranted at the intersection upon completion of area projects and specifically the Edgewater Project and the 45 Beekman Street & High Street Project. It is the recommendation of CED that this intersection continue to be monitored after completion of these projects to assess the actual traffic volumes at that time. Signalization of this intersection would also require the review and approval of the NYSDOT. It should be noted that the critical volume for satisfaction of the traffic signal volume warrants at this intersection is the exiting volume from Tompkins Avenue. The Edgewater Project is estimated to contribute as much as 7-times the amount of traffic to the Tompkins Avenue exiting approach as the 45 Beekman Street & High Street Project. In fact, the 45 Beekman Street & High Street Project traffic is only estimated to be approximately 3.0% of the total traffic at this intersection during all peak time periods analyzed under future Build conditions.

3. **North Avenue (NYS Route 9D) and Beekman Street/W. Church Street**

North Avenue (NYS Route 9D) intersects with Beekman Street and W. Church Street at a full movement signalized intersection. The northbound and southbound approaches each consist of a separate left turn lane in each direction with a shared through/right turn lane. The Beekman Street eastbound approach consists of a shared left turn/through lane and an approximately 95 ft. long separate right turn lane. The westbound W. Church Street approach consists of a single lane for all movements. The intersection also has signalized pedestrian actuated crossings of the southbound, eastbound and westbound approaches. There is no pedestrian crossing on the northbound North Avenue approach.

Capacity analysis was conducted for this intersection utilizing the 2023 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at an overall Level of Service “F” during each of the peak hours analyzed. It should be noted that during the AM Peak Hour the southbound North Avenue approach experiences the longest delays as vehicles turn onto Beekman Street towards the Beacon Metro North train station. Conversely, during the PM Peak Hour, the eastbound Beekman Street approach experiences the longest delays resulting from exiting traffic from the train station. Furthermore, these

delays on the Beekman Street approach currently meter the release of traffic onto NYS Route 9D towards the I-84 interchange.

The capacity analysis was recomputed using the 2026 No-Build and Build Traffic Volumes. These results indicate that the intersection is expected to continue to operate at an overall Level of Service "F" during the each of the peak hours.

In order to address the existing and future delays at this intersection, traffic signal phasing and timing modifications have been identified that would improve the overall operations of the intersection. The traffic signal phasing modifications include changing the northbound and southbound left turn phases from a lagging left turn phase to a leading left turn phase. In addition, the eastbound and westbound approaches are proposed to be modified from concurrent operation to split phase operation. Associated signal timing modifications have also been identified. In addition, it is proposed to move the existing signalized pedestrian crossing of North Avenue from the north side of the intersection to the south side of intersection such that crossing pedestrians do not conflict with the traffic flows to and from Beekman Street at this intersection. Based on the analysis results, the intersection would be expected to operate at an overall Level of Service "C" during all time periods under future Build conditions. These signal timing and phasing modifications as well as the modifications to the pedestrian accommodations will require review and approval by NYSDOT and will require physical changes to the traffic signal equipment and intersections striping to be implemented under an NYSDOT Highway Work Permit.

4. **Wolcott Avenue/North Avenue (NYS Route 9D) and Main Street/Municipal Plaza**

Wolcott Avenue/North Avenue (NYS Route 9D) intersects with Main Street/Municipal Plaza at a full movement signalized intersection. The northbound and southbound approaches each consist of a separate left turn lane in each direction with a shared through/right turn lane. The eastbound City Hall approach consists of a shared left/through/right lane, while the westbound Main Street approach consists of a shared left/through lane and a separate right turn lane with a storage length of approximately 70 feet. The intersection also has signalized pedestrian actuated crossings on all approaches.

Capacity analysis was conducted for this intersection utilizing the 2023 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at an overall Level of Service "B" across all time periods.

The capacity analysis was recomputed using the 2026 No-Build and Build Traffic Volumes. These results indicate that the intersection is expected to continue to operate at an overall Level of Service "B" across all time periods.

In association with the traffic signal phasing and timing modifications at the Beekman Street/ W. Church Street intersection, corresponding traffic signal timing modifications are necessary at the Main Street/Municipal Plaza intersection since these two signals are currently coordinated. The traffic signal timing modifications for the Main Street/Municipal Plaza intersection have been identified to maintain coordination of the traffic signals. These modifications do not significantly change the traffic operating conditions at the intersection.

5. **Beekman Street and High Street**

Beekman Street and High Street intersect at a "T" type intersection with High Street is controlled by a stop-sign. All approaches to the intersection consist of one lane. Sidewalks are provided on all approaches on both sides of each road, and a crosswalk is present crossing the High Street approach. Left turns from Beekman Street onto High Street are currently prohibited.

Capacity analysis was conducted for this intersection utilizing the 2023 Existing Traffic Volumes. The analysis results indicate that the intersection is currently operating at a Level of Service "B" or better during the AM Peak Hour and Saturday Peak Hour, while operating at a Level of Service "A" during the PM Peak Hour.

The capacity analysis was recomputed using the 2026 No-Build and Build Traffic Volumes. These results indicate that the intersection is expected to continue to at a Level of Service "B" or better across all time periods.

6. **Beekman Street and Site Access**

The Project Site is currently accessed from Beekman Street via a driveway connection located approximately 200 feet east of High Street and 345 ft. west of North Avenue forming an unsignalized "T" type intersection. Each approach to the intersection consists of one lane. Sidewalks are provided on all approaches. This site access location will be maintained under the future Build conditions.

Capacity analysis was conducted for this intersection utilizing the 2026 Build Traffic Volumes. The analysis results indicate that the intersection is expected to operate at a Level of Service "B" or better during the AM Peak Hour and Saturday Peak Hour, while operating at a Level of Service "C" or better during the PM Peak Hour. Some pruning of vegetation on both sides of the driveway along the site frontage should be completed to ensure proper sight distance is provided.

Queueing conditions along Beekman Street from the North Avenue intersection have also been reviewed to assess potential impacts to vehicles entering and exiting the site driveway. Based on the traffic analysis results for the North Avenue/Beekman Street intersection with the proposed traffic signal improvements, queues on the Beekman Street eastbound approach from the North Avenue intersection are expected to be less than 300 ft. which will allow for the vehicles to enter and exit the site access driveway without conflict with queues along Beekman Street.

7. **Tompkins Avenue and Site Access**

   The Project Site is currently accessed from Tomkins Avenue via a driveway connection located approximately 60 feet west of North Avenue forming an unsignalized "T" type intersection. Each approach to the intersection consists of one lane. Sidewalks are provided on the south side of Tompkins Avenue in this area. This site access driveway location will be maintained under the future Build conditions.

   Capacity analysis was conducted for this intersection utilizing the 2026 Build Traffic Volumes. The analysis results indicate that the intersection is expected to operate at a Level of Service "A" across all time periods.

G. Beekman Street Complete Streets Analysis

(Appendix E)

The Dutchess County Transportation Council (DCTC) prepared a Complete Streets Analysis for Beekman Street dated January 29, 2018. Relevant pages of this analysis are contained in Appendix E for reference. CED has reviewed this analysis, which analyzes existing vehicular, pedestrian and bicycle accommodations along and around Beekman Street including pathways between Main Steet/North Avenue and the Beacon Metro-North Train Station. The analysis makes recommendations to improve pedestrian and bicycle access along Beekman Street and surrounding roadways, which include improved pedestrian crossings and pathways, protected bike lanes along Beekman Street, installation of bicycle "sharrows" along Beekman Street, North Avenue and other area roadways, etc. The Project as currently proposed would not prohibit any of the recommendations of the Beekman Street Complete Streets Analysis from being implemented. Furthermore, the modifications at the intersection of North Avenue/Beekman Street intersection will consider the recommendation of the DCTC study.

IV. Parking Evaluation

(Table P-1 & P-2, Appendix F)

As indicated previously, the Project development area falls within the City of Beacon Linkage District. The City of Beacon Zoning Code's (the "Zoning Code") provides specific parking requirements for Linkage District development as specified in Section 223-41.21.F. Based on the Zoning Code, 1 space is required for every residential dwelling unit, and 3 spaces are required for every 1,000 square feet of retail commercial space. The relevant code section is provided in Appendix F for reference. Exhibit No. 1 below summarizes the total parking requirements for the Project based on the City Code. It should be noted, and as previously indicated, it has been assumed that all commercial space will be retail space rather than office space, which provides a somewhat conservative analysis of traffic and parking conditions.

Exhibit No. 1 – City of Beacon Code Required Parking

Proposed Use	Size	City of Beacon Code Requirement[1]	Required Spaces
45 Beekman Street			
Residential	36 Dwelling Units	1 Space/Dwelling Unit	36 Spaces
Retail Commercial	8,670 sq. ft.	3 Space/1,000 Sq. Ft.	27 Spaces
High Street			
Residential	28 Dwelling Units	1 Space/Dwelling Unit	28 Spaces
Retail Commercial	5,418 sq. ft.	1 Space/Dwelling Unit	17 Spaces
		Total Required Parking Spaces	**108 Spaces**

Notes:
1. City of Beacon Code Requirement parking ratios based on Section 223-41.21.F of the City Code.

As indicated in the table, the Project is currently required to have a total of 108 off-street parking spaces per the City Code. As noted above, the Project currently proposes 83 off-street parking spaces, including 34 garages spaces within the 45 Beekman Street building and 49 surface lot parking spaces, which will result in the Project being deficient by 22 parking spaces per the current City Code requirements. It should be noted that all parking spaces are anticipated to be shared spaces with no spaces designated specifically for residential or commercial uses. CED is monitoring the City Council's current draft amendments to the City's Parking Regulations that could impact the total amount of off-street parking spaces required for a mixed-use project.

The City of Beacon Zoning Code allows for the Planning Board to modify off-street parking requirements in the L District. Specifically, City Code Section 223-41.21.F.(3) indicates… *The quantity of required on-site parking in Subsection F(2) above may be modified by the Planning Board, in its discretion, based upon information submitted by the applicant or otherwise made available to the Planning Board in the public record, demonstrating one or more of the following:*

(a) That the projected operational characteristics of the proposed use and/or its proximity within walking distance of the train station and other services justify a reduction in the required amount of parking.
(b) That adequate shared parking, contractually obligated for the duration of the proposed use, is available within 500 feet of the site and in the L District.
(c) That the applicant has provided sufficient bicycle parking to reduce anticipated vehicular travel demand, as supported by a professional parking study.
(d) That there is sufficient public parking available within 800 feet of the site and in the L District to meet foreseeable parking needs of the proposed use and surrounding uses for the duration of the proposed use.
(e) That the applicant will voluntarily dedicate land for public parking on site or will acquire land by purchase or long-term lease (for the duration of the proposed use) within 800 feet of the site and in the L District and voluntarily dedicate such land to the City for public parking.
(f) That a professional parking study of the proposed use and the surrounding area demonstrates that a different amount of parking would be appropriate for the use in its particular location and/or that existing and/or proposed off-site parking is sufficient.

Item (a) above applies to the Project since it is located within approximately 2,000 ft. of the Beacon Metro-North Train Station. The previously referenced 2021 American Community Survey data for the City of Beacon indicates that approximately ten percent (10%) of Beacon residents utilize public transportation, which could be somewhat higher for the Project given its proximity to the train station. (See further discussion of train usage below.) In addition, the American Community Survey data indicates that approximately five (5%) of Beacon residents do not own a vehicle. Item (c) also applies as the Project plans provide bicycle racks in the vicinity of both proposed buildings.

Furthermore, in support of Item (b) & (f) and in order to assess the total parking requirement for the Project based on the variation of time of use of the parking spaces for each use proposed within the Project, a shared parking analysis was conducted to determine the total anticipated parking demand on an hourly basis. This analysis accounts for variations in parking demand over the course of the day for each of the proposed uses to determine a total parking demand for the Project. Hourly parking demand distributions for a typical Weekday and Saturday as published by the Institute of Transportation Engineers (ITE) contained in the ***Parking Generation Manual, 6th Edition*** were applied to the City Code required parking requirements to conduct this shared parking analysis. ITE provides parking demand distributions on an hourly basis for Land Use 220 – Multifamily Housing (Low-Rise) and Land Use 822 – Strip Retail Plaza (<40k)). The hourly distribution data for each land use is provided in Appendix G for reference.

The resulting Shared Parking Analysis is summarized in Tables P-1 and P-2 for Weekday and Saturday conditions, respectively. As indicated in the tables, the peak parking demand for the Project when accounting for the shared use of parking between the residential and commercial uses will result in a total parking demand of 78 parking spaces on a weekday, occurring between 7PM – 8PM and 87 parking spaces on a Saturday also occurring between 1PM – 2PM. It should also be noted that the parking analysis does not take any credit for the potential of internal trips between the residential units and commercial space, which was estimated to be as much as ten percent (10%) as noted in Section III.B above and would result in some reductions in overall parking demand.

Furthermore, the Shared Parking Analysis presented in Tables P-1 and P-2 does not take credit for the proximity of the Project to the nearby Beacon Metro North Train Station (approximately 1,900 ft./0.36-mile walking distance). As indicated previously, approximately ten percent (10%) of Beacon residents utilize public transportation for their means of transportation to work. Moreover, ITE data for Land Use 220 – Multifamily Housing (Low-Rise) indicates that parking demand ratios for multifamily residential buildings within ½ mile of commuter rail have an average parking demand approximately 10-12% less than those multifamily buildings outside the ½ proximity. In recognition of this data, a further shared parking analysis was conducted accounting for the Project's proximity to the train station utilizing at 10% credit applied to the residential portions of the Project. This analysis is summarized in Tables P-1A and P-2A for Weekday and Saturday conditions, respectively. As indicated in the tables, the peak parking demand for the Project when accounting for the shared use of parking between the residential and commercial uses and the proximity to the train station will result in a total parking demand of 74 parking spaces on a weekday, occurring between 7PM – 8PM and 83 parking spaces on a Saturday also occurring between 1PM – 2PM. Based on this shared parking analysis, it is anticipated that the 83 proposed on-site parking spaces will satisfy the total anticipated parking demand for the Project.

Based on this analysis as well as the provision of bicycle parking/storage, as permitted by City Code Section 223-41.21.F.(3), the Applicant is requesting that the Planning Board consider approval of the joint use of parking spaces for the Project and approve a modification to the overall parking requirement for the Project down to the 83 proposed parking spaces to be provided.

V. Summary and Conclusion

The traffic analysis summarized herein provides a somewhat conservative analysis of future traffic conditions since no credit has been taken for the potential reduction in the Project's traffic generation resulting from with the Project's proximity to the Beacon Metro North train station. It is anticipated that a portion of the Project residents will utilize the nearby public transportation on a regular basis reducing the overall vehicle trips generated by the Project. Based on this conservative analysis summarized above, the additional Project generated traffic is not anticipated to have a significant impact on traffic conditions in the vicinity of the site, however several the following recommendations have been identified to accommodate both existing and future traffic associated with the Project and other area projects currently under development.

- Consistent with previous findings for the North Avenue (NYS Route 9D) at Tompkins Avenue/Ralph Street intersection, this intersection should be monitored after substantial completion of this Project and other area projects to assess the actual traffic volumes at that time. Signalization of this intersection would require the review and approval of the NYSDOT.
- Traffic signal phasing and timing modifications should be considered for the intersection of North Avenue (NYS Route 9D) at Beekman Street/Church Street to improve the overall operation of the intersection and specifically the southbound North Avenue and eastbound Beekman Street approaches. In addition, it is proposed to move the existing signalized pedestrian crossing of North Avenue from the north side of the intersection to the south side of intersection such that crossing pedestrians do not conflict with the traffic flows to and from Beekman Street at this intersection. These will require review and approval by NYSDOT and will need to be implemented under an NYSDOT Highway Work Permit.
- Traffic signal timing modifications have also been identified for the intersection of North Avenue (NYS Route 9D) at Main Street/Municipal Plaza. These traffic signal timing modifications for the Main Street/Municipal Plaza intersection have been identified to maintain coordination of the traffic signal with the North Avenue (NYS Route 9D) at Beekman Street/Church Street.

With the above identified mitigation measures, it is the opinion of Colliers Engineering & Design that the Project will not have any potentially significant adverse environmental impacts on traffic operating conditions in the vicinity of the site and that the proposed mitigation measures will help to address existing deficiencies in the area.

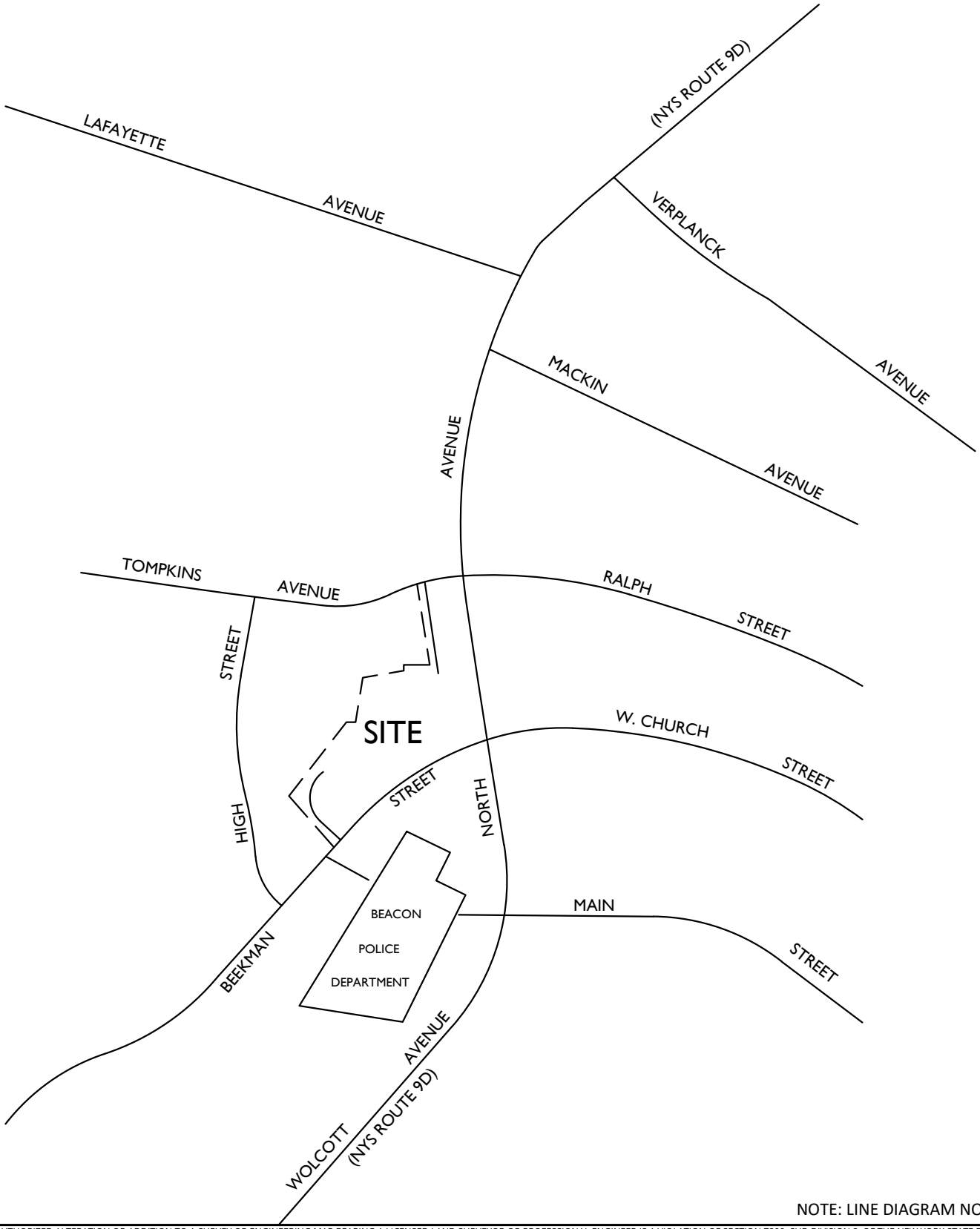
In addition, the parking analysis indicates that the Project will provide sufficient parking to accommodate the residential and commercial uses on-site based on the summarized shared parking analysis, the proximity to the train station and the provision of bicycle parking on the site. Based on this analysis as permitted by City Code Section 223-41.21.F.(3), the Applicant is requesting that the Planning Board consider approval of the joint use of parking spaces for the Project and approve a modification to the overall parking requirement for the Project down to the 83 proposed parking spaces to be provided.

Lastly, the Project proposes landscaping and streetscape improvements to be completed within the NYSDOT Right-of-Way along the Project's North Avenue (NYS Route 9D) frontage. These improvements will require review and approval of the NYSDOT under a Use & Occupancy Permit and a Highway Work Permit for the installation of the improvements.

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Traffic & Parking Study

Appendix A | Traffic Figures



NOTE: LINE DIAGRAM NOT TO SCALE

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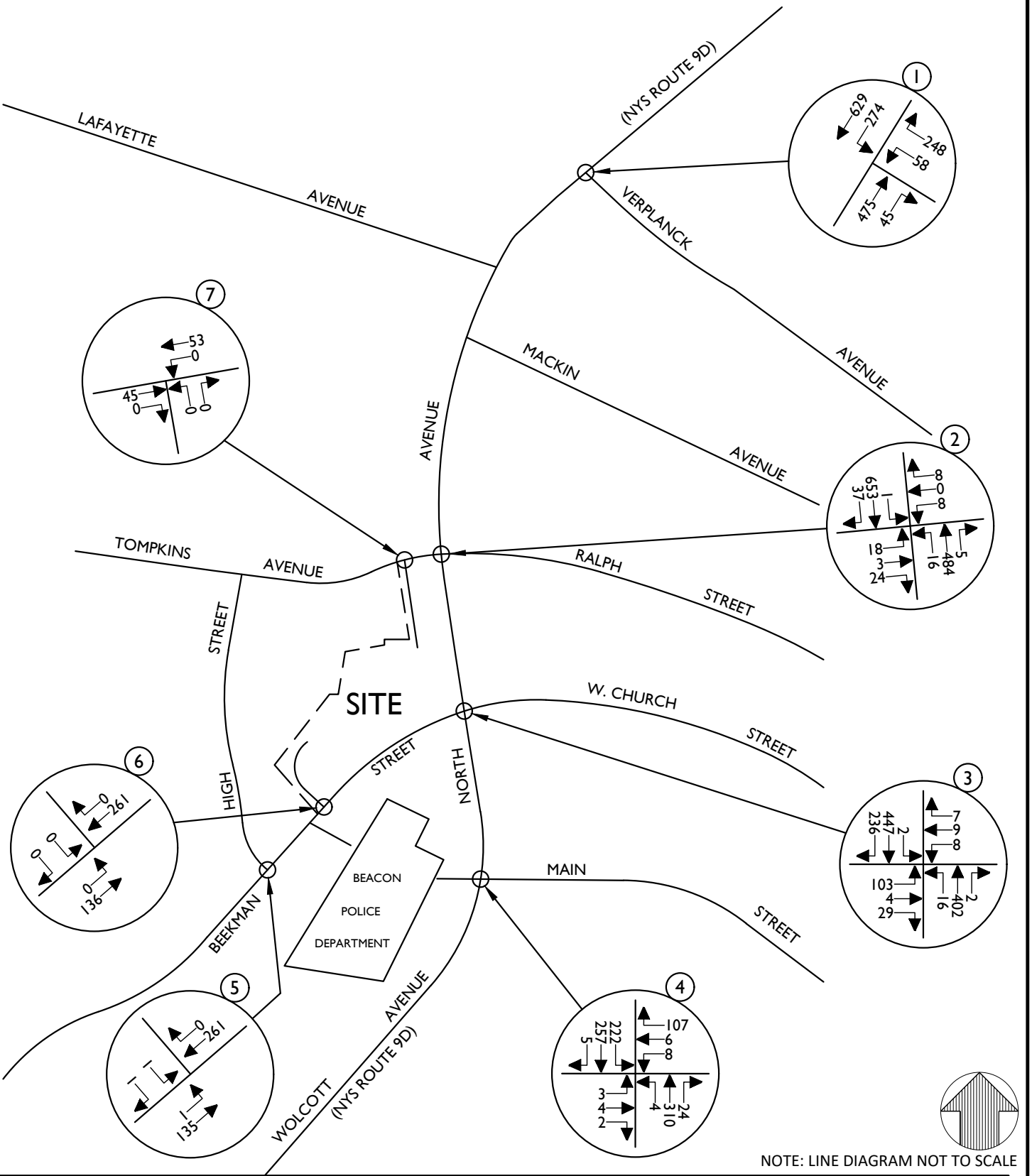
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SITE LOCATION MAP

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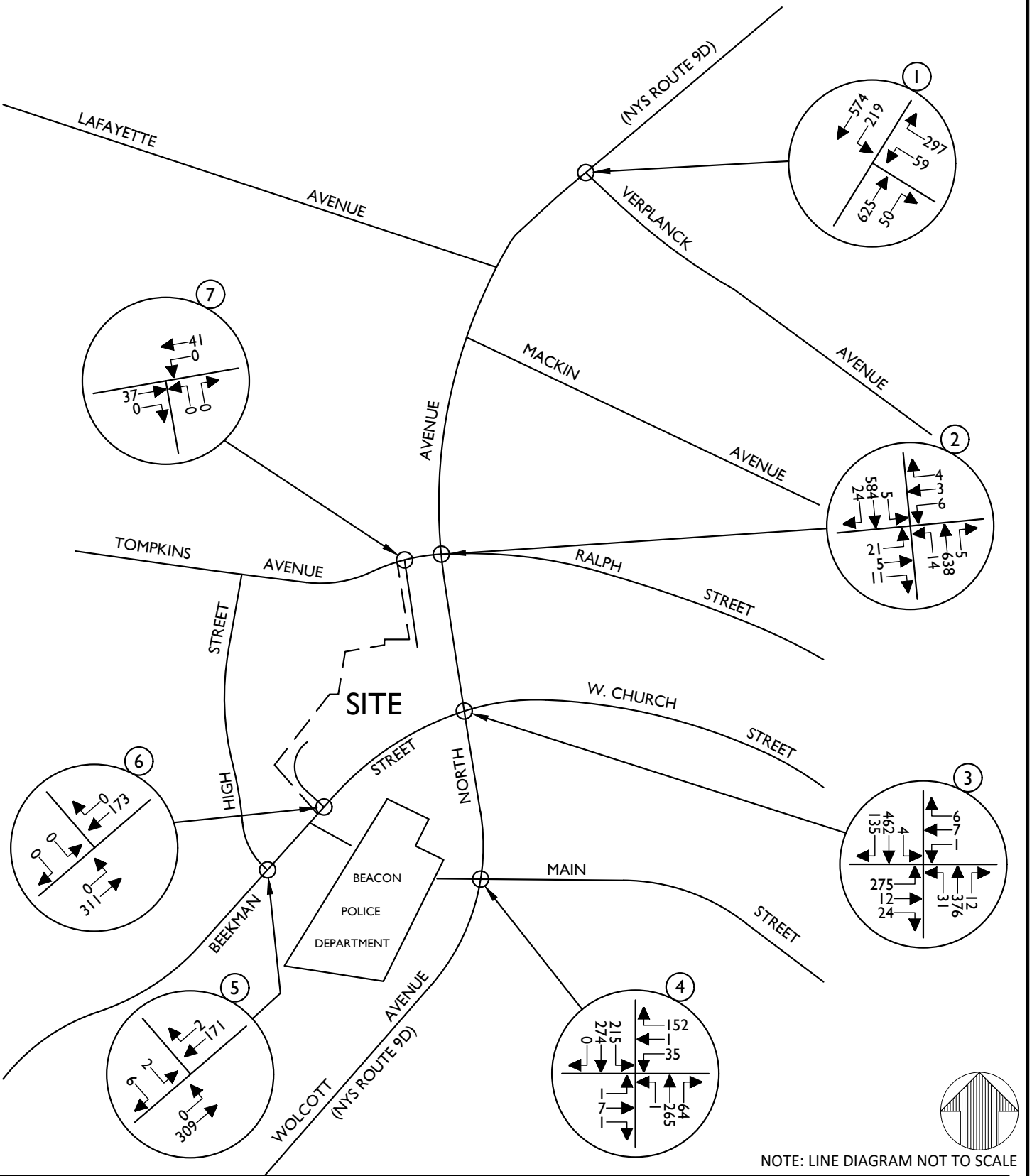
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2023 EXISTING TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

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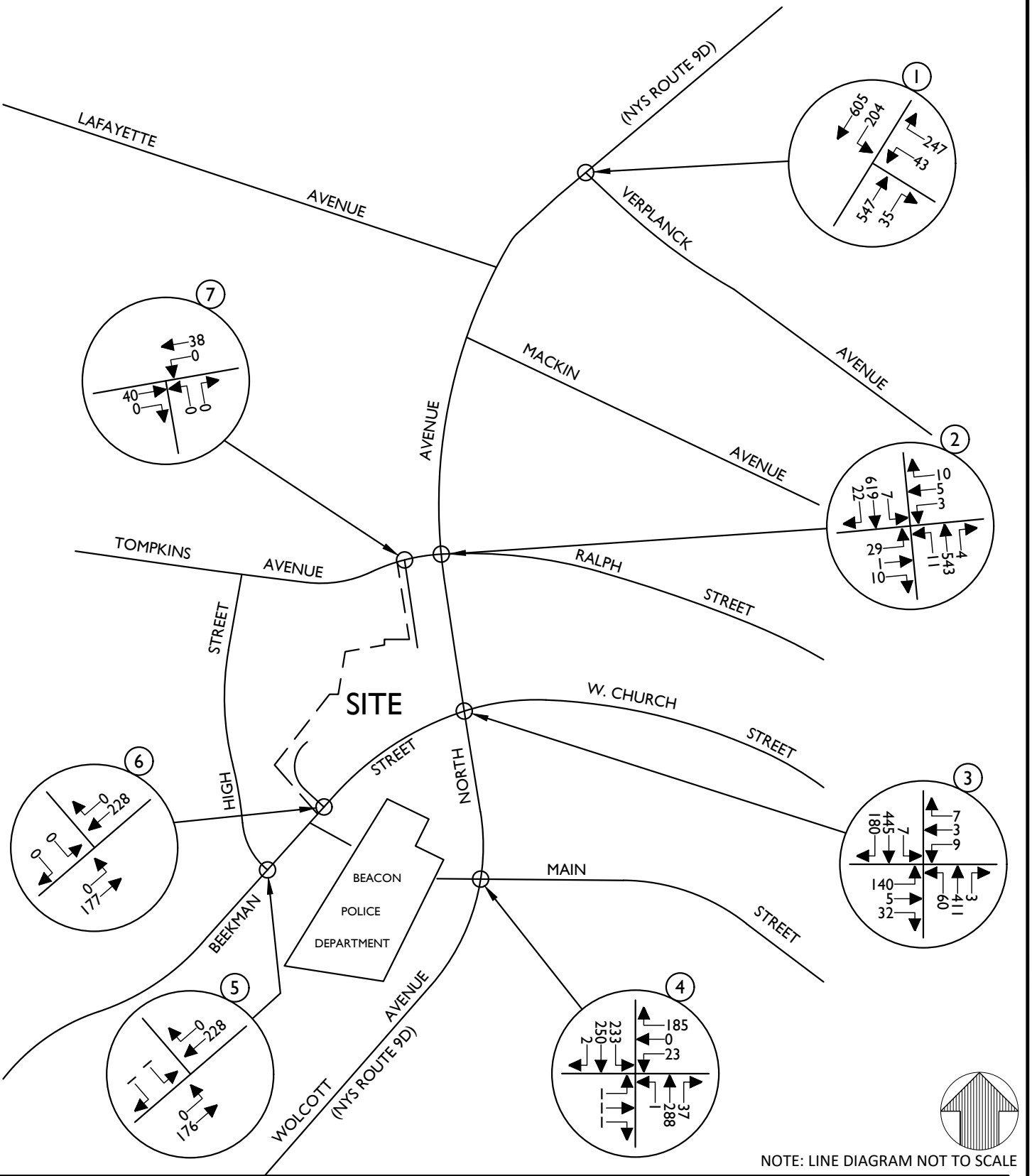
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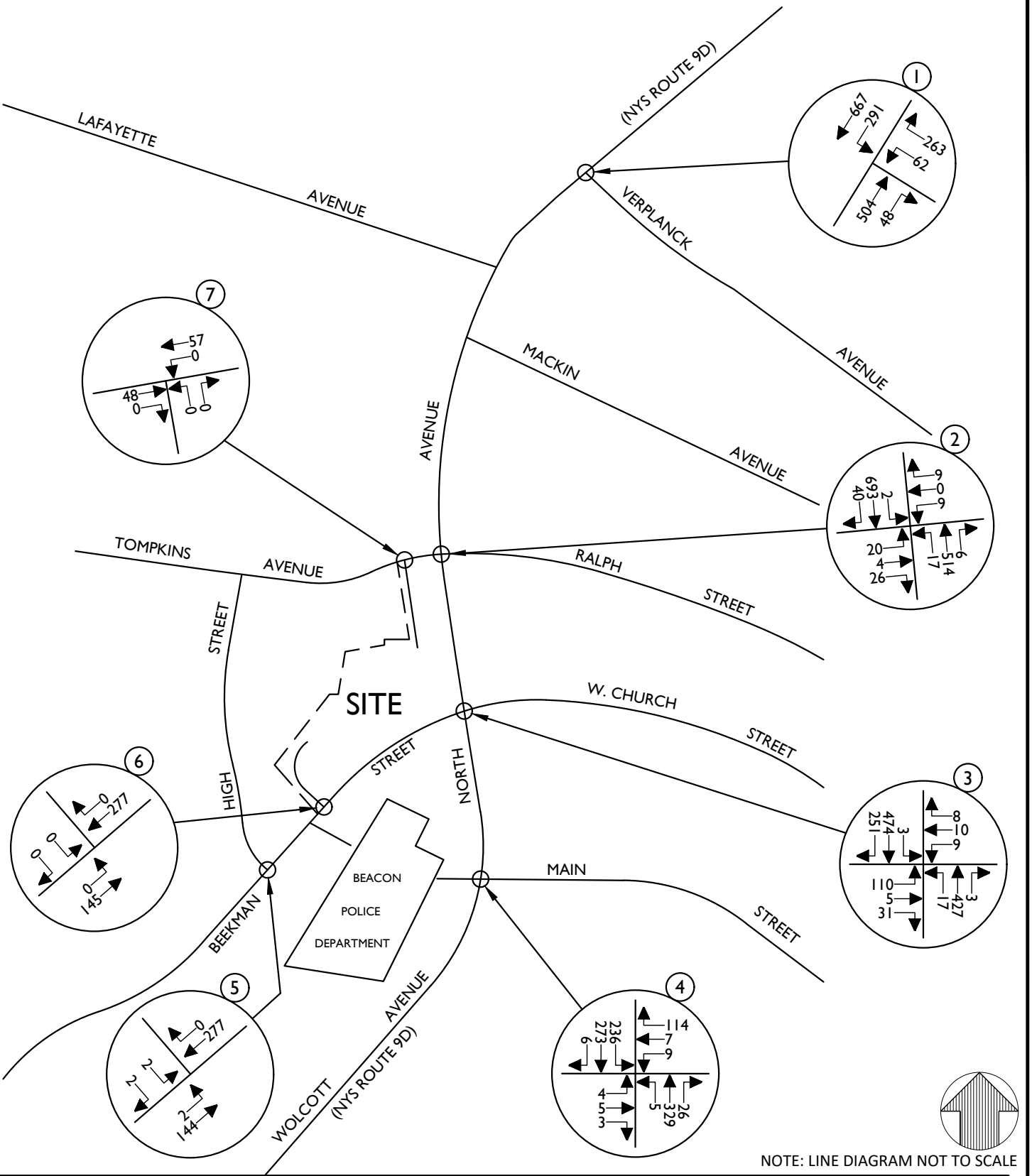
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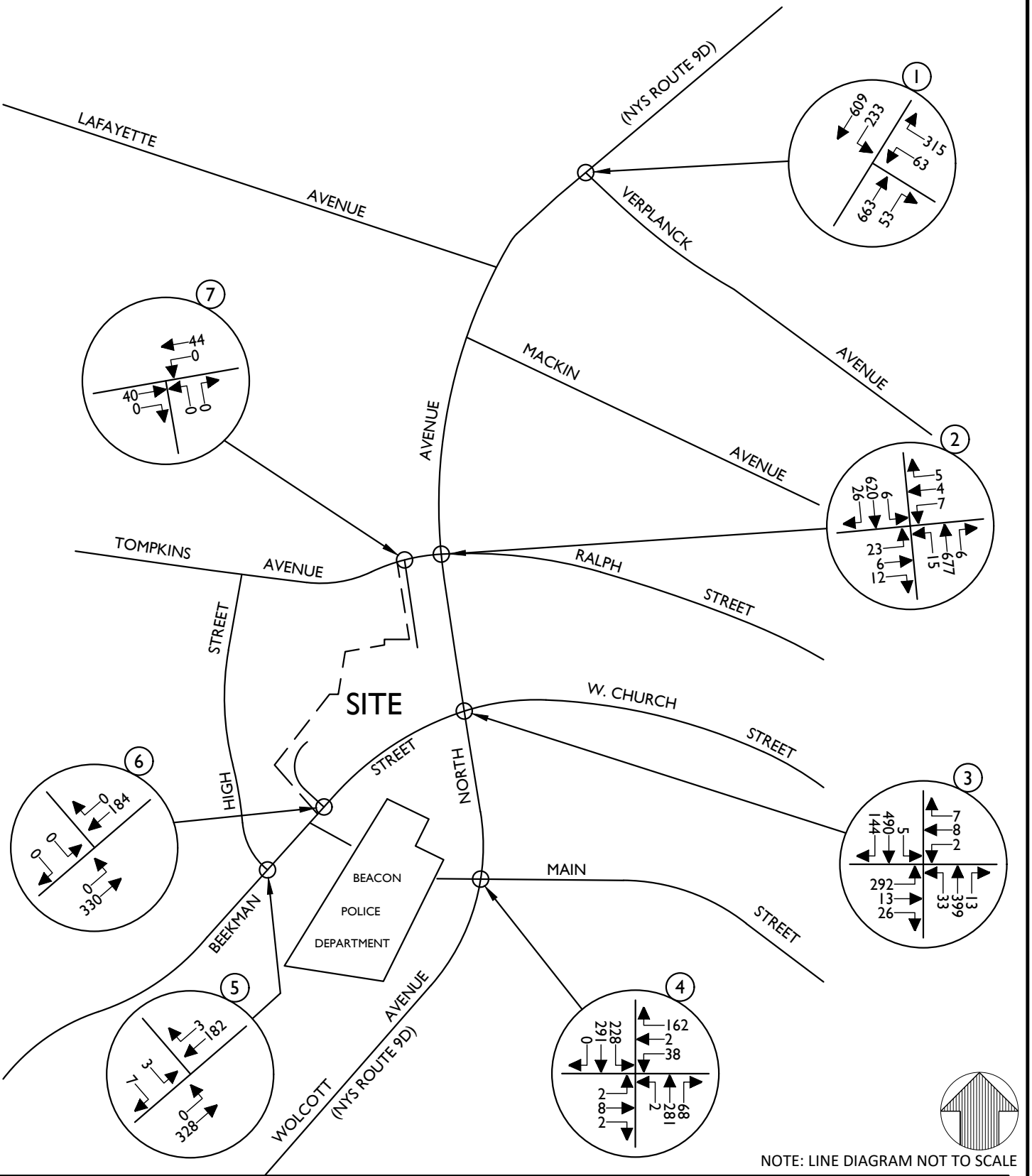
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2026 PROJECTED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

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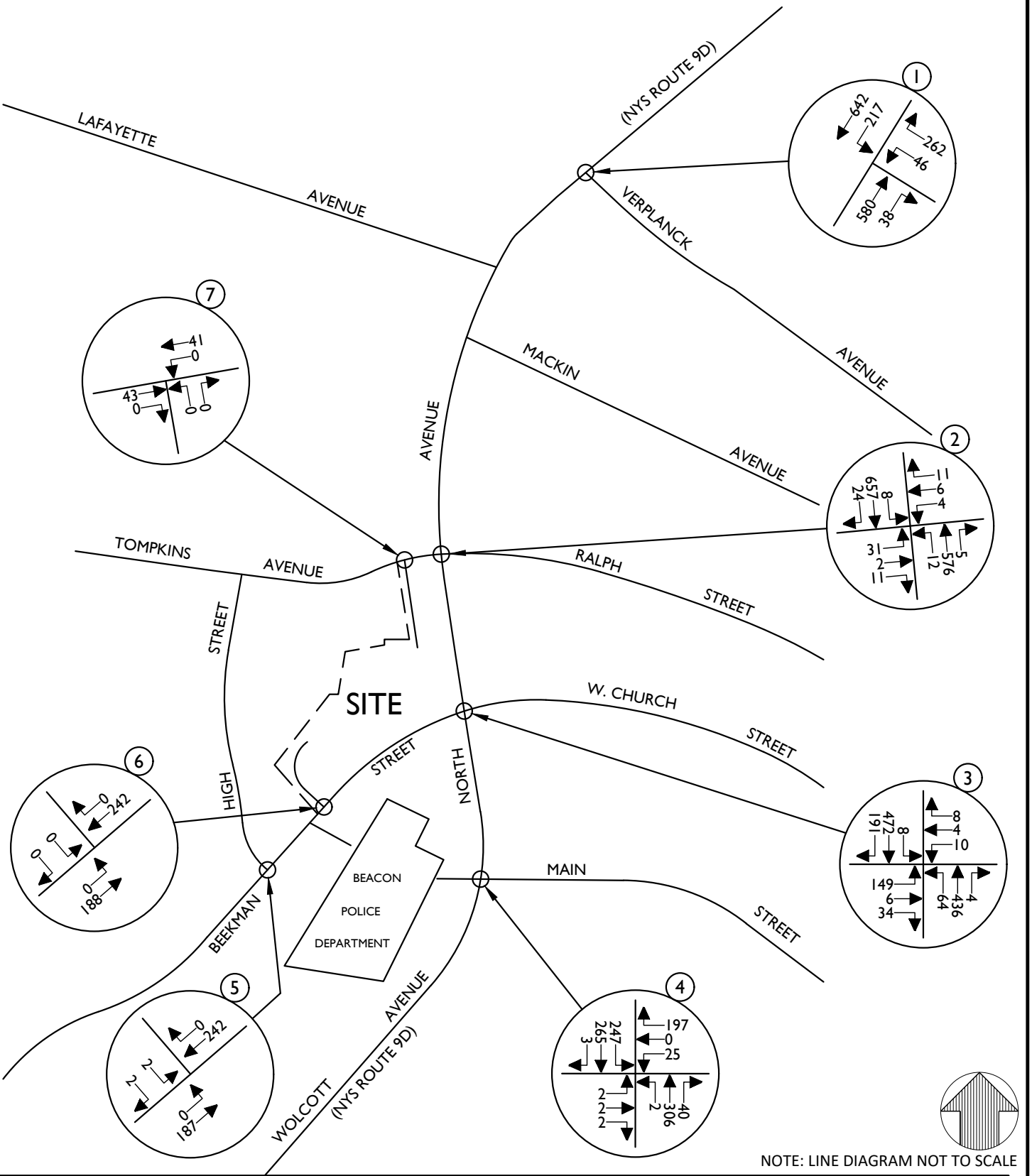
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WEEKDAY PEAK PM HOUR

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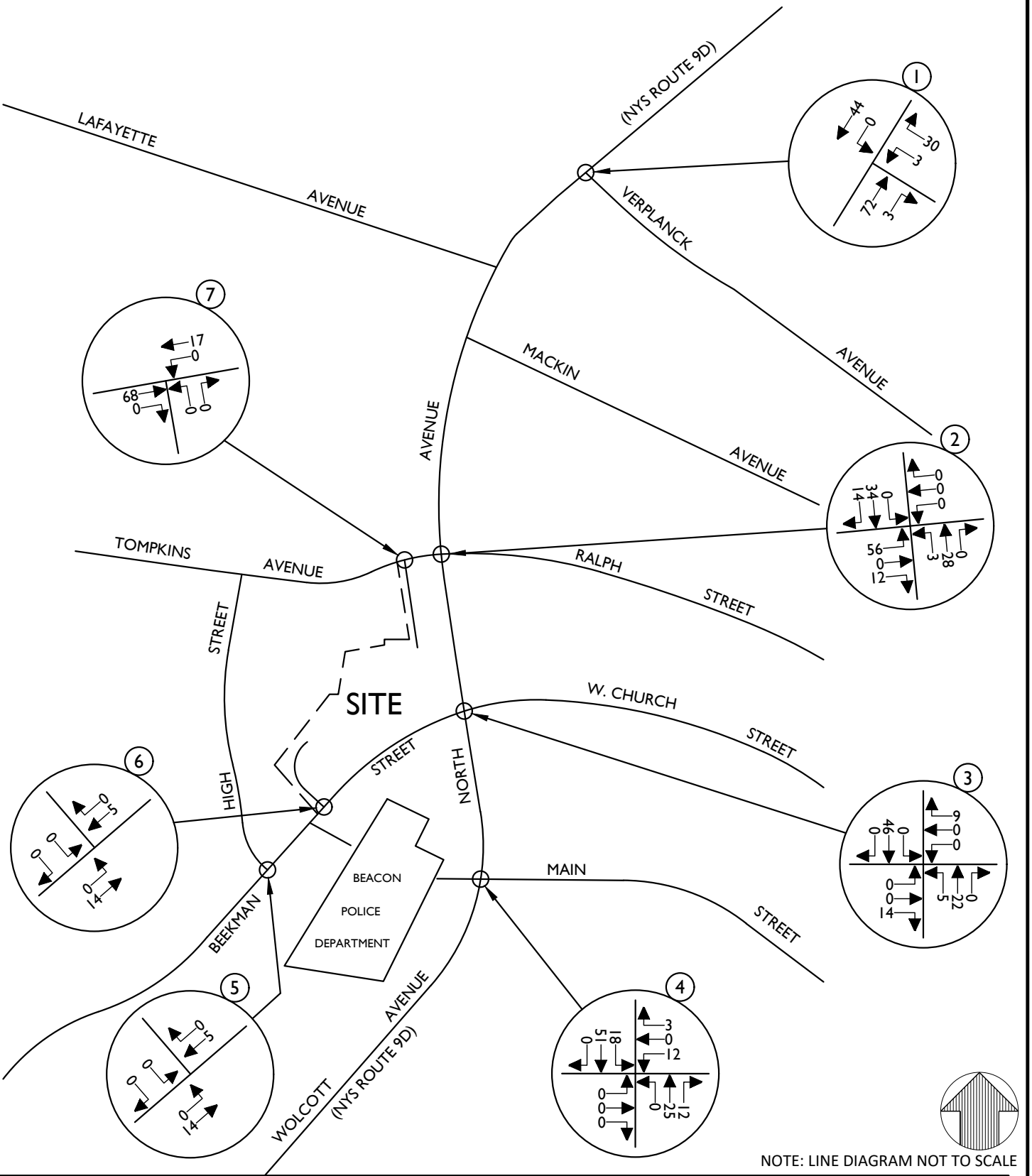
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2026 PROJECTED TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR

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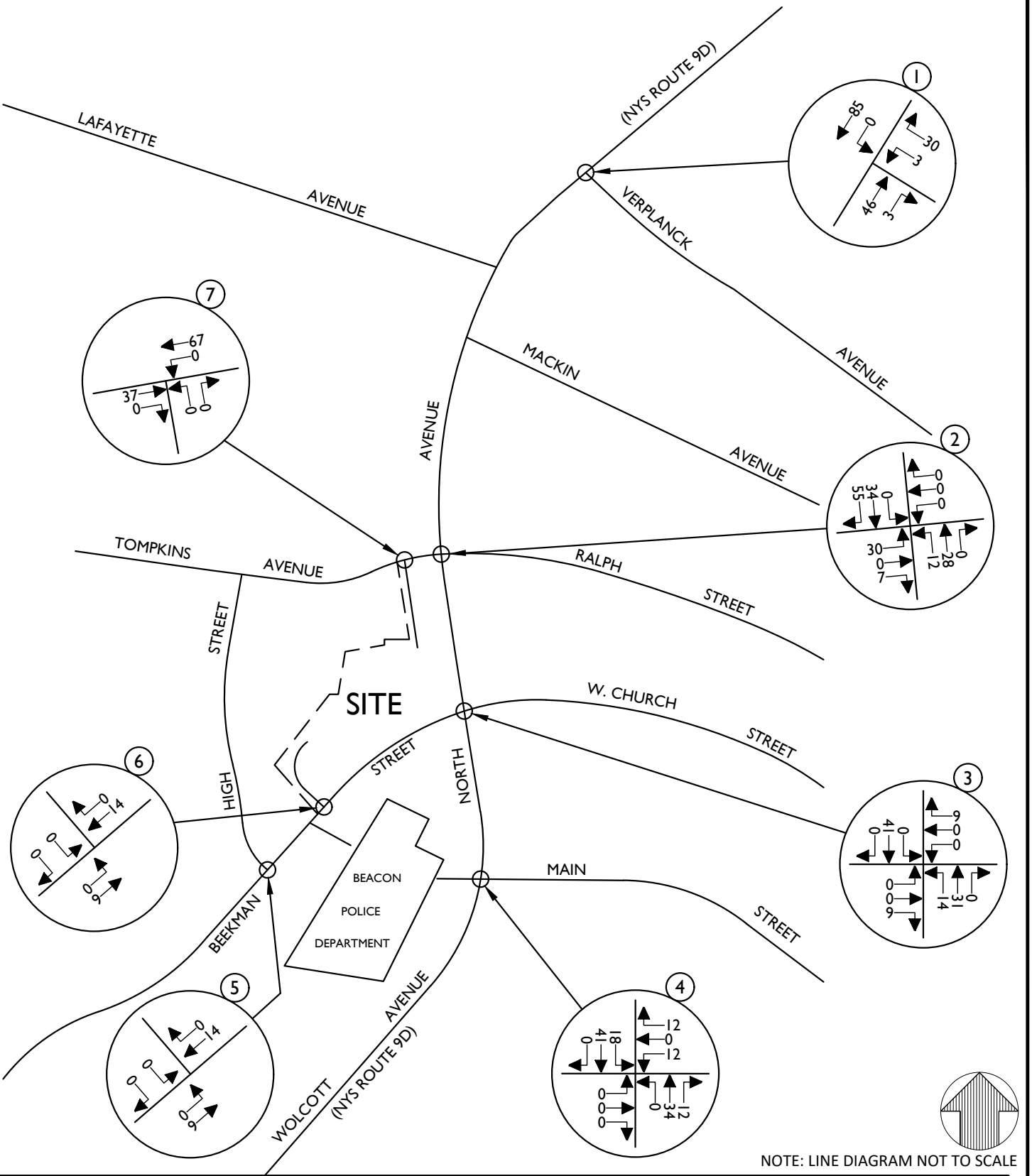
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OTHER DEVELOPMENT
TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

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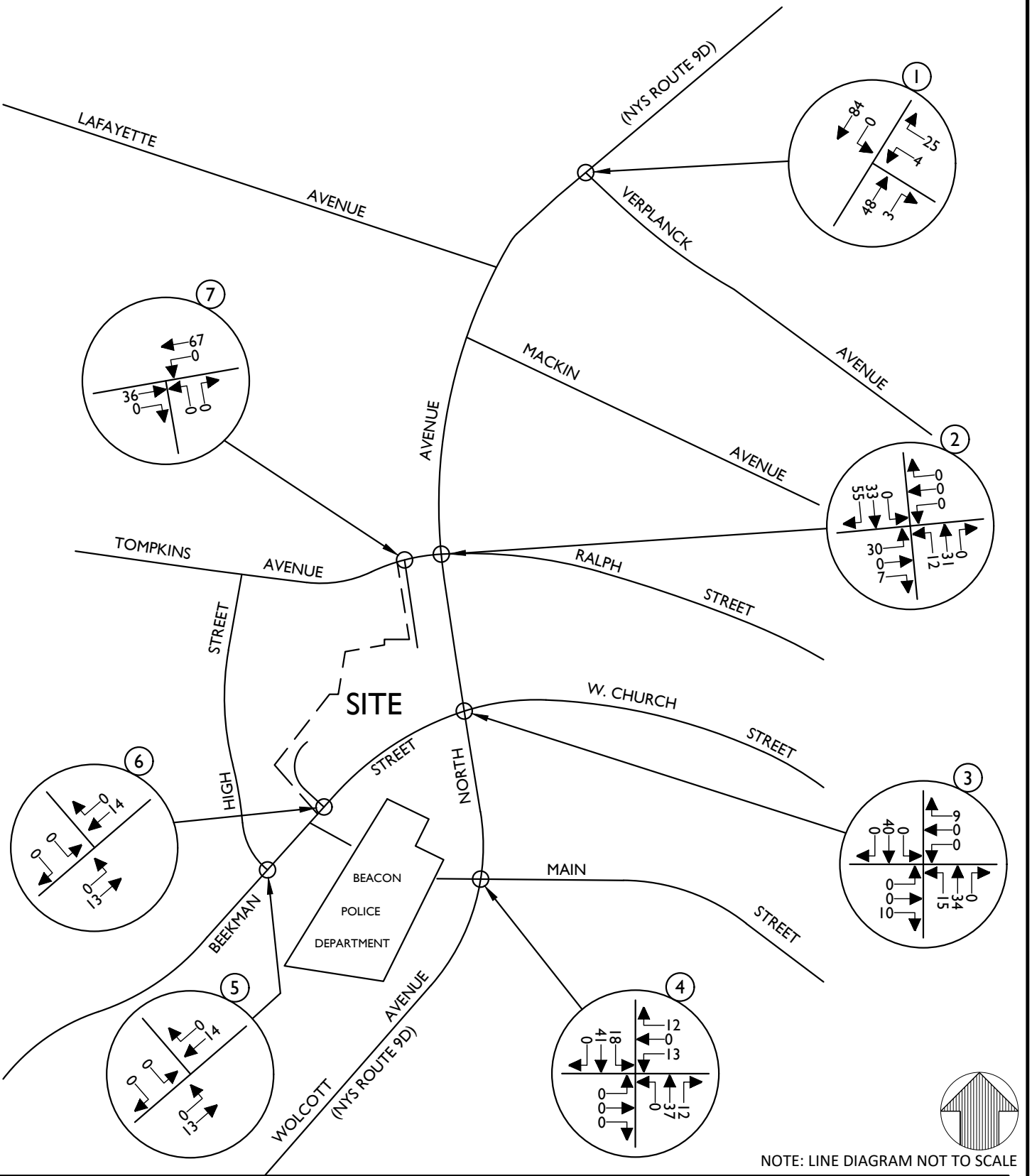
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WEEKDAY PEAK PM HOUR

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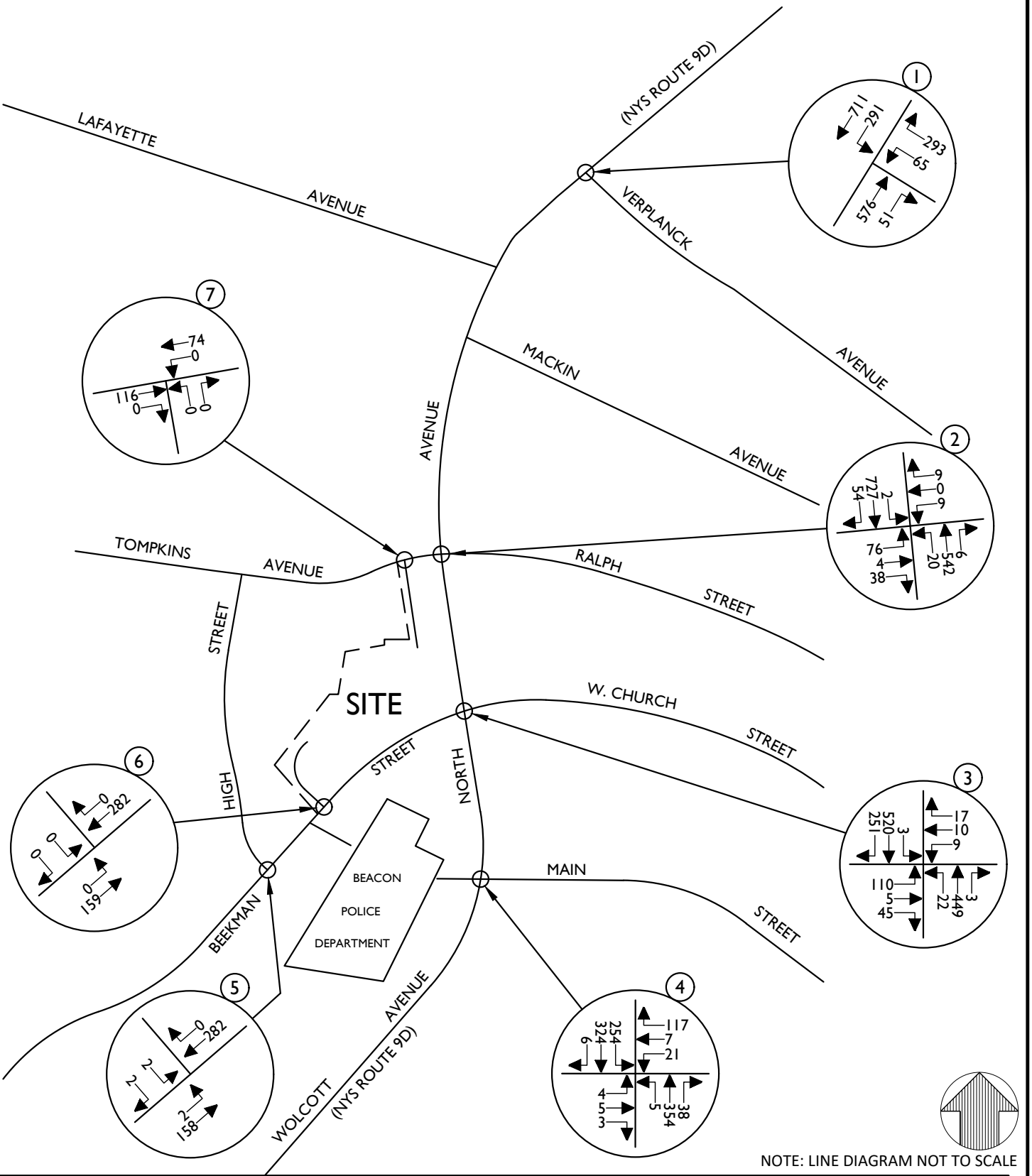
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SHEET TITLE: FIELD BOOK: XX PAGE:XX
OTHER DEVELOPMENT
TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR

SHEET NUMBER: 10

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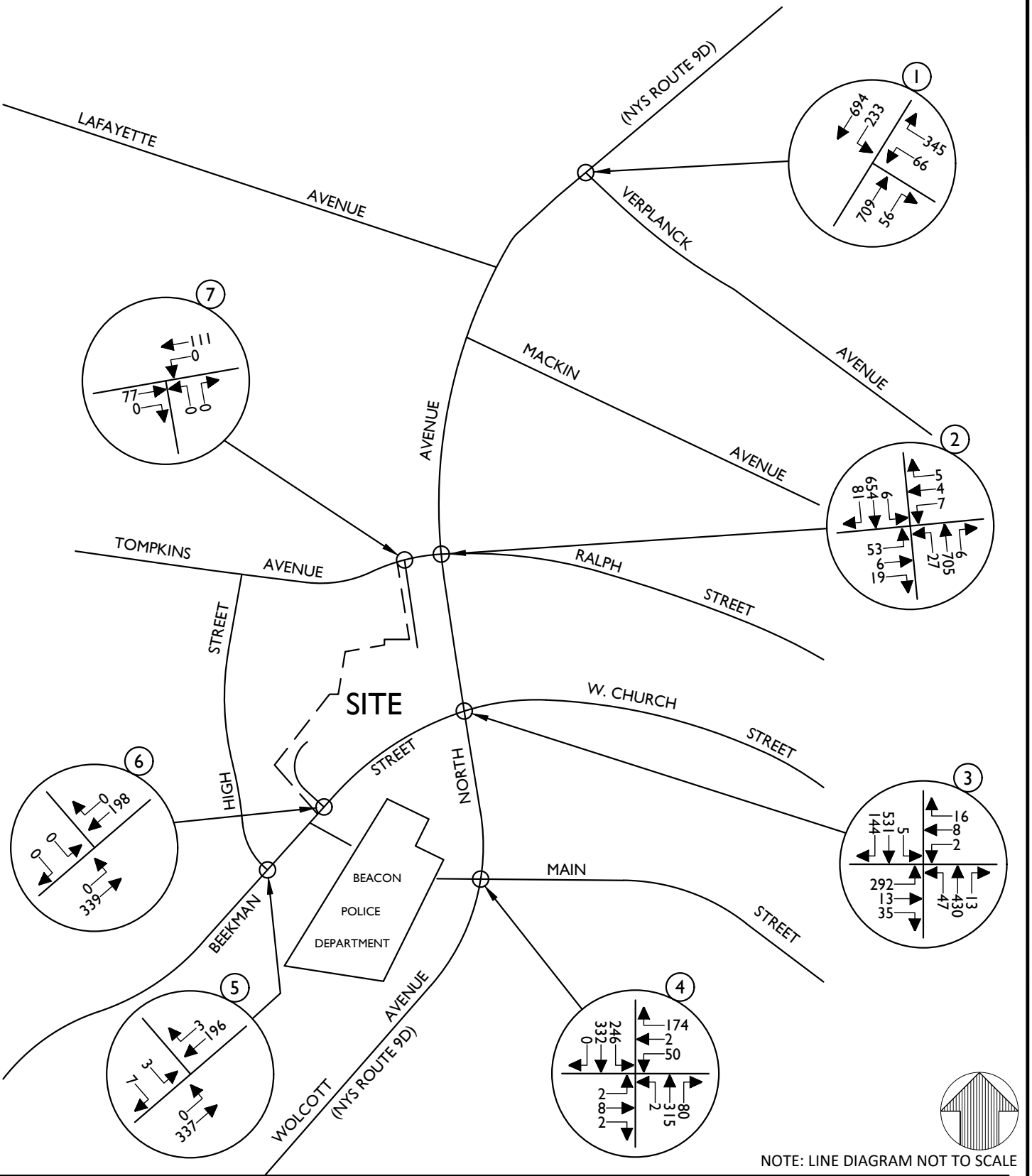
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SHEET TITLE: FIELD BOOK: XX PAGE:XX

2026 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER: 11

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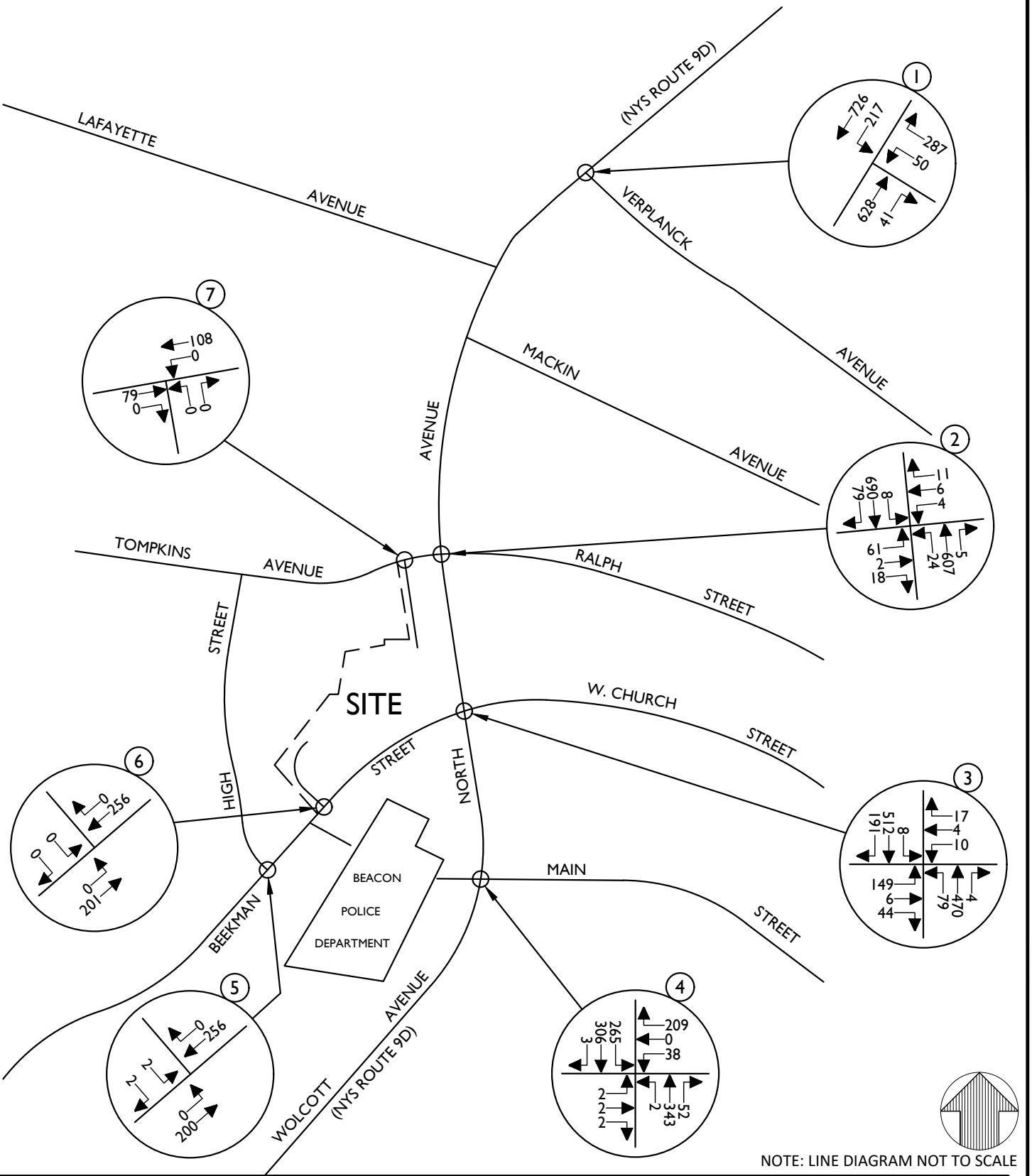
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2026 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER: 12

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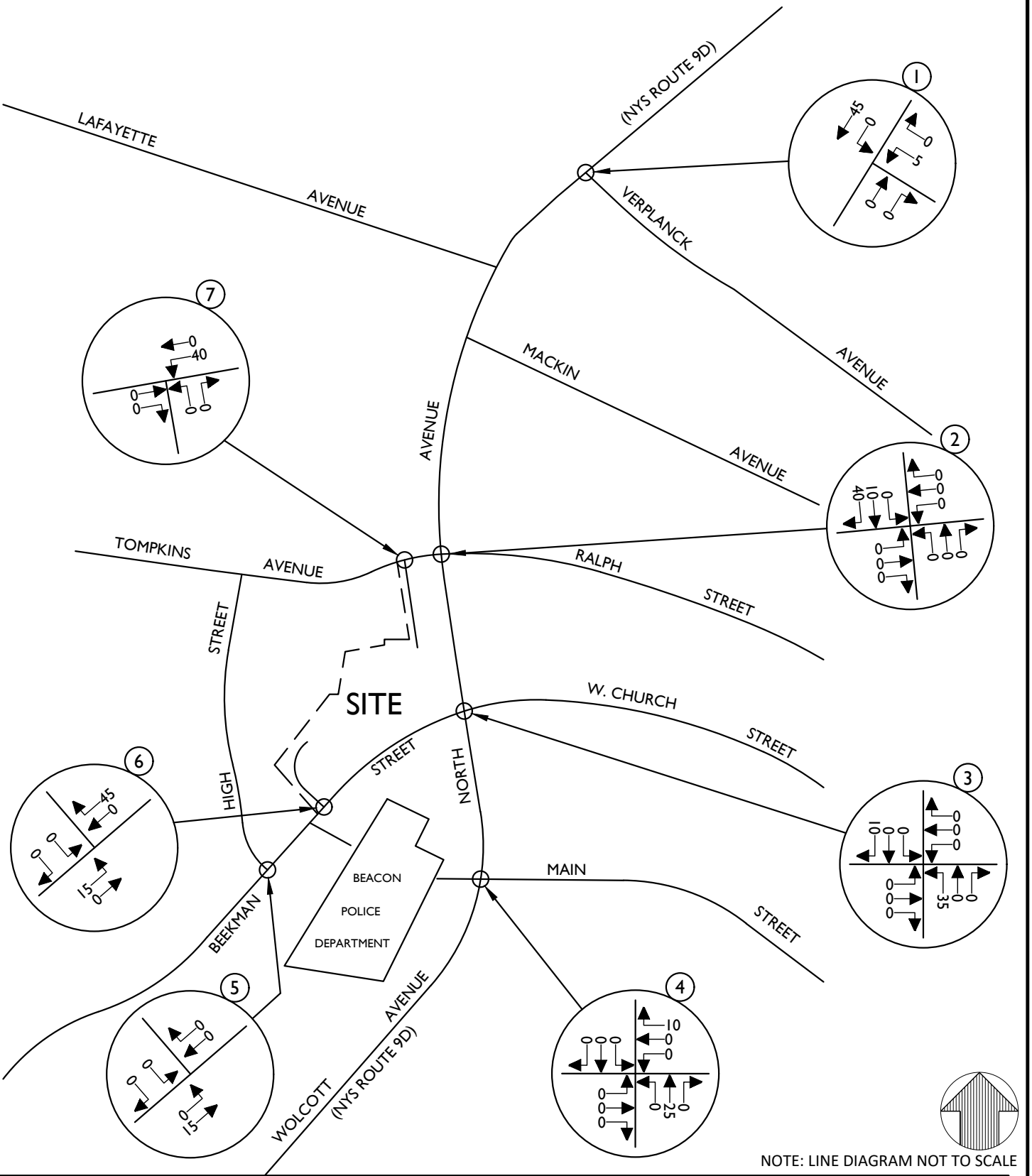
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2026 NO-BUILD TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR

SHEET NUMBER: 13

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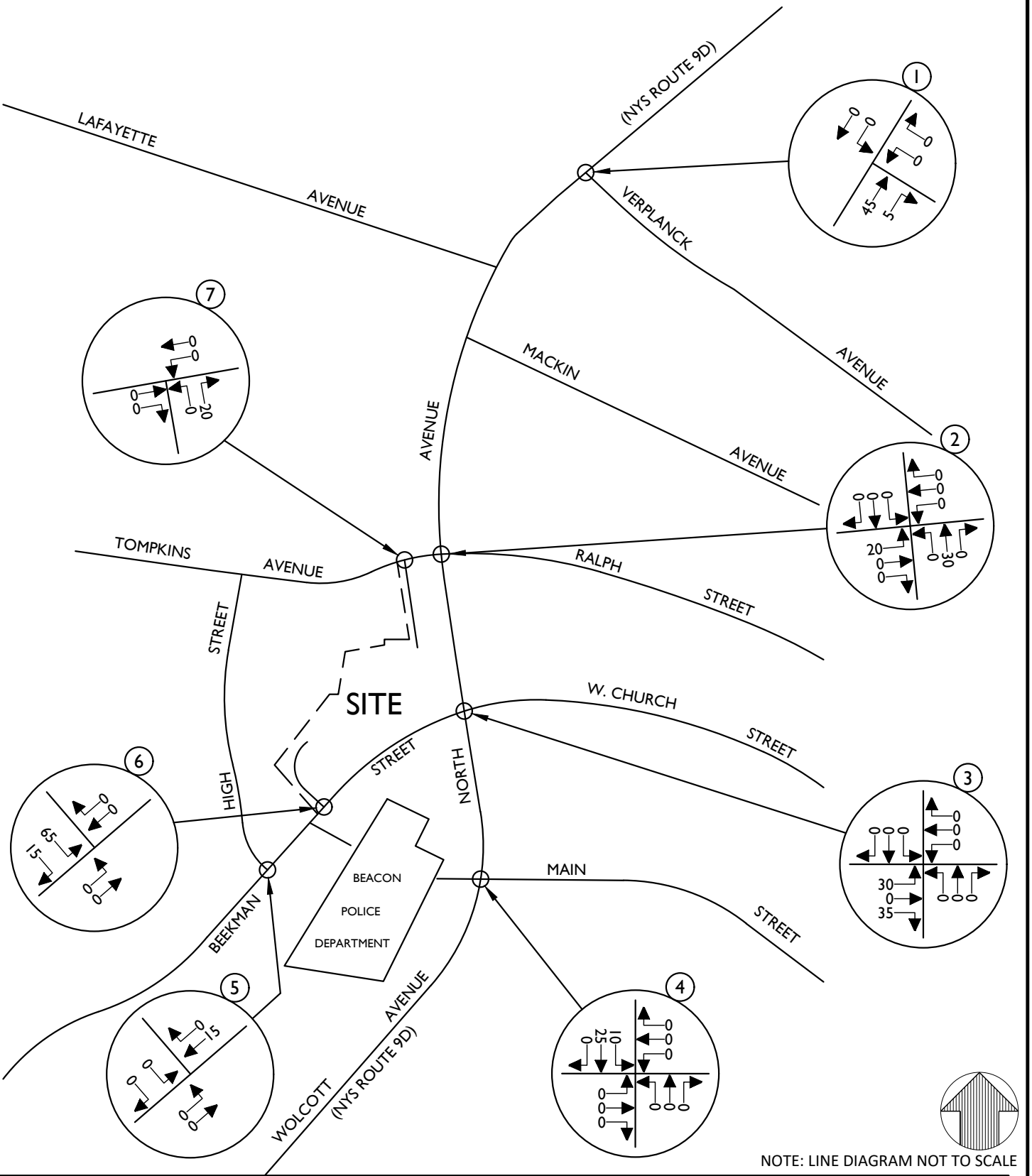
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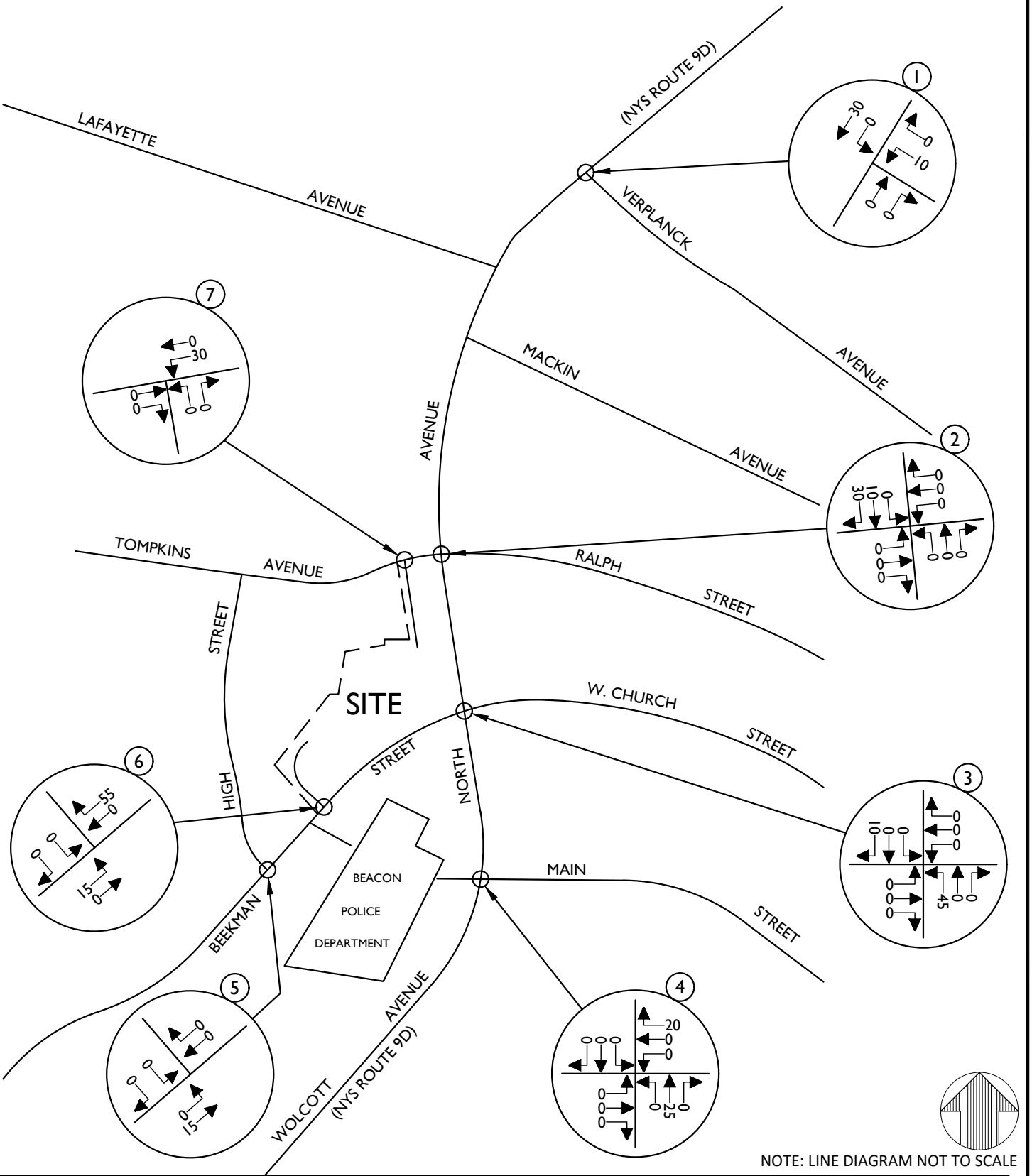
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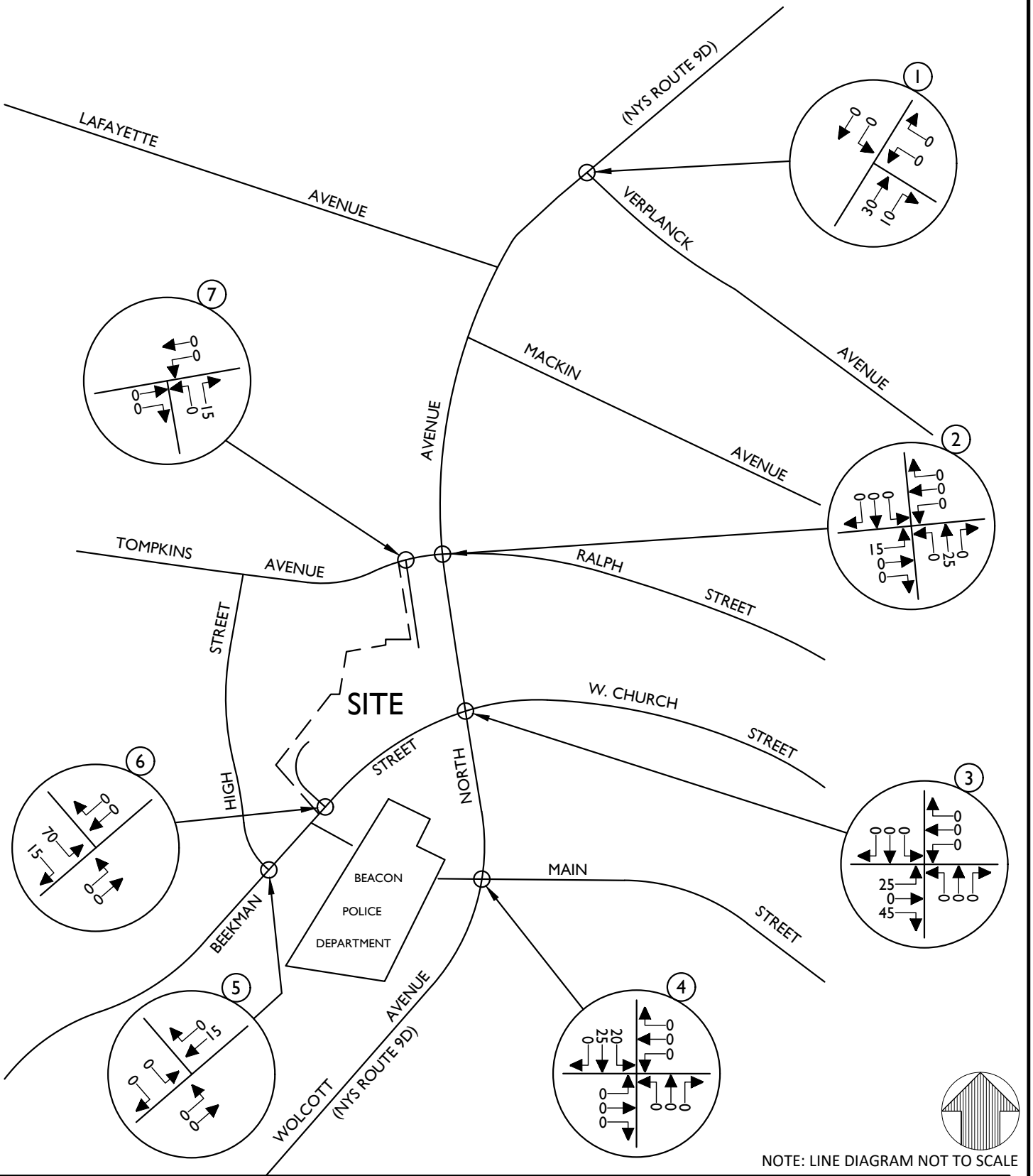
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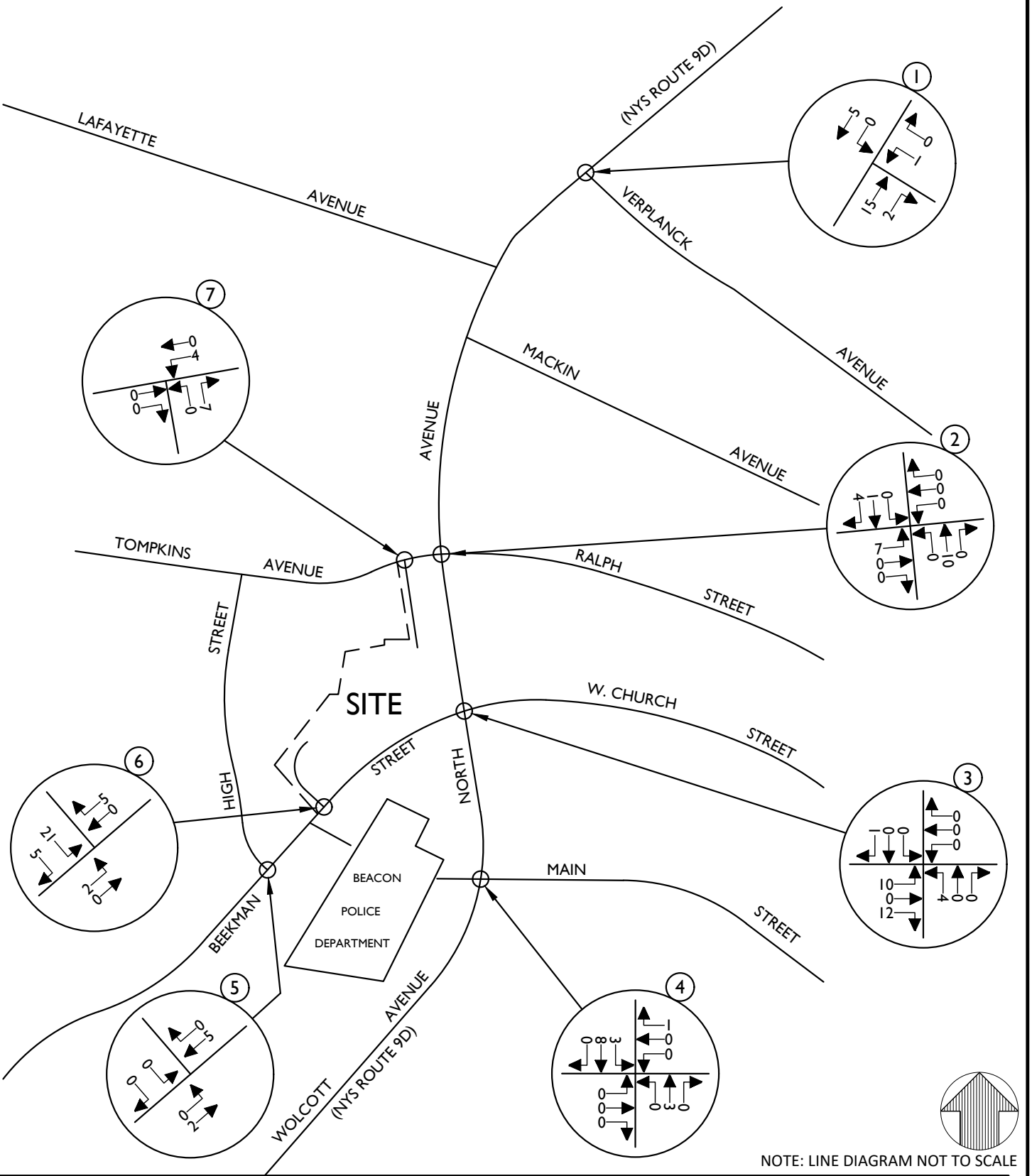
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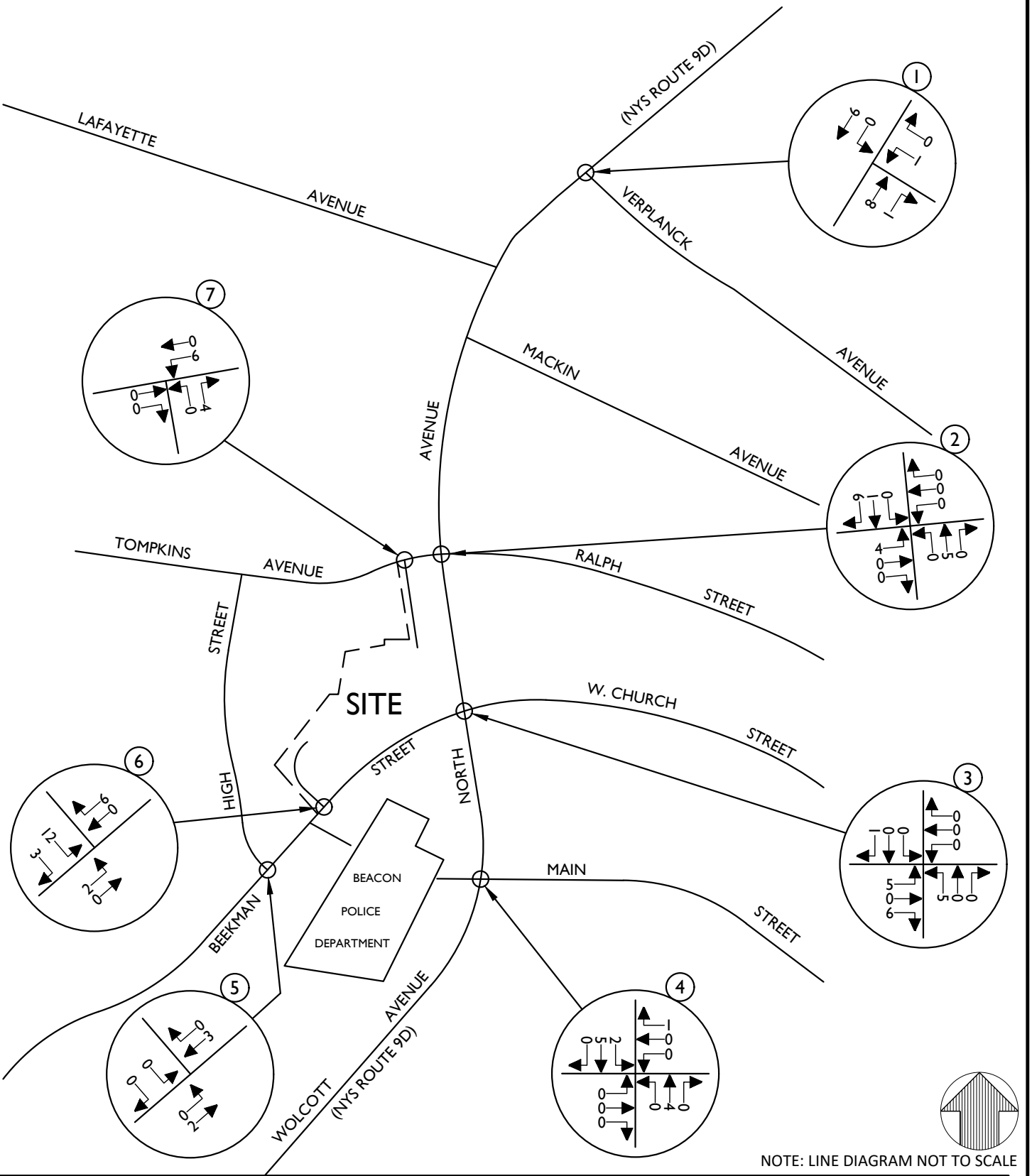
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SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR
(RESIDENTIAL)

SHEET NUMBER: 18

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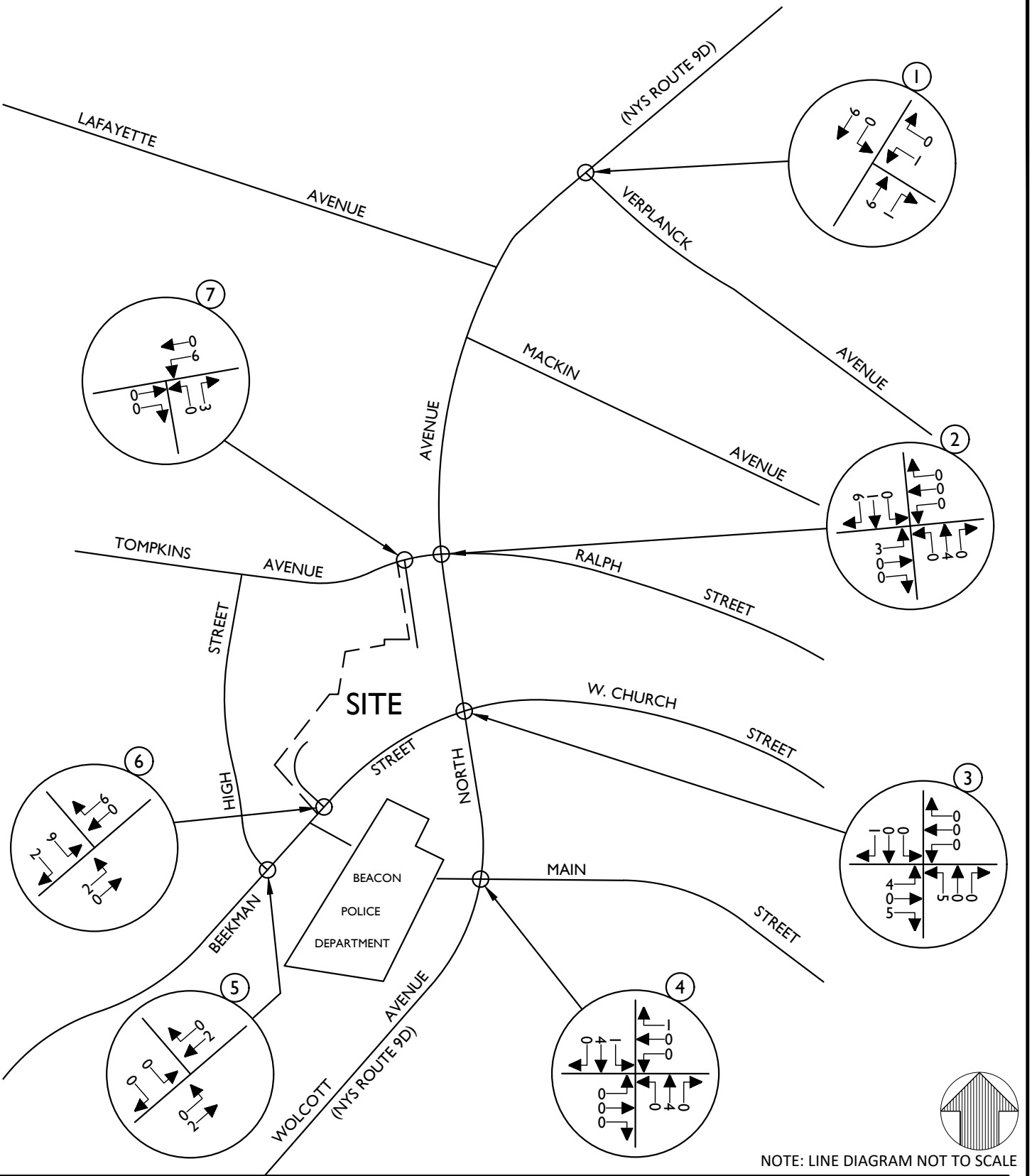
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WEEKDAY PEAK PM HOUR
(RESIDENTIAL)

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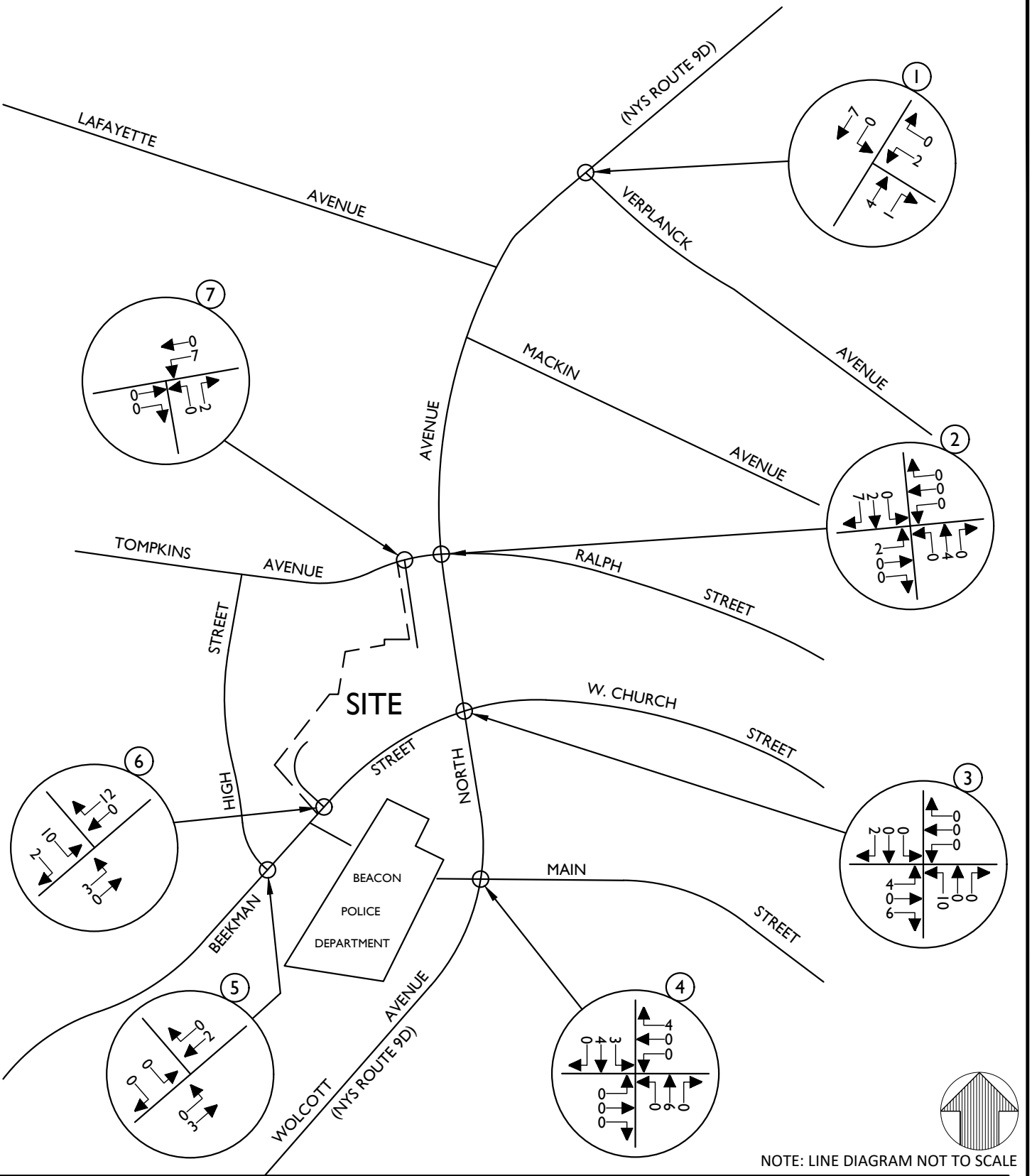
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SHEET TITLE: FIELD BOOK: XX PAGE: XX
SITE GENERATED TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR
(RESIDENTIAL)

SHEET NUMBER: 20

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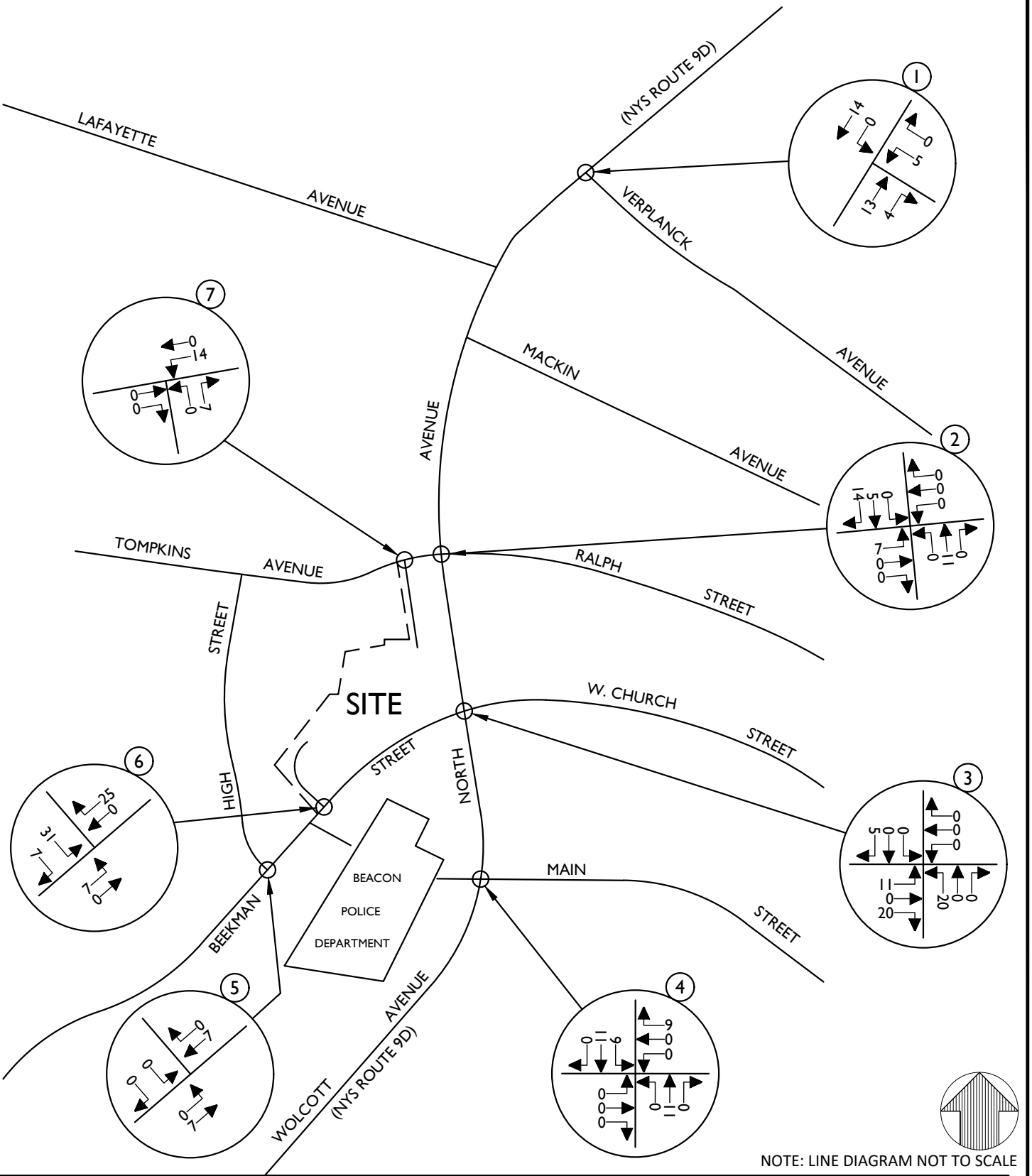
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WEEKDAY PEAK AM HOUR
(COMMERCIAL)

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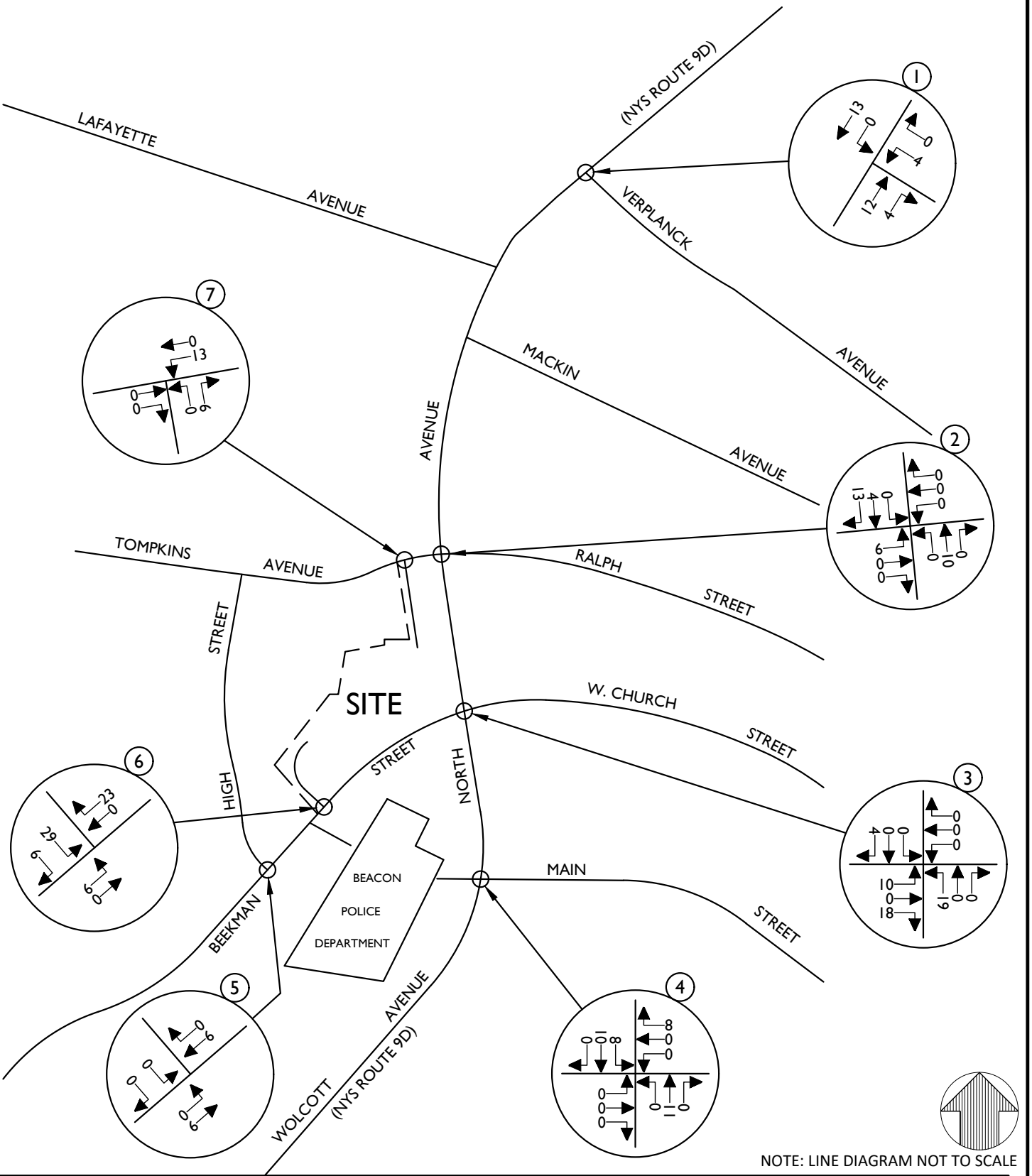
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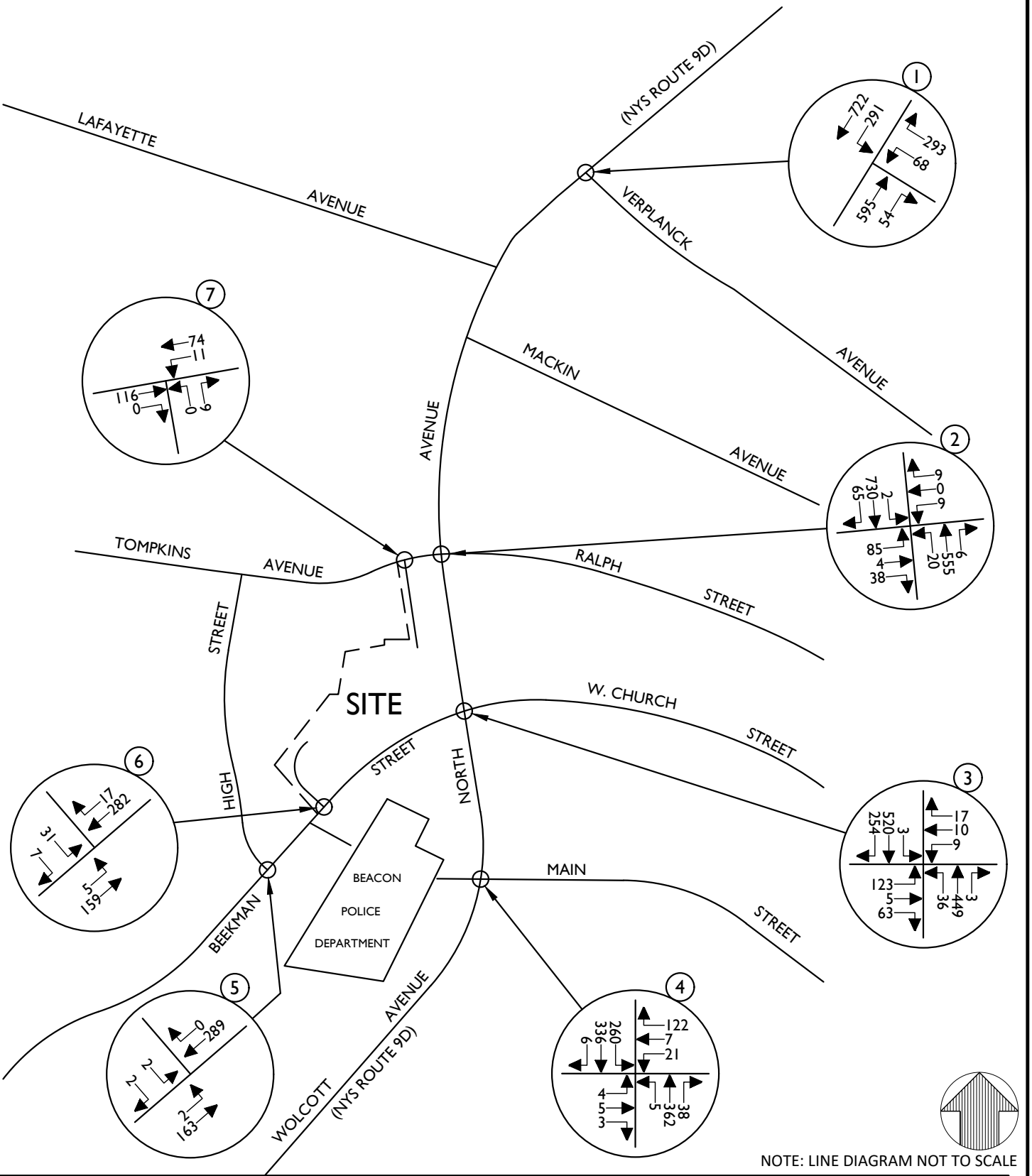
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(COMMERCIAL)

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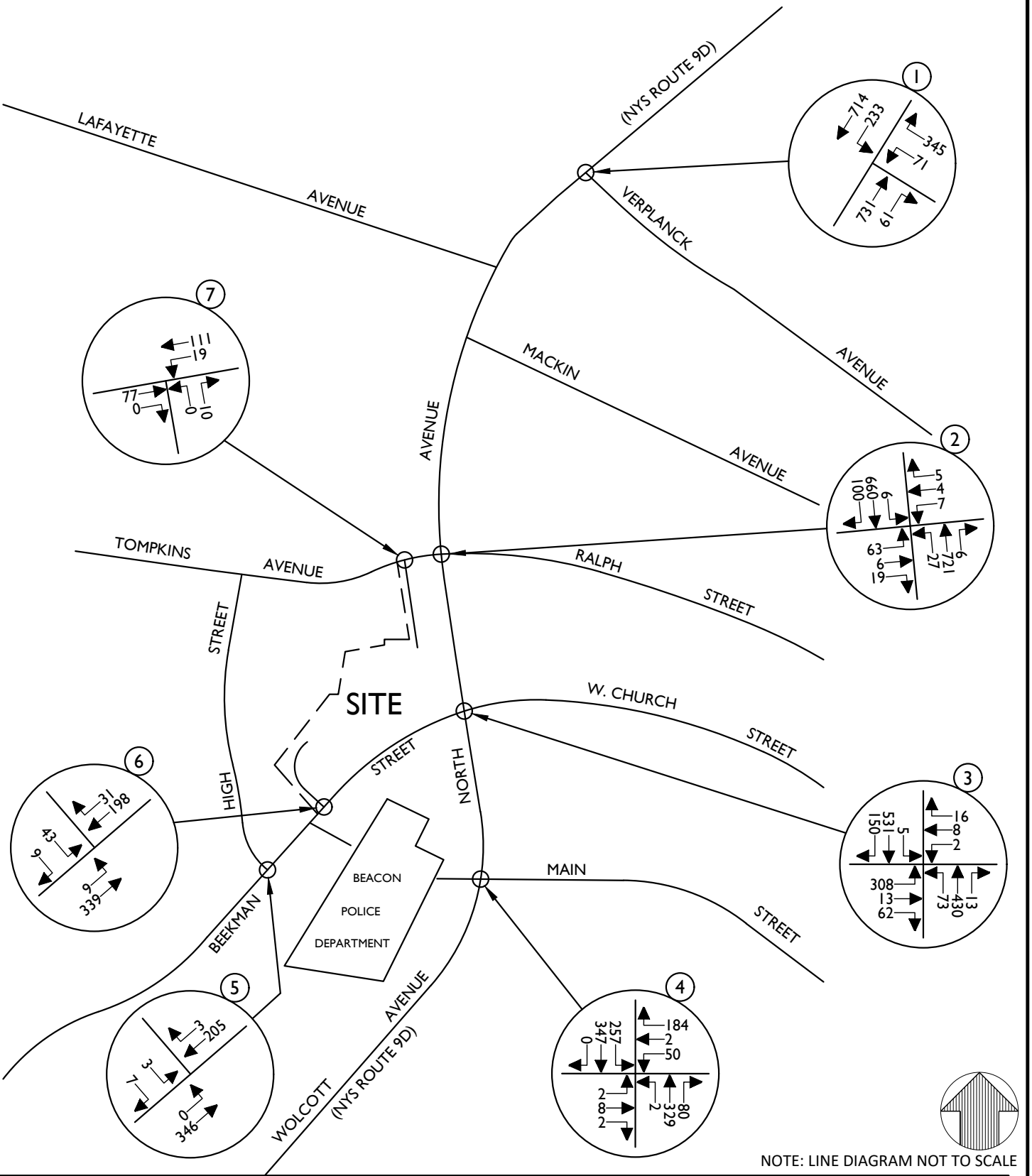
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2026 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

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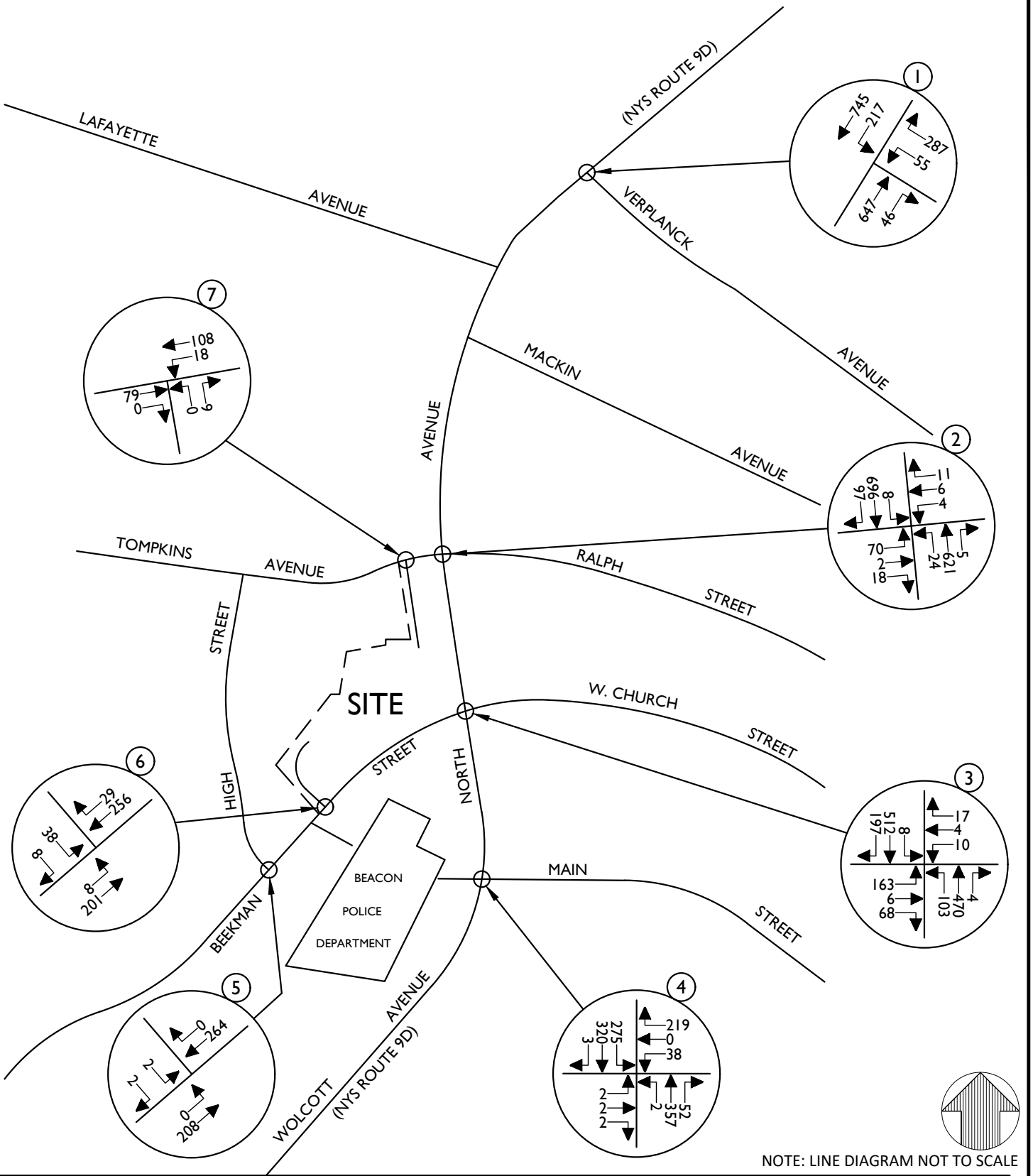
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2026 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

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881

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2026 BUILD TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR

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Traffic & Parking Study

Appendix B | Tables

Table No. 1
Hourly Trip Generation Rates (HTGR) and
Anticipated Site Generated Traffic Volumes

45 Beekman Street & High Street City of Beacon, Dutchess County, New York	Entry			Exit		
	HTGR[1]	Volume	New Trips[2]	HTGR[1]	Volume	New Trips[2]
Residential (64 Units)						
Peak AM Hour	0.15	10	10	0.51	33	33
Peak PM Hour	0.48	31	31	0.28	18	18
Saturday Peak Hour	0.22	14	14	0.22	14	14
Commercial (14,088 Sq. Ft.)						
Peak AM Hour	1.56	22	22	0.99	14	14
Peak PM Hour	3.55	50	45	3.48	49	44
Saturday Peak Hour	3.34	47	42	3.27	46	41
Total						
Peak AM Hour	-	32	32	-	47	47
Peak PM Hour	-	81	76	-	67	62
Saturday Peak Hour	-	61	56	-	60	55

NOTES:

1) THE HOURLY TRIP GENERATION RATES (HTGR) ARE BASED ON DATA PUBLISHED BY THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) AS CONTAINED IN THE TRIP GENERATION HANDBOOK, 11TH EDITION, 2021. ITE LAND USE CODE - 220 - MULTIFAMILY HOUSING (LOW-RISE) AND ITE LAND USE CODE - 822 - STRIP RETAIL PLAZA (<40K).

2) "NEW TRIPS" INCLUDES A 10% INTERNAL TRIP CREDIT APPLIED TO THE RETAIL LAND USE FOR THE PEAK PM AND SATURDAY PEAK HOURS TO ACCOUNT FOR TRIPS BETWEEN THE RESIDENTIAL AND COMMERCIAL PORTIONS OF THE SITE BASED ON NCHRP 684 INTERNAL TRIP CAPTURE ESTIMATION TOOL ANALYSIS AS SUMMARIZED ON TABLES 1-A, 1-B AND 1-C.

TABLE 1-A

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	45 Beekman Street & High Street	**Organization:**	CED
Project Location:	City of Beacon, New York	**Performed By:**	RGD
Scenario Description:	Weekday AM	**Date:**	9/28/2023
Analysis Year:	N/A	**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	822	14,088		36	22	14
Restaurant				0		
Cinema/Entertainment				0		
Residential	220		65	43	10	33
Hotel				0		
All Other Land Uses[2]				0		
				79	32	47

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	79	32	47
Internal Capture Percentage	0%	0%	0%
External Vehicle-Trips[5]	79	32	47
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	0%	0%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	0%	0%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

TABLE 1-A

Project Name:	45 Beekman Street & High Street
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	22	22	1.00	14	14
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	10	10	1.00	33	33
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	4		2	0	2	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	0	7	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		7	0	0	0	0
Retail	0		0	0	0	0
Restaurant	0	2		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	4	0	0		0
Hotel	0	1	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	0	22	22	22	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	10	10	10	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	0	14	14	14	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	33	33	33	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

TABLE 1-B

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	45 Beekman Street & High Street	**Organization:**	CED
Project Location:	City of Beacon, New York	**Performed By:**	RGD
Scenario Description:	Weekday PM	**Date:**	9/28/2023
Analysis Year:	N/A	**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	822	14,088		99	50	49
Restaurant				0		
Cinema/Entertainment				0		
Residential	220		65	49	31	18
Hotel				0		
All Other Land Uses[2]				0		
				148	81	67

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	13	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	5	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	148	81	67
Internal Capture Percentage	24%	22%	27%
External Vehicle-Trips[5]	112	63	49
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	10%	27%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	42%	28%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

TABLE 1-B

Project Name:	45 Beekman Street & High Street
Analysis Period:	**Weekday PM**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	50	50	1.00	49	49
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	31	31	1.00	18	18
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	1		14	2	13	2
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	8	4	0		1
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		4	0	0	1	0
Retail	0		0	0	14	0
Restaurant	0	25		0	5	0
Cinema/Entertainment	0	2	0		1	0
Residential	0	5	0	0		0
Hotel	0	1	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	5	45	50	45	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	13	18	31	18	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	13	36	49	36	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	5	13	18	13	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

TABLE 1-C

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	45 Beekman Street & High Street	**Organization:**	CED
Project Location:	City of Beacon, New York	**Performed By:**	RGD
Scenario Description:	Saturday Peak Hour	**Date:**	9/28/2023
Analysis Year:	N/A	**Checked By:**	
Analysis Period:	**Saturday Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	822	14,088		99	50	49
Restaurant				0		
Cinema/Entertainment				0		
Residential	220		65	49	31	18
Hotel				0		
All Other Land Uses[2]				0		
				148	81	67

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	13	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	5	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	148	81	67
Internal Capture Percentage	24%	22%	27%
External Vehicle-Trips[5]	112	63	49
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	10%	27%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	42%	28%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

TABLE 1-C

Project Name:	45 Beekman Street & High Street
Analysis Period:	**Saturday Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	50	50	1.00	49	49
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	31	31	1.00	18	18
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	1		14	2	13	2
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	8	4	0		1
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		4	0	0	1	0
Retail	0		0	0	14	0
Restaurant	0	25		0	5	0
Cinema/Entertainment	0	2	0		1	0
Residential	0	5	0	0		0
Hotel	0	1	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	5	45	50	45	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	13	18	31	18	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	13	36	49	36	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	5	13	18	13	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

Table No. 2
Level of Service Summary Table
Weekday Peak AM Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
1	**NYS Route 9D & Verplanck Avenue**	**Signalized**											
	Verplanck Avenue	WB	L	0.27	B	17.7	0.30	C	21.7	0.32	C	22.7	1.0
			R	0.79	B	18.0	0.84	C	21.8	0.84	C	22.5	0.7
		WB Approach		***-***	***B***	***18.0***	***-***	***C***	***21.8***	***-***	***C***	***22.5***	***0.7***
	NYS Route 9D	NB	TR	0.82	B	15.2	0.87	B	17.7	0.88	B	18.0	0.3
		NB Approach		***-***	***B***	***15.2***	***-***	***B***	***17.7***	***-***	***B***	***18.0***	***0.3***
	NYS Route 9D	SB	L	0.78	B	19.9	0.82	C	24.0	0.82	C	24.7	0.7
			T	0.58	A	6.1	0.61	A	6.3	0.61	A	6.2	-0.1
		SB Approach		***-***	***B***	***10.8***	***-***	***B***	***11.4***	***-***	***B***	***11.5***	***0.1***
		Overall		**-**	**B**	**13.1**	**-**	**B**	**15.3**	**-**	**B**	**15.6**	**0.3**
2	**NYS Route 9D & Tompkins Avenue/ Ralph Street**	**Unsignalized**											
	Tompkins Avenue	EB	LTR	0.18	C	21.2	0.68	F	59.1	0.77	F	72.9	13.8
	Ralph Street	WB	LTR	0.09	D	25.4	0.13	D	34.0	0.14	D	34.9	0.9
	NYS Route 9D	NB	LTR	0.02	A	9.2	0.03	A	9.6	0.03	A	9.7	0.1
	NYS Route 9D	SB	LTR	0.00	A	8.5	0.00	A	8.7	0.00	A	8.8	0.1
	<u>With Signalization</u>												
	Tompkins Avenue	EB	LTR	-	-	-	0.49	D	38.6	0.46	D	36.8	-1.8
		EB Approach		-	-	-	***-***	***D***	***38.6***	***-***	***D***	***36.8***	**-1.8**
	Ralph Street	WB	LTR	-	-	-	0.07	D	35.7	0.06	C	33.9	-1.8
		WB Approach		-	-	-	***-***	***D***	***35.7***	***-***	***C***	***33.9***	**-1.8**
	NYS Route 9D	NB	L	-	-	-	0.05	A	5.3	0.05	A	6.2	0.9
			TR	-	-	-	0.43	A	6.1	0.45	A	1.0	-5.1
		NB Approach		-	-	-	***-***	***A***	***6.1***	***-***	***A***	***1.2***	**-4.9**
	NYS Route 9D	SB	L	-	-	-	0.00	A	4.5	0.00	A	4.5	0.0
			TR	-	-	-	0.56	A	8.0	0.59	A	9.3	1.3
		SB Approach		-	-	-	***-***	***A***	***8.0***	***-***	***A***	***9.3***	**1.3**
		Overall		**-**	**-**	**-**	**-**	**B**	**10.0**	**-**	**A**	**8.8**	**-1.2**

Table No. 2
Level of Service Summary Table
Weekday Peak AM Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
3	**NYS Route 9D &**	**Signalized**											
	Beekman Street/W. Church Street												
	Beekman Street	EB	LT	0.48	C	30.0	0.50	C	27.6	0.53	C	25.9	-1.7
			R	0.11	C	25.1	0.13	C	21.5	0.15	B	19.2	-2.3
		EB Approach		**-**	***C***	***29.0***	**-**	***C***	***25.9***	**-**	***C***	***23.7***	***-2.2***
	W. Church Street	WB	LTR	0.12	C	25.4	0.15	C	22.2	0.14	C	20.2	-2.0
		WB Approach		**-**	***C***	***25.4***	**-**	***C***	***22.2***	**-**	***C***	***20.2***	***-2.0***
	NYS Route 9D	NB	L	0.03	B	19.7	0.05	C	23.4	0.09	C	26.2	2.8
			TR	0.64	C	25.4	0.71	C	27.6	0.71	C	27.5	-0.1
		NB Approach		**-**	***C***	***25.2***	**-**	***C***	***27.4***	**-**	***C***	***27.5***	***0.1***
	NYS Route 9D	SB	L	0.00	B	12.2	0.01	B	16.6	0.01	B	19.0	2.4
			TR	1.34	F	191.4	1.51	F	263.1	1.51	F	265.9	2.8
		SB Approach		**-**	***F***	***190.9***	**-**	***F***	***262.3***	**-**	***F***	***265.0***	***2.7***
		Overall		**-**	**F**	**115.3**	**-**	**F**	**153.0**	**-**	**F**	**150.5**	**-2.5**
	<u>With Signal Timing & Phasing Modifications</u>												
	Beekman Street	EB	LT	-	-	-	-	-	-	0.79	D	41.4	13.8
			R	-	-	-	-	-	-	0.32	D	35.0	13.5
		EB Approach		**-**	**-**	**-**	**-**	**-**	**-**	**-**	***D***	***39.3***	***13.4***
	W. Church Street	WB	LTR	-	-	-	-	-	-	0.56	D	45.3	23.1
		WB Approach		**-**	**-**	**-**	**-**	**-**	**-**	**-**	***D***	***45.3***	***23.1***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.15	B	14.4	-9.0
			TR	-	-	-	-	-	-	0.38	A	9.4	-18.2
		NB Approach		**-**	**-**	**-**	**-**	**-**	**-**	**-**	***A***	***9.7***	***-17.7***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.01	A	7.5	-9.1
			TR	-	-	-	-	-	-	0.84	C	20.7	-242.4
		SB Approach		**-**	**-**	**-**	**-**	**-**	**-**	**-**	***C***	***20.7***	***-241.6***
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**C**	**20.1**	**-132.9**

Table No. 2
Level of Service Summary Table
Weekday Peak AM Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
4	**NYS Route 9D &**	**Signalized**											
	Main Street/City Hall												
	City Hall	EB	LTR	0.05	C	28.4	0.07	C	28.2	0.07	C	28.0	-0.2
		EB Approach		***-***	***C***	***28.4***	***-***	***C***	***28.2***	***-***	***C***	***28.0***	***-0.2***
	Main Street	WB	LT	0.05	C	28.4	0.09	C	28.3	0.09	C	28.1	-0.2
			R	0.31	C	25.1	0.31	C	24.2	0.32	C	24.1	-0.1
		WB Approach		***-***	***C***	***25.5***	***-***	***C***	***25.0***	***-***	***C***	***24.8***	***-0.2***
	NYS Route 9D	NB	L	0.01	A	6.3	0.01	A	6.8	0.01	A	6.9	0.1
			TR	0.37	A	9.1	0.45	B	10.6	0.46	B	10.9	0.3
		NB Approach		***-***	***A***	***9.0***	***-***	***B***	***10.5***	***-***	***B***	***10.8***	***0.3***
	NYS Route 9D	SB	L	0.37	A	5.2	0.46	B	6.2	0.48	A	6.4	0.2
			TR	0.25	A	5.5	0.31	A	6.0	0.33	A	6.2	0.2
		SB Approach		***-***	***A***	***5.4***	***-***	***A***	***6.1***	***-***	***A***	***6.3***	***0.2***
		Overall		**-**	**A**	**9.5**	**-**	**B**	**10.3**	**-**	**B**	**10.5**	**0.2**
	<u>With Signal Timing & Cooridnation Modifications</u>												
	City Hall	EB	LTR	-	-	-	-	-	-	0.08	C	34.2	6.0
		EB Approach		-	-	-	-	-	-	***-***	***C***	***34.2***	***6.0***
	Main Street	WB	LT	-	-	-	-	-	-	0.10	C	34.3	6.0
			R	-	-	-	-	-	-	0.35	C	30.3	6.1
		WB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***C***	***31.0***	***6.0***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.01	A	6.4	-0.4
			TR	-	-	-	-	-	-	0.42	A	9.9	-0.7
		NB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***A***	***9.9***	***-0.6***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.46	A	6.0	-0.2
			TR	-	-	-	-	-	-	0.31	A	5.6	-0.4
		SB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***A***	***5.8***	***-0.3***
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**B**	**10.7**	**0.4**
5	**Beekman Street &**	**Unsignalized**											
	High Street	EB	LT	0.00	A	8.0	0.00	A	8.1	0.00	A	8.1	0.0
		SB	LR	0.00	B	10.2	0.01	B	10.4	0.01	B	10.5	0.1
6	**Beekman Street &**	**Unsignalized**											
	Site Access	EB	LT	-	-	-	-	-	-	0.01	A	8.1	-
		SB	LR	-	-	-	-	-	-	0.10	B	12.9	-
7	**Tompkins Avenue &**	**Unsignalized**											
	Site Access	WB	LT	-	-	-	-	-	-	0.01	A	7.5	-
		NB	LR	-	-	-	-	-	-	0.01	A	9.1	-

<u>NOTES:</u>

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C"

Table No. 2
Level of Service Summary Table
Weekday Peak PM Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
1	**NYS Route 9D & Verplanck Avenue**	**Signalized**											
	Verplanck Avenue	WB	L	0.21	C	21.2	0.23	C	26.6	0.26	C	28.2	1.6
			R	0.85	C	23.6	0.89	C	29.6	0.90	C	31.8	2.2
		WB Approach		***-***	***C***	***23.2***	***-***	***C***	***29.1***	***-***	***C***	***31.2***	***2.1***
	NYS Route 9D	NB	TR	0.88	B	19.2	0.93	C	30.1	0.94	C	33.1	3.0
		NB Approach		***-***	***B***	***19.2***	***-***	***C***	***30.1***	***-***	***C***	***33.1***	***3.0***
	NYS Route 9D	SB	L	0.79	C	27.5	0.83	C	34.2	0.84	D	35.7	1.5
			T	0.51	A	6.6	0.59	A	7.6	0.59	A	7.6	0.0
		SB Approach		***-***	***B***	***12.4***	***-***	***B***	***14.3***	***-***	***B***	***14.5***	***0.2***
		Overall		**-**	**B**	**17.0**	**-**	**C**	**22.9**	**-**	**C**	**24.6**	**1.7**
2	**NYS Route 9D & Tompkins Avenue/ Ralph Street**	**Unsignalized**											
	Tompkins Avenue	EB	LTR	0.20	D	27.6	0.623	F	67.6	0.75	F	90.5	22.9
	Ralph Street	WB	LTR	0.09	D	31.5	0.166	E	46.0	0.18	E	49.0	3.0
	NYS Route 9D	NB	LTR	0.02	A	9.0	0.04	A	9.6	0.04	A	9.7	0.1
	NYS Route 9D	SB	LTR	0.01	A	9.0	0.01	A	9.3	0.008	A	9.4	0.1
	<u>With Signalization</u>												
	Tompkins Avenue	EB	LTR	-	-	-	0.42	D	40.5	0.45	D	40.2	-0.3
		EB Approach		***-***	***-***	***-***	***-***	***D***	***40.5***	***-***	***D***	***40.2***	***-0.3***
	Ralph Street	WB	LTR	-	-	-	0.08	D	38.4	0.08	D	37.9	-0.5
		WB Approach		***-***	***-***	***-***	***-***	***D***	***38.4***	***-***	***D***	***37.9***	***-0.5***
	NYS Route 9D	NB	L	-	-	-	0.06	A	4.0	0.06	A	4.5	0.5
			TR	-	-	-	0.53	A	1.3	0.55	A	6.5	5.2
		NB Approach		***-***	***-***	***-***	***-***	***A***	***1.4***	***-***	***A***	***6.4***	***5.0***
	NYS Route 9D	SB	L	-	-	-	0.01	A	3	0.01	A	4.5	1.5
			TR	-	-	-	0.52	A	6.4	0.54	A	6.9	0.5
		SB Approach		***-***	***-***	***-***	***-***	***A***	***6.3***	***-***	***A***	***6.9***	***0.6***
		Overall		**-**	**-**	**-**	**-**	**A**	**6.0**	**-**	**A**	**8.8**	**2.8**

Table No. 2
Level of Service Summary Table
Weekday Peak PM Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
3	**NYS Route 9D &**	**Signalized**											
	Beekman Street/W. Church Street												
	Beekman Street	EB	LT	1.75	F	394.9	18.2	F	424.3	1.92	F	468.3	44.0
			R	0.04	B	17.1	0.06	B	17.2	0.11	B	17.6	0.4
		EB Approach		***-***	***F***	***365.9***	***-***	***F***	***382.4***	***-***	***F***	***395.7***	***13.3***
	W. Church Street	WB	LTR	0.03	B	18.1	0.06	B	18.5	0.06	B	18.5	0.0
		WB Approach		***-***	***B***	***18.1***	***-***	***B***	***18.5***	***-***	***B***	***18.5***	***0.0***
	NYS Route 9D	NB	L	0.09	C	31.3	0.13	C	31.3	0.20	C	31.3	0.0
			TR	0.73	D	36.9	0.83	D	42.4	0.83	D	42.2	-0.2
		NB Approach		***-***	***D***	***36.5***	***-***	***D***	***41.3***	***-***	***D***	***40.6***	***-0.7***
	NYS Route 9D	SB	L	0.01	C	24.7	0.01	C	27.1	0.01	C	27.1	0.0
			TR	1.36	F	207.9	1.53	F	283.4	1.55	F	289.8	6.4
		SB Approach		***-***	***F***	***206.7***	***-***	***F***	***281.7***	***-***	***F***	***288.1***	***6.4***
		Overall		**-**	**F**	**188.4**	**-**	**F**	**222.9**	**-**	**F**	**230.1**	**7.2**
	<u>With Signal Timing & Phasing Modifications</u>												
	Beekman Street	EB	LT	-	-	-	-	-	-	0.90	D	51.8	-372.5
			R	-	-	-	-	-	-	0.17	C	26.0	8.8
		EB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***D***	***47.7***	***-334.7***
	W. Church Street	WB	LTR	-	-	-	-	-	-	0.51	D	45.8	27.3
		WB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***D***	***45.8***	***27.3***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.34	B	18.0	-13.3
			TR	-	-	-	-	-	-	0.44	B	14.3	-28.1
		NB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***B***	***14.8***	***-26.5***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.01	B	12.0	-15.1
			TR	-	-	-	-	-	-	0.87	C	29.9	-253.5
		SB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***C***	***29.8***	***-251.9***
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**C**	**29.5**	**-193.4**

Table No. 2
Level of Service Summary Table
Weekday Peak PM Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
4	**NYS Route 9D &**	**Signalized**											
	Main Street/City Hall												
	City Hall	EB	LTR	0.05	C	33	0.06	C	32.4	0.06	C	32.1	-0.3
		EB Approach		***-***	***C***	***33.0***	***-***	***C***	***32.4***	***-***	***C***	***32.1***	***-0.3***
	Main Street	WB	LT	0.12	C	33.4	0.17	C	33.1	0.17	C	32.8	-0.3
			R	0.43	C	30.6	0.45	C	29.6	0.46	C	29.2	-0.4
		WB Approach		***-***	***C***	***31.1***	***-***	***C***	***30.4***	***-***	***C***	***30.0***	***-0.4***
	NYS Route 9D	NB	L	0.00	A	6.7	0.00	A	7.3	0.00	A	7.6	0.3
			TR	0.36	A	9.4	0.44	B	11.3	0.46	B	11.9	0.6
		NB Approach		***-***	***A***	***9.4***	***-***	***B***	***11.2***	***-***	***B***	***11.9***	***0.7***
	NYS Route 9D	SB	L	0.36	A	5.6	0.46	A	6.8	0.49	A	7.3	0.5
			TR	0.25	A	5.7	0.31	A	6.4	0.32	A	6.6	0.2
		SB Approach		***-***	***A***	***5.7***	***-***	***A***	***6.6***	***-***	***A***	***6.9***	***0.3***
		Overall		**-**	**B**	**11.7**	**-**	**B**	**12.7**	**-**	**B**	**13.0**	**0.3**
	<u>With Signal Timing & Cooridnation Modifications</u>												
	City Hall	EB	LTR	-	-	-	-	-	-	0.06	C	32.1	-0.3
		EB Approach		-	-	-	-	-	-	***-***	***C***	***32.1***	***-0.3***
	Main Street	WB	LT	-	-	-	-	-	-	0.17	C	32.8	-0.3
			R	-	-	-	-	-	-	0.46	C	29.2	-0.4
		WB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***C***	***30.0***	***-0.4***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.00	A	7.6	0.3
			TR	-	-	-	-	-	-	0.46	B	11.8	0.5
		NB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***B***	***11.8***	***0.6***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.49	A	7.3	0.5
			TR	-	-	-	-	-	-	0.32	A	6.6	0.2
		SB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***A***	***6.9***	***0.3***
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**B**	**13.0**	**0.3**
5	**Beekman Street &**	**Unsignalized**											
	High Street	EB	LT	0.00	A	0.0	0.00	A	0.0	0.00	A	0.0	0.0
		SB	LR	0.02	A	9.9	0.02	B	10.3	0.021	B	10.4	0.1
6	**Beekman Street &**	**Unsignalized**											
	Site Access	EB	LT	-	-	-	-	-	-	0.01	A	7.9	-
		SB	LR	-	-	-	-	-	-	0.19	C	16.6	-
7	**Tompkins Avenue &**	**Unsignalized**											
	Site Access	WB	LT	-	-	-	-	-	-	0.02	A	7.5	-
		NB	LR	-	-	-	-	-	-	0.02	A	8.9	-

<u>NOTES:</u>

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C"

Table No. 2
Level of Service Summary Table
Saturday Peak Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
1	**NYS Route 9D & Verplanck Avenue**	**Signalized**											
	Verplanck Avenue	WB	L	0.17	B	18.0	0.19	C	21.8	0.22	C	22.9	1.1
			R	0.81	C	20.2	0.86	C	24.1	0.86	C	25.1	1.0
		WB Approach		***-***	***B***	***19.9***	***-***	***C***	***23.8***	***-***	***C***	***24.8***	***1.0***
	NYS Route 9D	NB	TR	0.85	B	16.0	0.89	B	19.9	0.90	C	21.4	1.5
		NB Approach		***-***	***B***	***16.0***	***-***	***B***	***19.9***	***-***	***C***	***21.4***	***1.5***
	NYS Route 9D	SB	L	0.75	C	23.4	0.79	C	27.9	0.80	C	28.9	1.0
			T	0.58	A	6.8	0.65	A	7.7	0.66	A	7.7	0.0
		SB Approach		***-***	***B***	***11.0***	***-***	***B***	***12.3***	***-***	***B***	***12.5***	***0.2***
		Overall		**-**	**B**	**14.3**	**-**	**B**	**16.9**	**-**	**B**	**17.7**	**0.8**
2	**NYS Route 9D & Tompkins Avenue/ Ralph Street**	**Unsignalized**											
	Tompkins Avenue	EB	LTR	0.21	D	27.5	0.60	F	61.7	0.70	F	78.1	16.4
	Ralph Street	WB	LTR	0.08	C	21.4	0.13	D	29.5	0.139	D	30.9	1.4
	NYS Route 9D	NB	LTR	0.01	A	9.0	0.03	A	9.6	0.03	A	9.7	0.1
	NYS Route 9D	SB	LTR	0.01	A	8.7	0.01	A	8.9	0.01	A	8.9	0.0
	<u>With Signalization</u>												
	Tompkins Avenue	EB	LTR	-	-	-	0.41	D	40	0.43	D	39.8	-0.2
		EB Approach		***-***	***-***	***-***	***-***	***D***	***40.0***	***-***	***D***	***39.8***	***-0.2***
	Ralph Street	WB	LTR	-	-	-	0.11	D	38.2	0.11	D	37.7	-0.5
		WB Approach		***-***	***-***	***-***	***-***	***D***	***38.2***	***-***	***D***	***37.7***	***-0.5***
	NYS Route 9D	NB	L	-	-	-	0.05	A	4.3	0.06	A	4.6	0.3
			TR	-	-	-	0.45	A	5.5	0.47	A	1.0	-4.5
		NB Approach		***-***	***-***	***-***	***-***	***A***	***5.4***	***-***	***A***	***1.1***	***-4.3***
	NYS Route 9D	SB	L	-	-	-	0.01	A	3.8	0.01	A	3.2	-0.6
			TR	-	-	-	0.53	A	6.6	0.55	A	7.1	0.5
		SB Approach		***-***	***-***	***-***	***-***	***A***	***6.6***	***-***	***A***	***7.0***	***0.4***
		Overall		**-**	**-**	**-**	**-**	**A**	**8.3**	**-**	**A**	**6.9**	**-1.4**

Table No. 2
Level of Service Summary Table
Saturday Peak Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
3	**NYS Route 9D &**	**Signalized**											
	Beekman Street/W. Church Street												
	Beekman Street	EB	LT	0.51	C	28.6	0.56	C	26.8	0.56	C	27.7	0.9
			R	0.12	C	24.3	0.12	C	20.6	0.21	C	22.8	2.2
		EB Approach		***-***	***C***	***27.9***	***-***	***C***	***25.4***	***-***	***C***	***26.3***	***0.9***
	W. Church Street	WB	LTR	0.09	C	24.5	0.14	C	21.5	0.11	C	22.9	1.4
		WB Approach		***-***	***C***	***24.5***	***-***	***C***	***21.5***	***-***	***C***	***22.9***	***1.4***
	NYS Route 9D	NB	L	0.11	C	20.6	0.18	C	24.4	0.21	C	22.6	-1.8
			TR	0.66	C	25.9	0.76	C	28.9	0.76	C	28.9	0.0
		NB Approach		***-***	***C***	***25.2***	***-***	***C***	***28.3***	***-***	***C***	***27.7***	***-0.6***
	NYS Route 9D	SB	L	0.01	B	13.4	0.02	B	18.5	0.02	B	16.9	-1.6
			TR	1.22	F	140.8	1.37	F	204.0	1.39	F	209.1	5.1
		SB Approach		***-***	***F***	***139.4***	***-***	***F***	***201.9***	***-***	***F***	***207.0***	***5.1***
		Overall		**-**	**F**	**81.0**	**-**	**F**	**110.5**	**-**	**F**	**110.2**	**-0.3**
	<u>With Signal Timing & Phasing Modifications</u>												
	Beekman Street	EB	LT	-	-	-	-	-	-	0.74	D	38.3	11.5
			R	-	-	-	-	-	-	0.27	C	31.3	10.7
		EB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***D***	***36.3***	***10.9***
	W. Church Street	WB	LTR	-	-	-	-	-	-	0.48	D	46.0	24.5
		WB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***D***	***46.0***	***24.5***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.37	B	15.1	-9.3
			TR	-	-	-	-	-	-	0.42	B	10.6	-18.3
		NB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***B***	***11.4***	***-16.9***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.02	A	8.8	-9.7
			TR	-	-	-	-	-	-	0.82	C	22.2	-181.8
		SB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***C***	***22.1***	***-179.8***
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**C**	**20.6**	**-89.9**

Table No. 2
Level of Service Summary Table
Saturday Peak Hour

				2023 Existing			2026 No-Build			2026 Build			Change in Delay
				v/c	LOS	Delay	v/c	LOS	Delay	v/c	LOS	Delay	No-Build to Build
4	**NYS Route 9D &**	**Signalized**											
	Main Street/City Hall												
	City Hall	EB	LTR	0.01	C	26.3	0.03	C	25.8	0.03	C	25.5	-0.3
		EB Approach		***-***	***C***	***26.3***	***-***	***C***	***25.8***	***-***	***C***	***25.5***	***-0.3***
	Main Street	WB	LT	0.07	C	26.7	0.11	C	26.3	0.11	C	26.1	-0.2
			R	0.46	C	24.3	0.47	C	23.3	0.48	C	22.9	-0.4
		WB Approach		***-***	***C***	***24.5***	***-***	***C***	***23.7***	***-***	***C***	***23.4***	***-0.3***
	NYS Route 9D	NB	L	0.00	A	7.5	0.00	A	8.2	0.00	A	8.5	0.3
			TR	0.34	B	10.1	0.44	B	12.1	0.46	B	12.8	0.7
		NB Approach		***-***	***B***	***10.1***	***-***	***B***	***12.1***	***-***	***B***	***12.7***	***0.6***
	NYS Route 9D	SB	L	0.37	A	5.9	0.47	A	7.1	0.49	A	7.5	0.4
			TR	0.24	A	6.2	0.29	A	6.8	0.31	A	7.0	0.2
		SB Approach		***-***	***A***	***6.0***	***-***	***A***	***6.9***	***-***	***A***	***7.2***	***0.3***
		Overall		**-**	**B**	**11.2**	**-**	**B**	**12.2**	**-**	**B**	**12.5**	**0.3**
	<u>With Signal Timing & Cooridnation Modifications</u>												
	City Hall	EB	LTR	-	-	-	-	-	-	0.03	C	31.2	5.4
		EB Approach		-	-	-	-	-	-	***-***	***C***	***31.2***	***5.4***
	Main Street	WB	LT	-	-	-	-	-	-	0.12	C	31.9	5.6
			R	-	-	-	-	-	-	0.52	C	29.0	5.7
		WB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***C***	***29.4***	***5.7***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.00	A	8.0	-0.2
			TR	-	-	-	-	-	-	0.42	B	11.8	-0.3
		NB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***B***	***11.8***	***-0.3***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.47	A	7.1	0.0
			TR	-	-	-	-	-	-	0.29	A	6.7	-0.1
		SB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***A***	***6.9***	***0.0***
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**B**	**13.3**	**1.1**
5	**Beekman Street &**	**Unsignalized**											
	High Street	EB	LT	0.00	A	0.0	0.00	A	0.0	0.00	A	0.0	0.0
		SB	LR	0.00	B	10.0	0.01	B	10.2	0.007	B	10.3	0.1
6	**Beekman Street &**	**Unsignalized**											
	Site Access	EB	LT	-	-	-	-	-	-	0.01	A	8.0	-
		SB	LR	-	-	-	-	-	-	0.11	B	12.9	-
7	**Tompkins Avenue &**	**Unsignalized**											
	Site Access	WB	LT	-	-	-	-	-	-	0.01	A	7.4	-
		NB	LR	-	-	-	-	-	-	0.01	A	8.8	-

<u>NOTES:</u>

1) THE ABOVE REPRESENTS THE LEVEL OF SERVICE AND VEHICLE DELAY IN SECONDS, C [16.2], FOR EACH KEY APPROACH OF THE UNSIGNALIZED INTERSECTIONS AS WELL AS FOR EACH APPROACH AND THE OVERALL INTERSECTION FOR THE SIGNALIZED INTERSECTIONS. SEE APPENDIX "C"

TABLE TSW-1

SIGNAL WARRANTS ANALYSIS
WOLCOTT AVENUE (NYS ROUTE 9D) AT TOMPKINS AVENUE/RALPH STREET
WARRANT ANALYSIS SUMMARY

INTERSECTION DATA			
Major Street:	Wolcott Avenue (NYS Route 9D)	**Number of Lanes For Moving Traffic By Approach**	
Minor Street:	Tompkins Avenue/Ralph Street	Major Street (Excluding Auxiliary Lanes) =	1
		Minor Street (Including Auxiliary Lanes) =	1
Location:	City of Beacon, Dutchess County, New York		
		Major Street Speed	
Date:	10/12/2023	85TH Percentile Speed >= 40 mph (Y or N):	30
Volume Basis:	2026 No-Build Traffic Volumes	**Community Population**	
		Community < 10,000 (Y or N):	N
Condition:	Typical Weekday		

WARRANT ANALYSIS SUMMARY		
Warrant 1 - Eight-Hour Vehicular Volume		
Condition A - Minimum Vehicular Volume		Not Satisfied -- No Signal
Condition B - Minimum Vehicular Interruption of Continous Traffic		Not Satisfied -- No Signal
Condition A & B Combined Condition		Not Applicable
	Warrant 1 Satisfied:	**NO**
Warrant 2 - Four-Hour Vehicular Volume		
Four-Hour Vehicular Volume		Satisfied -- Criteria Met for Signalization
	Warrant 2 Satisfied:	**YES**
Warrant 3 - Peak Hour		
Peak Hour Volume		Not Satisfied -- No Signal
	Warrant 3 Satisfied:	**NO**
Warrant 4 - Pedestrian Volume Warrant		
Condition A - Pedestrian Four-Hour Volume		Not Applicable
Condition B - Pedestrian Peak Hour Volume		Not Applicable
	Warrant 4 Satisfied:	**Not Applicable**
Warrant 5 - School Crossing		
	Warrant 5 Satisfied:	**Not Applicable**
Warrant 6 - Coordinated Signal System		
	Warrant 6 Satisfied:	**Not Analyzed**
Warrant 7 - Crash Experience		
	Warrant 7 Satisfied:	**Not Analyzed**
Warrant 8 - Roadway Network		
	Warrant 7 Satisfied:	**Not Analyzed**
Warrant 9 - Intersection Near a Grade Crossing		
Condition A - Distance to Rail		Not Applicable
Condition B - Traffic Volume Warrant		Not Applicable
	Warrant 9 Satisfied:	**Not Applicable**

Colliers Engineering & Design

TABLE TSW-1

SIGNAL WARRANTS ANALYSIS
WOLCOTT AVENUE (NYS ROUTE 9D) AT TOMPKINS AVENUE/RALPH STREET
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

INTERSECTION DATA

Major Street: Wolcott Avenue (NYS Route 9D)
Minor Street: Tompkins Avenue/Ralph Street
Location: City of Beacon, Dutchess County, New York
Date: 10/12/2023
Volume Basis: 2026 No-Build Traffic Volumes
Condition: Typical Weekday

Number of Lanes For Moving Traffic By Approach
Major Street (Excluding Auxiliary Lanes) = 1
Minor Street (Including Auxiliary Lanes) = 1

Major Street Speed
85TH Percentile Speed >= 40 mph (Y or N): N

Community Population
Community < 10,000 (Y or N): N

WARRANT ANALYSIS

Time of Day	Volumes		Warrant 1 Condition A		Warrant 1 Condition B		Warrant 1 Condition A & B				Warrant Met?			
							Condition A		Condition B				Combined	
	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Warrant 1A	Warrant 1B	1A	1B
12:00 AM	153	9	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
1:00 AM	76	5	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
2:00 AM	55	5	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
3:00 AM	57	5	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
4:00 AM	286	22	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
5:00 AM	542	40	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
6:00 AM	1,107	95	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
7:00 AM	1,184	134	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
8:00 AM	1,347	116	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
9:00 AM	1,013	75	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
10:00 AM	800	67	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
11:00 AM	831	53	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
12:00 PM	955	53	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
1:00 PM	994	56	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
2:00 PM	1,110	62	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
3:00 PM	1,293	70	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
4:00 PM	1,475	76	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
5:00 PM	1,051	93	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
6:00 PM	1,415	81	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
7:00 PM	1,065	59	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
8:00 PM	842	49	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
9:00 PM	614	34	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
10:00 PM	444	27	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
11:00 PM	265	16	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
Total Hours Meeting Warrants											**0**	**7**	**0**	**0**
Total Hours Needed to Satisfy											**8**	**8**	**8***	**8***

WARRANT 1 SUMMARY

Warrant 1 Condition A - Minimum Vehicular Volume	**Not Satisfied -- No Signal**
Warrant 1 Condition B - Interruption of Continuous Traffic	**Not Satisfied -- No Signal**
Warrant 1A & 1B Combined Condition	**Not Applicable**

*Note: For Combined Warrant Both Conditions 1A & 1B Must Be Satisfied for a Minimum of 8 Hours.

TABLE TSW-1

SIGNAL WARRANTS ANALYSIS
WOLCOTT AVENUE (NYS ROUTE 9D) AT TOMPKINS AVENUE/RALPH STREET
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME & WARRANT 3 - PEAK HOUR

INTERSECTION DATA

Major Street:	Wolcott Avenue (NYS Route 9D)	**Number of Lanes For Moving Traffic By Approach**	
Minor Street:	Tompkins Avenue/Ralph Street	Major Street (Excluding Auxiliary Lanes) =	1
		Minor Street (Including Auxiliary Lanes) =	1
Location:	City of Beacon, Dutchess County, New York		
		Major Street Speed	
Date:	10/12/2023	85TH Percentile Speed >= 40 mph (Y or N):	N
Volume Basis:	2026 No-Build Traffic Volumes	**Community Population**	
		Community < 10,000 (Y or N):	N
Condition:	Typical Weekday		

WARRANT ANALYSIS

Time of Day	Volumes Major Street	Volumes Minor Street	Warrant 2[1] Major Street	Warrant 2[1] Minor Street	Warrant 3[1] Major Street	Warrant 3[1] Minor Street	Warrant Met? Warrant 2	Warrant Met? Warrant 3
12:00 AM	153	9					NO	NO
1:00 AM	76	5					NO	NO
2:00 AM	55	5					NO	NO
3:00 AM	57	5					NO	NO
4:00 AM	286	22					NO	NO
5:00 AM	542	40					NO	NO
6:00 AM	1,107	95					YES	NO
7:00 AM	1,184	134					YES	NO
8:00 AM	1,347	116					YES	NO
9:00 AM	1,013	75					NO	NO
10:00 AM	800	67					NO	NO
11:00 AM	831	53					NO	NO
12:00 PM	955	53					NO	NO
1:00 PM	994	56					NO	NO
2:00 PM	1,110	62					NO	NO
3:00 PM	1,293	70					NO	NO
4:00 PM	1,475	76					NO	NO
5:00 PM	1,051	93					YES	NO
6:00 PM	1,415	81					YES	NO
7:00 PM	1,065	59					NO	NO
8:00 PM	842	49					NO	NO
9:00 PM	614	34					NO	NO
10:00 PM	444	27					NO	NO
11:00 PM	265	16					NO	NO
			See Figure 4C-1		**See Figure 4C-3**			
						Total Hours Meeting Warrants	5	0
						Total Hours Needed to Satisfy	4	1

WARRANTS 2 & 3 SUMMARY

Warrant 2 - Four Hour Vehicular Volume	**Satisfied -- Criteria Met for Signalization**
Warrant 3 - Peak Hour Volume	**Not Satisfied -- No Signal**

Notes:

1) Volumes for Warrants 2 & 3 are compared to attached MUTCD Figures 4C-1 and 4C-3, respectively.

Table TSW-1

Figure 4C-1

Wolcott Avenue (NYS Route 9D) at Tompkins Avenue/Ralph Street

Warrant 2 - Four Hour Vehicular Warrant

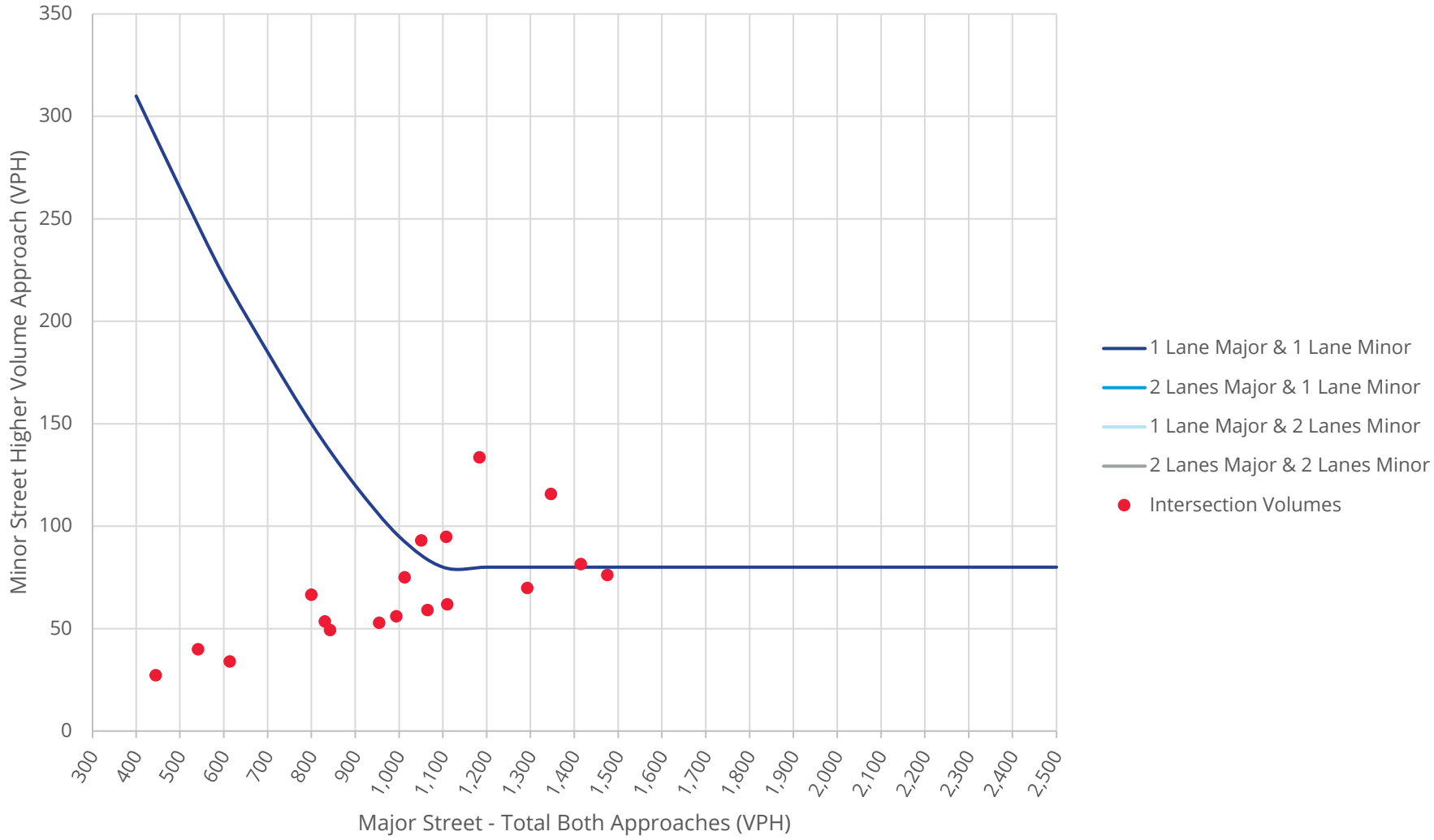


Table TSW-1

Figure 4C-3

Wolcott Avenue (NYS Route 9D) at Tompkins Avenue/Ralph Street

Warrant 3 - Peak Hour Warrant

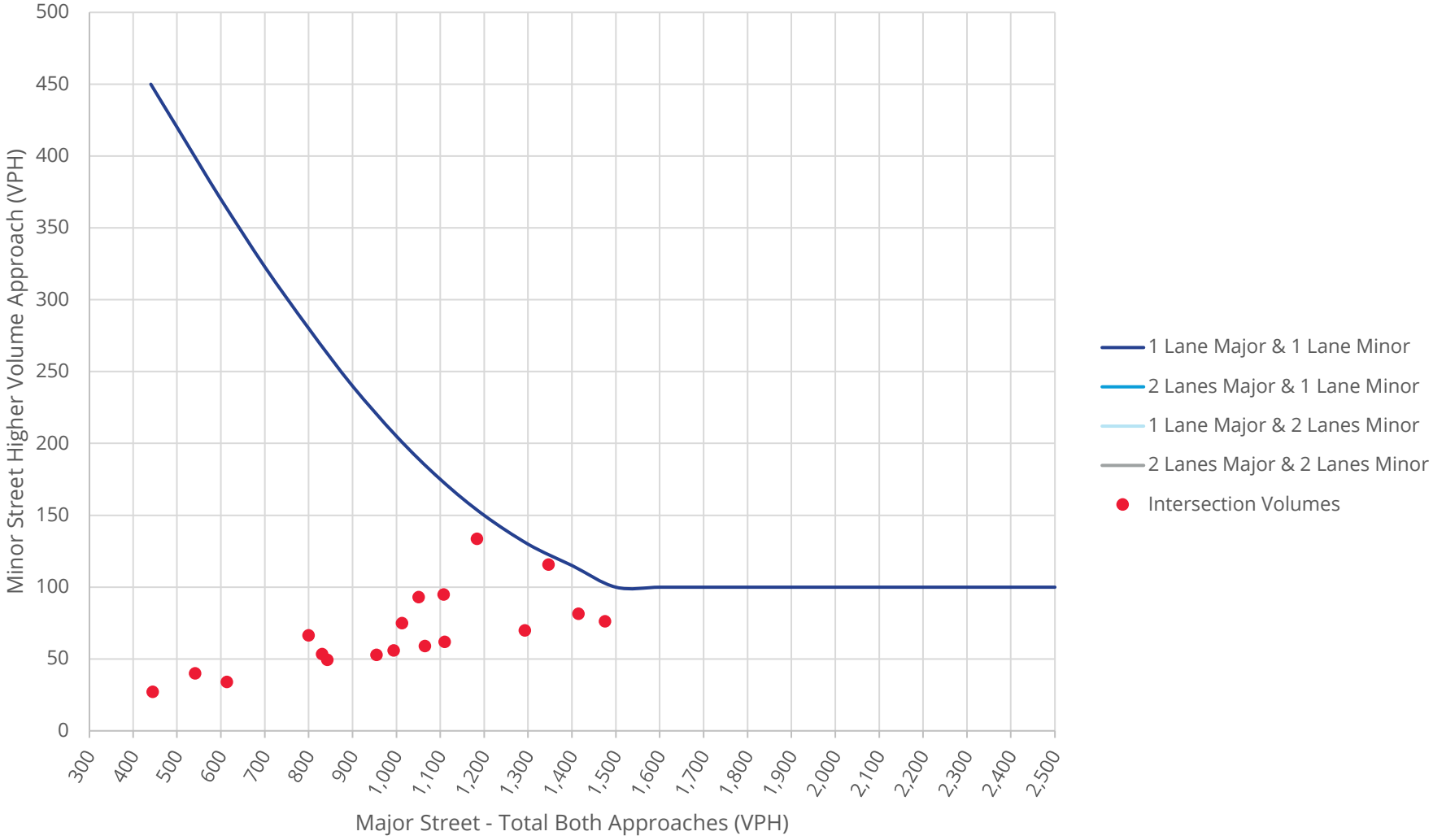


TABLE TSW-2

SIGNAL WARRANTS ANALYSIS
WOLCOTT AVENUE (NYS ROUTE 9D) AT TOMPKINS AVENUE/RALPH STREET
WARRANT ANALYSIS SUMMARY

INTERSECTION DATA			
Major Street:	Wolcott Avenue (NYS Route 9D)	**Number of Lanes For Moving Traffic By Approach**	
Minor Street:	Tompkins Avenue/Ralph Street	Major Street (Excluding Auxiliary Lanes) =	1
		Minor Street (Including Auxiliary Lanes) =	1
Location:	City of Beacon, Dutchess County, New York		
		Major Street Speed	
Date:	10/12/2023	85TH Percentile Speed >= 40 mph (Y or N):	30
Volume Basis:	2026 Build Traffic Volumes	**Community Population**	
		Community < 10,000 (Y or N):	N
Condition:	Typical Weekday		

WARRANT ANALYSIS SUMMARY		
Warrant 1 - Eight-Hour Vehicular Volume		
Condition A - Minimum Vehicular Volume		Not Satisfied -- No Signal
Condition B - Minimum Vehicular Interruption of Continous Traffic		Satisfied -- Criteria Met for Signalization
Condition A & B Combined Condition		Not Applicable
	Warrant 1 Satisfied:	**YES**
Warrant 2 - Four-Hour Vehicular Volume		
Four-Hour Vehicular Volume		Satisfied -- Criteria Met for Signalization
	Warrant 2 Satisfied:	**YES**
Warrant 3 - Peak Hour		
Peak Hour Volume		Satisfied -- Criteria Met for Signalization
	Warrant 3 Satisfied:	**YES**
Warrant 4 - Pedestrian Volume Warrant		
Condition A - Pedestrian Four-Hour Volume		Not Applicable
Condition B - Pedestrian Peak Hour Volume		Not Applicable
	Warrant 4 Satisfied:	**Not Applicable**
Warrant 5 - School Crossing		
	Warrant 5 Satisfied:	**Not Applicable**
Warrant 6 - Coordinated Signal System		
	Warrant 6 Satisfied:	**Not Analyzed**
Warrant 7 - Crash Experience		
	Warrant 7 Satisfied:	**Not Analyzed**
Warrant 8 - Roadway Network		
	Warrant 7 Satisfied:	**Not Analyzed**
Warrant 9 - Intersection Near a Grade Crossing		
Condition A - Distance to Rail		Not Applicable
Condition B - Traffic Volume Warrant		Not Applicable
	Warrant 9 Satisfied:	**Not Applicable**

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TABLE TSW-2

SIGNAL WARRANTS ANALYSIS
WOLCOTT AVENUE (NYS ROUTE 9D) AT TOMPKINS AVENUE/RALPH STREET
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME

INTERSECTION DATA

Major Street: Wolcott Avenue (NYS Route 9D)
Minor Street: Tompkins Avenue/Ralph Street
Location: City of Beacon, Dutchess County, New York
Date: 10/12/2023
Volume Basis: 2026 Build Traffic Volumes
Condition: Typical Weekday

Number of Lanes For Moving Traffic By Approach
Major Street (Excluding Auxiliary Lanes) = 1
Minor Street (Including Auxiliary Lanes) = 1

Major Street Speed
85TH Percentile Speed >= 40 mph (Y or N): N

Community Population
Community < 10,000 (Y or N): N

WARRANT ANALYSIS

Time of Day	Volumes		Warrant 1 Condition A		Warrant 1 Condition B		Warrant 1 Condition A & B				Warrant Met?			
							Condition A		Condition B				Combined	
	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Major Street	Minor Street	Warrant 1A	Warrant 1B	1A	1B
12:00 AM	155	9	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
1:00 AM	78	6	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
2:00 AM	56	5	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
3:00 AM	58	5	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
4:00 AM	288	23	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
5:00 AM	548	43	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
6:00 AM	1,121	101	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
7:00 AM	1,208	143	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
8:00 AM	1,374	124	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
9:00 AM	1,044	82	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
10:00 AM	840	76	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
11:00 AM	881	65	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
12:00 PM	997	62	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
1:00 PM	1,034	66	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
2:00 PM	1,151	72	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
3:00 PM	1,336	80	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
4:00 PM	1,516	87	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
5:00 PM	1,105	105	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
6:00 PM	1,462	92	500	150	750	75	400	120	600	60	NO	YES	N/A	N/A
7:00 PM	1,104	67	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
8:00 PM	875	57	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
9:00 PM	635	39	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
10:00 PM	466	32	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
11:00 PM	276	19	500	150	750	75	400	120	600	60	NO	NO	N/A	N/A
Total Hours Meeting Warrants											**0**	**9**	**0**	**0**
Total Hours Needed to Satisfy											**8**	**8**	**8***	**8***

WARRANT 1 SUMMARY

Warrant 1 Condition A - Minimum Vehicular Volume	**Not Satisfied -- No Signal**
Warrant 1 Condition B - Interruption of Continuous Traffic	**Satisfied -- Criteria Met for Signalization**
Warrant 1A & 1B Combined Condition	**Not Applicable**

*Note: For Combined Warrant Both Conditions 1A & 1B Must Be Satisfied for a Minimum of 8 Hours.

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TABLE TSW-2

SIGNAL WARRANTS ANALYSIS
WOLCOTT AVENUE (NYS ROUTE 9D) AT TOMPKINS AVENUE/RALPH STREET
WARRANT 2 - FOUR-HOUR VEHICULAR VOLUME & WARRANT 3 - PEAK HOUR

INTERSECTION DATA

Major Street:	Wolcott Avenue (NYS Route 9D)	**Number of Lanes For Moving Traffic By Approach**	
Minor Street:	Tompkins Avenue/Ralph Street	Major Street (Excluding Auxiliary Lanes) =	1
		Minor Street (Including Auxiliary Lanes) =	1
Location:	City of Beacon, Dutchess County, New York		
		Major Street Speed	
Date:	10/12/2023	85TH Percentile Speed >= 40 mph (Y or N):	N
Volume Basis:	2026 Build Traffic Volumes	**Community Population**	
		Community < 10,000 (Y or N):	N
Condition:	Typical Weekday		

WARRANT ANALYSIS

Time of Day	Volumes Major Street	Volumes Minor Street	Warrant 2[1] Major Street	Warrant 2[1] Minor Street	Warrant 3[1] Major Street	Warrant 3[1] Minor Street	Warrant Met? Warrant 2	Warrant Met? Warrant 3
12:00 AM	155	9					NO	NO
1:00 AM	78	6					NO	NO
2:00 AM	56	5					NO	NO
3:00 AM	58	5					NO	NO
4:00 AM	288	23					NO	NO
5:00 AM	548	43					NO	NO
6:00 AM	1,121	101					YES	NO
7:00 AM	1,208	143					YES	NO
8:00 AM	1,374	124					YES	YES
9:00 AM	1,044	82					NO	NO
10:00 AM	840	76					NO	NO
11:00 AM	881	65					NO	NO
12:00 PM	997	62					NO	NO
1:00 PM	1,034	66					NO	NO
2:00 PM	1,151	72					NO	NO
3:00 PM	1,336	80					YES	NO
4:00 PM	1,516	87					YES	NO
5:00 PM	1,105	105					YES	NO
6:00 PM	1,462	92					YES	NO
7:00 PM	1,104	67					NO	NO
8:00 PM	875	57					NO	NO
9:00 PM	635	39					NO	NO
10:00 PM	466	32					NO	NO
11:00 PM	276	19					NO	NO
			See Figure 4C-1		**See Figure 4C-3**			
						Total Hours Meeting Warrants	7	1
						Total Hours Needed to Satisfy	4	1

WARRANTS 2 & 3 SUMMARY

Warrant 2 - Four Hour Vehicular Volume	**Satisfied -- Criteria Met for Signalization**
Warrant 3 - Peak Hour Volume	**Satisfied -- Criteria Met for Signalization**

Notes:

1) Volumes for Warrants 2 & 3 are compared to attached MUTCD Figures 4C-1 and 4C-3, respectively.

Table TSW-2

Figure 4C-1

Wolcott Avenue (NYS Route 9D) at Tompkins Avenue/Ralph Street

Warrant 2 - Four Hour Vehicular Warrant

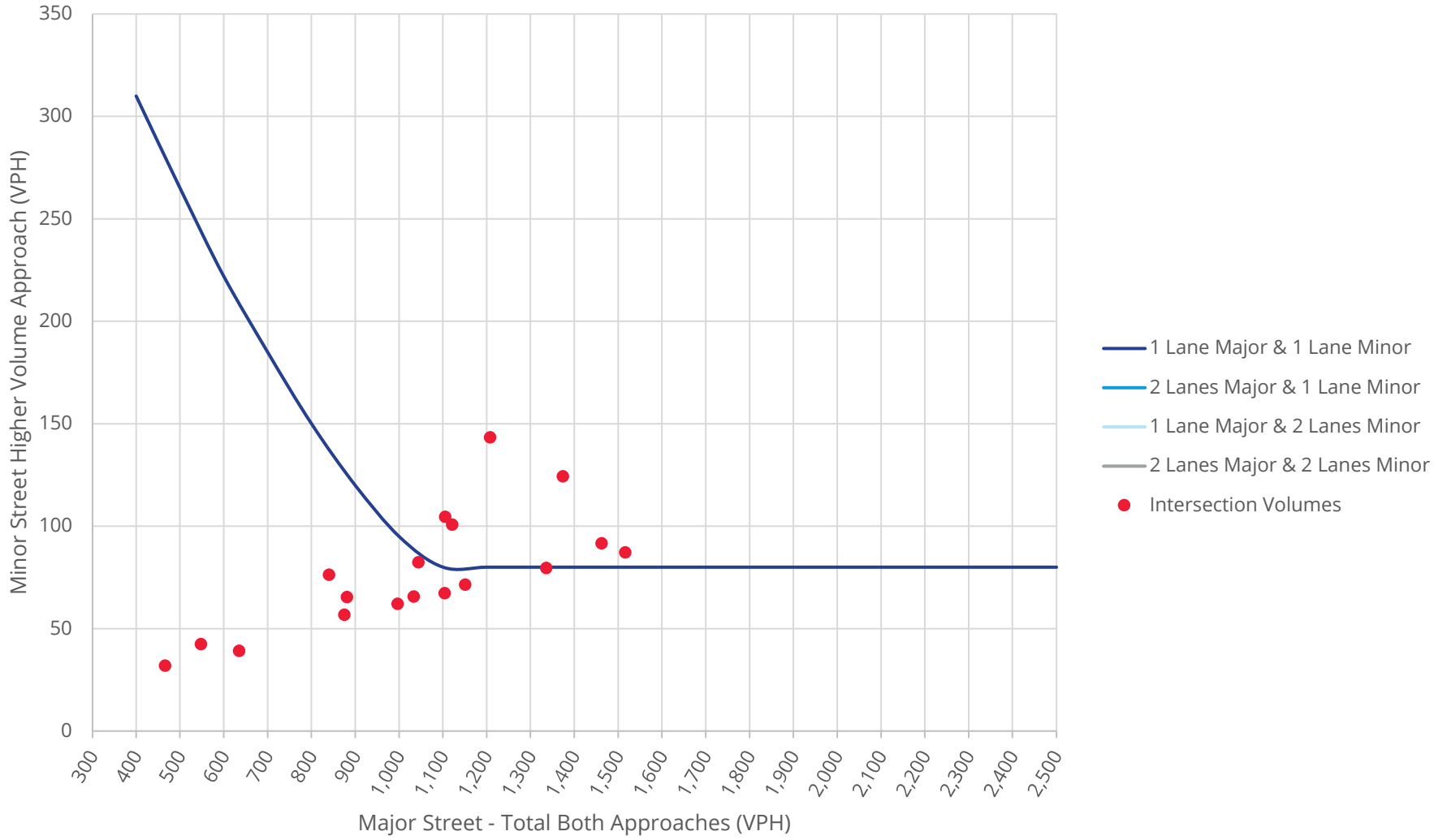


Table TSW-2

Figure 4C-3

Wolcott Avenue (NYS Route 9D) at Tompkins Avenue/Ralph Street

Warrant 3 - Peak Hour Warrant

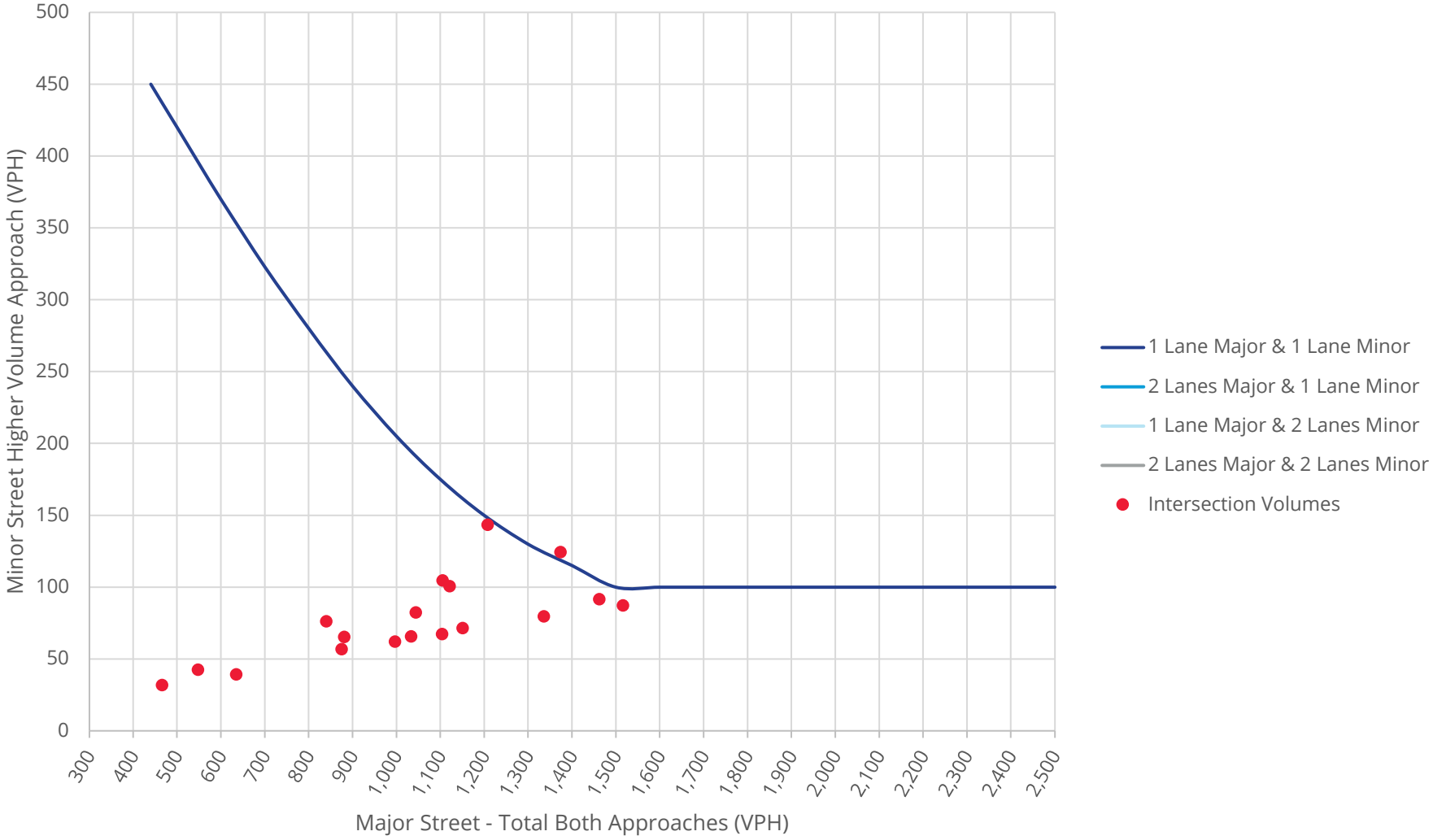


TABLE NO. P-1
SHARED PARKING ANALYSIS
WEEKDAY

		45 Beekman Street				High Street				
Use		**Residential**		**Retail**		**Residential**		**Retail**		
Size		36 Units		8,670 Sq. Ft.		28 Units		5,418 Sq. Ft.		**Total Peak**
Demand Factor		1 /Unit		3.0 /1,000 Sq. Ft.		1 /Unit		3.0 /1,000 Sq. Ft.		**Parking**
Peak Hour Demand		36 Spaces		27 Spaces		28 Spaces		17 Spaces		**Demand**
Time of Day		**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**Parking**
Start	**End**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Spaces**
12:00 AM	1:00 AM	97%	35	0%	-	97%	28	0%	-	63
1:00 AM	2:00 AM	97%	35	0%	-	97%	28	0%	-	63
2:00 AM	3:00 AM	97%	35	0%	-	97%	28	0%	-	63
3:00 AM	4:00 AM	97%	35	0%	-	97%	28	0%	-	63
4:00 AM	5:00 AM	97%	35	0%	-	97%	28	0%	-	63
5:00 AM	6:00 AM	100%	36	0%	-	100%	28	0%	-	64
6:00 AM	7:00 AM	96%	35	0%	-	96%	27	0%	-	62
7:00 AM	8:00 AM	85%	31	0%	-	85%	24	0%	-	55
8:00 AM	9:00 AM	67%	25	19%	6	67%	19	19%	4	54
9:00 AM	10:00 AM	54%	20	33%	9	54%	16	33%	6	51
10:00 AM	11:00 AM	48%	18	47%	13	48%	14	47%	8	53
11:00 AM	12:00 PM	45%	17	55%	15	45%	13	55%	10	55
12:00 PM	1:00 PM	45%	17	89%	25	45%	13	89%	16	71
1:00 PM	2:00 PM	42%	16	100%	27	42%	12	100%	17	72
2:00 PM	3:00 PM	42%	16	73%	20	42%	12	73%	13	61
3:00 PM	4:00 PM	47%	17	73%	20	47%	14	73%	13	64
4:00 PM	5:00 PM	49%	18	66%	18	49%	14	66%	12	62
5:00 PM	6:00 PM	56%	21	70%	19	56%	16	70%	12	68
6:00 PM	7:00 PM	64%	24	75%	21	64%	18	75%	13	76
7:00 PM	8:00 PM	72%	26	70%	19	72%	21	70%	12	78
8:00 PM	9:00 PM	77%	28	54%	15	77%	22	54%	10	75
9:00 PM	10:00 PM	85%	31	48%	13	85%	24	48%	9	77
10:00 PM	11:00 PM	92%	34	0%	-	92%	26	0%	-	60
11:00 PM	12:00 AM	95%	35	0%	-	95%	27	0%	-	62
								Peak Parking Demand		**78**

Notes:

1) "%of Peak Demand" based on Institute of Transportation Engineers (ITE) Parking Generation Manual, 5th Edition Land Use 220 - Multifamily Housing (Low-Rise) and Land Use 820 - Shopping Center Hourly Demand Distributions.

TABLE NO. P-2
SHARED PARKING ANALYSIS
WEEKEND

		45 Beekman Street				High Street				
Use		**Residential**		**Retail**		**Residential**		**Retail**		
Size		36 Units		8,670 Sq. Ft.		28 Units		5,418 Sq. Ft.		**Total Peak**
Demand Factor		1 /Unit		3.0 /1,000 Sq. Ft.		1 /Unit		3.0 /1,000 Sq. Ft.		**Parking**
Peak Hour Demand		36 Spaces		27 Spaces		28 Spaces		17 Spaces		**Demand**
Time of Day		**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**Parking**
Start	**End**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Spaces**
12:00 AM	1:00 AM	92%	34	0%	-	92%	26	0%	-	60
1:00 AM	2:00 AM	92%	34	0%	-	92%	26	0%	-	60
2:00 AM	3:00 AM	92%	34	0%	-	92%	26	0%	-	60
3:00 AM	4:00 AM	92%	34	0%	-	92%	26	0%	-	60
4:00 AM	5:00 AM	92%	34	0%	-	92%	26	0%	-	60
5:00 AM	6:00 AM	100%	36	0%	-	100%	28	0%	-	64
6:00 AM	7:00 AM	99%	36	0%	-	99%	28	0%	-	64
7:00 AM	8:00 AM	97%	35	0%	-	97%	28	0%	-	63
8:00 AM	9:00 AM	92%	34	0%	-	92%	26	0%	-	60
9:00 AM	10:00 AM	83%	30	38%	11	83%	24	38%	7	72
10:00 AM	11:00 AM	79%	29	55%	15	79%	23	55%	10	77
11:00 AM	12:00 PM	71%	26	66%	18	71%	20	66%	12	76
12:00 PM	1:00 PM	68%	25	85%	23	68%	20	85%	15	83
1:00 PM	2:00 PM	65%	24	100%	27	65%	19	100%	17	87
2:00 PM	3:00 PM	62%	23	96%	26	62%	18	96%	17	84
3:00 PM	4:00 PM	66%	24	79%	22	66%	19	79%	14	79
4:00 PM	5:00 PM	66%	24	66%	18	66%	19	66%	12	73
5:00 PM	6:00 PM	67%	25	64%	18	67%	19	64%	11	73
6:00 PM	7:00 PM	70%	26	67%	19	70%	20	67%	12	77
7:00 PM	8:00 PM	78%	29	70%	19	78%	22	70%	12	82
8:00 PM	9:00 PM	77%	28	70%	19	77%	22	70%	12	81
9:00 PM	10:00 PM	80%	29	51%	14	80%	23	51%	9	75
10:00 PM	11:00 PM	82%	30	0%	-	82%	23	0%	-	53
11:00 PM	12:00 AM	88%	32	0%	-	88%	25	0%	-	57
								Peak Parking Demand		**87**

Notes:

1) "%of Peak Demand" based on Institute of Transportation Engineers (ITE) Parking Generation Manual, 5th Edition Land Use 220 - Multifamily Housing (Low-Rise) and Land Use 820 - Shopping Center Hourly Demand Distributions.

TABLE NO. P-1A
SHARED PARKING ANALYSIS
WEEKDAY (WITH RAIL CREDIT)

		45 Beekman Street				High Street				
Use		**Residential**		**Retail**		**Residential**		**Retail**		
Size		36 Units		8,670 Sq. Ft.		28 Units		5,418 Sq. Ft.		**Total Peak Parking Demand**
Demand Factor		1 /Unit		3.0 /1,000 Sq. Ft.		1 /Unit		3.0 /1,000 Sq. Ft.		
Peak Hour Demand[2]		33 Spaces		27 Spaces		26 Spaces		17 Spaces		
Time of Day		**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**Parking**
Start	**End**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Spaces**
12:00 AM	1:00 AM	97%	33	0%	-	97%	26	0%	-	59
1:00 AM	2:00 AM	97%	33	0%	-	97%	26	0%	-	59
2:00 AM	3:00 AM	97%	33	0%	-	97%	26	0%	-	59
3:00 AM	4:00 AM	97%	33	0%	-	97%	26	0%	-	59
4:00 AM	5:00 AM	97%	33	0%	-	97%	26	0%	-	59
5:00 AM	6:00 AM	100%	33	0%	-	100%	26	0%	-	59
6:00 AM	7:00 AM	96%	32	0%	-	96%	25	0%	-	57
7:00 AM	8:00 AM	85%	29	0%	-	85%	23	0%	-	52
8:00 AM	9:00 AM	67%	23	19%	6	67%	18	19%	4	51
9:00 AM	10:00 AM	54%	18	33%	9	54%	15	33%	6	48
10:00 AM	11:00 AM	48%	16	47%	13	48%	13	47%	8	50
11:00 AM	12:00 PM	45%	15	55%	15	45%	12	55%	10	52
12:00 PM	1:00 PM	45%	15	89%	25	45%	12	89%	16	68
1:00 PM	2:00 PM	42%	14	100%	27	42%	11	100%	17	69
2:00 PM	3:00 PM	42%	14	73%	20	42%	11	73%	13	58
3:00 PM	4:00 PM	47%	16	73%	20	47%	13	73%	13	62
4:00 PM	5:00 PM	49%	17	66%	18	49%	13	66%	12	60
5:00 PM	6:00 PM	56%	19	70%	19	56%	15	70%	12	65
6:00 PM	7:00 PM	64%	22	75%	21	64%	17	75%	13	73
7:00 PM	8:00 PM	72%	24	70%	19	72%	19	70%	12	74
8:00 PM	9:00 PM	77%	26	54%	15	77%	21	54%	10	72
9:00 PM	10:00 PM	85%	29	48%	13	85%	23	48%	9	74
10:00 PM	11:00 PM	92%	31	0%	-	92%	24	0%	-	55
11:00 PM	12:00 AM	95%	32	0%	-	95%	25	0%	-	57
								Peak Parking Demand		**74**

Notes:

1) "%of Peak Demand" based on Institute of Transportation Engineers (ITE) Parking Generation Manual, 5th Edition Land Use 220 - Multifamily Housing (Low-Rise) and Land Use 820 - Shopping Center Hourly Demand Distributions.

2) "Peak Hour Demand" assumes a 10% credit for proximity to the Beacon Metro North Train Station based on ITE data.

TABLE NO. P-2A
SHARED PARKING ANALYSIS
WEEKEND (WITH RAIL CREDIT)

		45 Beekman Street				High Street				
Use		**Residential**		**Retail**		**Residential**		**Retail**		
Size		36 Units		8,670 Sq. Ft.		28 Units		5,418 Sq. Ft.		**Total Peak Parking Demand**
Demand Factor		1 /Unit		3.0 /1,000 Sq. Ft.		1 /Unit		3.0 /1,000 Sq. Ft.		
Peak Hour Demand[2]		33 Spaces		27 Spaces		26 Spaces		17 Spaces		
Time of Day		**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**% of Peak**	**Parking**	**Parking**
Start	**End**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Demand**	**Spaces**	**Spaces**
12:00 AM	1:00 AM	92%	31	0%	-	92%	24	0%	-	55
1:00 AM	2:00 AM	92%	31	0%	-	92%	24	0%	-	55
2:00 AM	3:00 AM	92%	31	0%	-	92%	24	0%	-	55
3:00 AM	4:00 AM	92%	31	0%	-	92%	24	0%	-	55
4:00 AM	5:00 AM	92%	31	0%	-	92%	24	0%	-	55
5:00 AM	6:00 AM	100%	33	0%	-	100%	26	0%	-	59
6:00 AM	7:00 AM	99%	33	0%	-	99%	26	0%	-	59
7:00 AM	8:00 AM	97%	33	0%	-	97%	26	0%	-	59
8:00 AM	9:00 AM	92%	31	0%	-	92%	24	0%	-	55
9:00 AM	10:00 AM	83%	28	38%	11	83%	22	38%	7	68
10:00 AM	11:00 AM	79%	27	55%	15	79%	21	55%	10	73
11:00 AM	12:00 PM	71%	24	66%	18	71%	19	66%	12	73
12:00 PM	1:00 PM	68%	23	85%	23	68%	18	85%	15	79
1:00 PM	2:00 PM	65%	22	100%	27	65%	17	100%	17	83
2:00 PM	3:00 PM	62%	21	96%	26	62%	17	96%	17	81
3:00 PM	4:00 PM	66%	22	79%	22	66%	18	79%	14	76
4:00 PM	5:00 PM	66%	22	66%	18	66%	18	66%	12	70
5:00 PM	6:00 PM	67%	23	64%	18	67%	18	64%	11	70
6:00 PM	7:00 PM	70%	24	67%	19	70%	19	67%	12	74
7:00 PM	8:00 PM	78%	26	70%	19	78%	21	70%	12	78
8:00 PM	9:00 PM	77%	26	70%	19	77%	21	70%	12	78
9:00 PM	10:00 PM	80%	27	51%	14	80%	21	51%	9	71
10:00 PM	11:00 PM	82%	28	0%	-	82%	22	0%	-	50
11:00 PM	12:00 AM	88%	30	0%	-	88%	23	0%	-	53
								Peak Parking Demand		**83**

Notes:

1) "%of Peak Demand" based on Institute of Transportation Engineers (ITE) Parking Generation Manual, 5th Edition Land Use 220 - Multifamily Housing (Low-Rise) and Land Use 820 - Shopping Center Hourly Demand Distributions.

2) "Peak Hour Demand" assumes a 10% credit for proximity to the Beacon Metro North Train Station based on ITE data.

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Appendix C | Level of Service Standards

Level of Service Standards

Level of Service for Signalized Intersections

Level of Service (LOS) can be characterized for the entire intersection, each intersection approach, and each lane group. Control delay alone is used to characterize LOS for the entire intersection or an approach. Control delay and volume-to-capacity (v/c) ratio are used to characterize LOS for a lane group. Delay quantifies the increase in travel time due to traffic signal control. It is also a measure of driver discomfort and fuel consumption. The volume-to-capacity ratio quantifies the degree to which a phase's capacity is utilized by a lane group.

- **LOS A** describes operations with a control delay of 10 s/veh or less and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is exceptionally favorable or the cycle length is very short. If it is due to favorable progression, most vehicles arrive during the green indication and travel through the intersection without stopping.
- **LOS B** describes operations with control delay between 10 and 20 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is low and either progression is highly favorable or the cycle length is short. More vehicles stop than with LOS A.
- **LOS C** describes operations with control delay between 20 and 35 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when progression is favorable or the cycle length is moderate.
- **LOS D** describes operations with control delay between 35 and 55 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high and either progression is ineffective or the cycle length is long.
- **LOS E** describes operations with control delay between 55 and 80 s/veh and a volume-to-capacity ratio no greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is high, progression is unfavorable, and the cycle length is long.
- **LOS F** describes operations with control delay exceeding 80 s/veh or a volume-to-capacity ratio greater than 1.0. This level is typically assigned when the volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long.

A lane group can incur a delay less than 80 s/veh when the volume-to-capacity ratio exceeds 1.0. This condition typically occurs when the cycle length is short, the signal progression is favorable, or both. As a result, both the delay and volume-to-capacity ratio are considered when lane group LOS is established. A ratio of 1.0 or more indicates that cycle capacity is fully utilized and represents failure from a capacity perspective (just as delay in excess of 80 s/veh represents failure from a delay perspective).

The Level of Service Criteria for signalized intersections are given in Exhibit 19-8 from the *Highway Capacity Manual, 6th Edition* published by the Transportation Research Board.

Exhibit 19-8 LOS by Volume-to-Capacity Ratio

Control Delay (s/veh)	v/c ≤ 1.0	v/c ≥ 1.0
≤10	A	F
>10-20	B	F
>20-35	C	F
>35-55	D	F
>55-80	E	F
>80	F	F

For approach-based and intersection wide assessments, LOS is defined solely by control delay.

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Level of Service Criteria For Two-Way Stop-Controlled (TWSC) Unsignalized Intersections

Level of Service (LOS) for a two-way stop-controlled (TWSC) intersection is determined by the computed or measured control delay. For motor vehicles, LOS is determined for each minor-street movement (or shared movement) as well as major-street left turns. LOS is not defined for the intersection as a whole or for major-street approaches.

The Level of Service Criteria for TWSC unsignalized intersections are given in Exhibit 20-2 from the Highway Capacity Manual, 6th Edition published by the Transportation Research Board.

Exhibit 20-2 LOS by Volume-to-Capacity Ratio

Control Delay (s/veh)	v/c ≤ 1.0	v/c ≥ 1.0
0-10	A	F
>10-15	B	F
>15-25	C	F
>25-35	D	F
>35-50	E	F
>50	F	F

The LOS criteria apply to each lane on a given approach and to each approach on the minor street.
LOS is not calculated for major-street approaches or for the intersection as a whole.

As Exhibit 20-2 notes, LOS F is assigned to the movement if the volume-to-capacity ratio for the movement exceeds 1.0, regardless of the control delay.

The Level of Service Criteria for unsignalized intersections are somewhat different from the criteria for signalized intersections.

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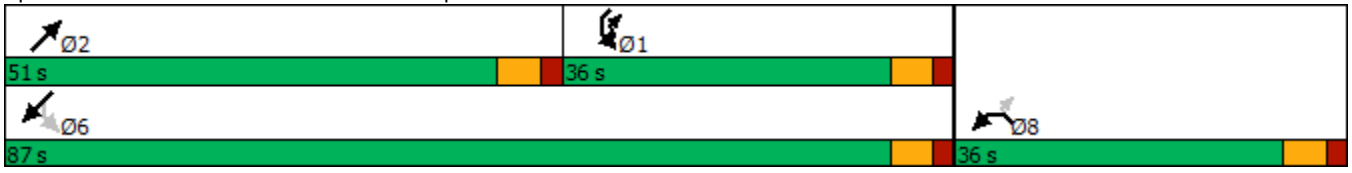
Appendix D | Capacity Analysis

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	58	248	475	45	274	629
Future Volume (vph)	58	248	475	45	274	629
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		1.00			
Frt		0.850	0.988			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1809	0	1778	1854
Flt Permitted	0.950				0.303	
Satd. Flow (perm)	1715	1544	1809	0	567	1854
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	2			1	1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%
Adj. Flow (vph)	61	261	500	47	288	662
Shared Lane Traffic (%)						
Lane Group Flow (vph)	61	261	547	0	288	662
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	1	1	1		1	1
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Call	Call	Call		Call	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.27	0.44	0.73		0.44	0.47
Control Delay	34.1	18.2	25.2		11.1	6.4
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	34.1	18.2	25.2		11.1	6.4
Queue Length 50th (ft)	22	69	171		32	95
Queue Length 95th (ft)	73	175	428		95	264
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	938	894	1294		1147	1768
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.07	0.29	0.42		0.25	0.37

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 66.5	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue





Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	58	248	475	45	274	629
Future Volume (veh/h)	58	248	475	45	274	629
Initial Q (Qb), veh	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00	
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No		No			No
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1894
Adj Flow Rate, veh/h	61	261	500	47	288	662
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	2	2	3
Cap, veh/h	223	331	612	58	371	1132
Arrive On Green	0.14	0.14	0.37	0.37	0.09	0.60
Sat Flow, veh/h	1641	1460	1636	154	1818	1894
Grp Volume(v), veh/h	61	261	0	547	288	662
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1789	1818	1894
Q Serve(g_s), s	1.5	3.5	0.0	12.4	1.6	9.7
Cycle Q Clear(g_c), s	1.5	3.5	0.0	12.4	1.6	9.7
Prop In Lane	1.00	1.00		0.09	1.00	
Lane Grp Cap(c), veh/h	223	331	0	670	371	1132
V/C Ratio(X)	0.27	0.79	0.00	0.82	0.78	0.58
Avail Cap(c_a), veh/h	1092	1104	0	1787	1418	3405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.5	16.4	0.0	12.7	18.6	5.6
Incr Delay (d2), s/veh	0.2	1.6	0.0	2.5	1.3	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	2.3	0.0	4.4	2.6	2.3
Unsig. Movement Delay, s/veh						
LnGrp Delay(d),s/veh	17.7	18.0	0.0	15.2	19.9	6.1
LnGrp LOS	B	B	A	B	B	A
Approach Vol, veh/h	322		547			950
Approach Delay, s/veh	18.0		15.2			10.3
Approach LOS	B		B			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	10.1	22.9			32.9	12.1
Change Period (Y+Rc), s	6.0	6.0			6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0			81.0	30.0
Max Q Clear Time (g_c+I1), s	3.6	14.4			11.7	5.5
Green Ext Time (p_c), s	0.6	2.3			3.0	0.7

Intersection Summary	
HCM 6th Ctrl Delay	13.1
HCM 6th LOS	B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	3	24	8	0	8	16	484	5	1	653	37
Future Volume (vph)	18	3	24	8	0	8	16	484	5	1	653	37
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.928			0.932			0.999			0.993	
Flt Protected		0.980			0.976		0.950					
Satd. Flow (prot)	0	1767	0	0	1661	0	1770	1851	0	0	1915	0
Flt Permitted		0.980			0.976		0.950					
Satd. Flow (perm)	0	1767	0	0	1661	0	1770	1851	0	0	1915	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		8	14		12	8		14	12		6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	4%	13%	2%	2%	2%	6%	2%	2%	4%	11%
Adj. Flow (vph)	19	3	25	8	0	8	17	509	5	1	687	39
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	47	0	0	16	0	17	514	0	0	727	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.2

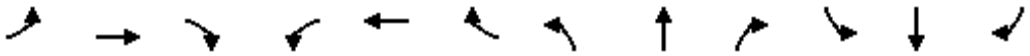
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	18	3	24	8	0	8	16	484	5	1	653	37
Future Vol, veh/h	18	3	24	8	0	8	16	484	5	1	653	37
Conflicting Peds, #/hr	6	0	8	14	0	12	8	0	14	12	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	4	13	2	2	2	6	2	2	4	11
Mvmt Flow	19	3	25	8	0	8	17	509	5	1	687	39

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1279	1279	729	1297	1296	538	734	0	0	528	0	0
Stage 1	717	717	-	560	560	-	-	-	-	-	-	-
Stage 2	562	562	-	737	736	-	-	-	-	-	-	-
Critical Hdwy	6.32	5.72	5.84	7.23	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.32	4.72	-	6.23	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.32	4.72	-	6.23	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.336	3.617	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	190	221	455	132	162	543	871	-	-	1039	-	-
Stage 1	493	508	-	494	511	-	-	-	-	-	-	-
Stage 2	580	577	-	394	425	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	181	212	446	118	155	530	865	-	-	1026	-	-
Mov Cap-2 Maneuver	181	212	-	118	155	-	-	-	-	-	-	-
Stage 1	480	503	-	478	494	-	-	-	-	-	-	-
Stage 2	554	558	-	364	421	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	21.2	25.4	0.3	0
HCM LOS	C	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	865	-	-	269	193	1026	-	-
HCM Lane V/C Ratio	0.019	-	-	0.176	0.087	0.001	-	-
HCM Control Delay (s)	9.2	-	-	21.2	25.4	8.5	0	-
HCM Lane LOS	A	-	-	C	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.3	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	4	29	8	9	7	16	402	2	2	447	236
Future Volume (vph)	103	4	29	8	9	7	16	402	2	2	447	236
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.98		0.99		1.00	1.00		0.99	0.99	
Frt			0.850		0.960			0.999			0.948	
Flt Protected		0.954			0.984		0.950			0.950		
Satd. Flow (prot)	0	1713	1494	0	1835	0	1754	1844	0	1743	1688	0
Flt Permitted		0.714			0.891		0.276			0.472		
Satd. Flow (perm)	0	1280	1460	0	1660	0	509	1844	0	860	1688	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		8						38	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	1		2	2		1	7		14	14		7
Confl. Bikes (#/hr)						1			1			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	25%	7%	2%	2%	2%	6%	6%	2%	2%	5%	2%
Adj. Flow (vph)	111	4	31	9	10	8	17	432	2	2	481	254
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	115	31	0	27	0	17	434	0	2	735	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	



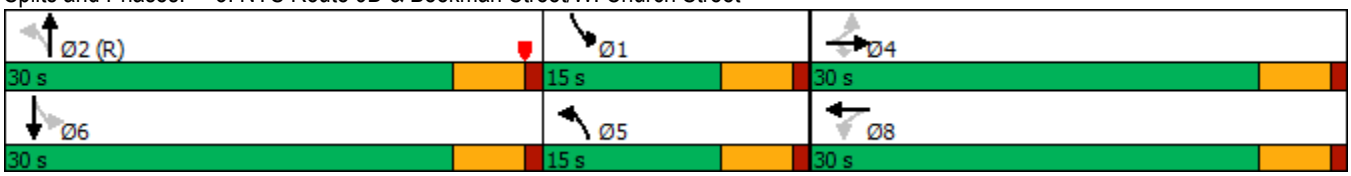
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0		10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				2	2							
v/c Ratio		0.54	0.09		0.10		0.04	0.33		0.00	0.60	
Control Delay		36.2	0.6		18.4		3.2	7.4		5.5	12.9	
Queue Delay		0.0	0.0		0.0		0.0	0.2		0.0	0.0	
Total Delay		36.2	0.6		18.4		3.2	7.6		5.5	12.9	
Queue Length 50th (ft)		51	0		8		1	71		0	128	
Queue Length 95th (ft)		82	0		23		m5	148		3	#542	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		426	554		558		579	1325		816	1224	
Starvation Cap Reductn		0	0		0		0	274		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.27	0.06		0.05		0.03	0.41		0.00	0.60	

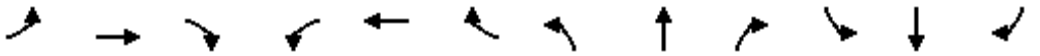
Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street

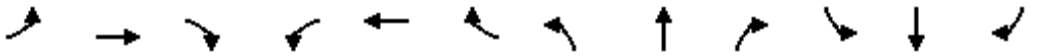




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	103	4	29	8	9	7	16	402	2	2	447	236
Future Volume (veh/h)	103	4	29	8	9	7	16	402	2	2	447	236
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.97	1.00		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1817	1506	1773	2263	2263	2263	2046	2046	2106	1817	1773	1817
Adj Flow Rate, veh/h	111	4	31	9	10	8	17	432	2	2	481	254
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	25	7	2	2	2	6	6	2	2	5	2
Cap, veh/h	231	6	286	82	96	48	633	678	3	714	358	189
Arrive On Green	0.19	0.19	0.19	0.19	0.19	0.19	0.28	0.33	0.33	0.28	0.33	0.33
Sat Flow, veh/h	716	33	1494	95	501	251	1948	2034	9	1731	1074	567
Grp Volume(v), veh/h	115	0	31	27	0	0	17	0	434	2	0	735
Grp Sat Flow(s),veh/h/ln	749	0	1494	846	0	0	1948	0	2044	1731	0	1642
Q Serve(g_s), s	0.0	0.0	1.3	0.1	0.0	0.0	0.0	0.0	13.5	0.0	0.0	25.0
Cycle Q Clear(g_c), s	12.2	0.0	1.3	12.3	0.0	0.0	0.0	0.0	13.5	0.0	0.0	25.0
Prop In Lane	0.97		1.00	0.33		0.30	1.00		0.00	1.00		0.35
Lane Grp Cap(c), veh/h	237	0	286	226	0	0	633	0	681	714	0	547
V/C Ratio(X)	0.48	0.00	0.11	0.12	0.00	0.00	0.03	0.00	0.64	0.00	0.00	1.34
Avail Cap(c_a), veh/h	398	0	498	497	0	0	633	0	681	714	0	547
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.94	0.00	0.94	1.00	0.00	1.00
Uniform Delay (d), s/veh	29.4	0.0	25.1	25.3	0.0	0.0	19.7	0.0	21.2	12.2	0.0	25.0
Incr Delay (d2), s/veh	0.6	0.0	0.1	0.1	0.0	0.0	0.0	0.0	4.2	0.0	0.0	166.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.4	0.4	0.0	0.0	0.2	0.0	6.9	0.0	0.0	34.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	30.0	0.0	25.1	25.4	0.0	0.0	19.7	0.0	25.4	12.2	0.0	191.4
LnGrp LOS	C	A	C	C	A	A	B	A	C	B	A	F
Approach Vol, veh/h		146			27			451			737	
Approach Delay, s/veh		29.0			25.4			25.2			190.9	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	25.7	30.0		19.3	25.7	30.0		19.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	2.0	15.5		14.2	2.0	27.0		14.3				
Green Ext Time (p_c), s	0.0	0.7		0.2	0.0	0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		115.3	
HCM 6th LOS		F	



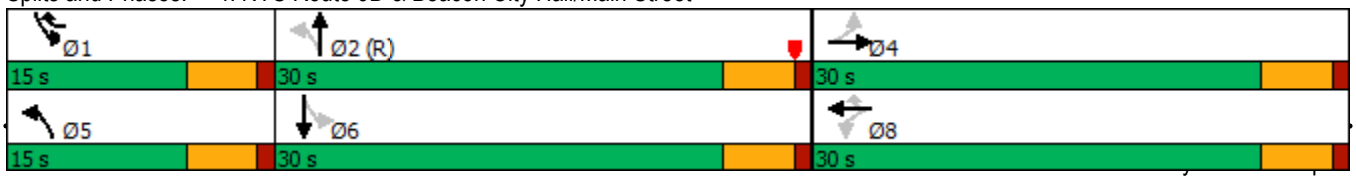
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	4	2	8	6	107	4	310	24	222	257	5
Future Volume (vph)	3	4	2	8	6	107	4	310	24	222	257	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.96		1.00			1.00	
Frt		0.973				0.850		0.989			0.997	
Flt Protected		0.984			0.973		0.950			0.950		
Satd. Flow (prot)	0	1797	0	0	1923	1647	1832	1859	0	1743	1846	0
Flt Permitted		0.883			0.817		0.578			0.425		
Satd. Flow (perm)	0	1613	0	0	1614	1574	1115	1859	0	780	1846	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		3									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			9			15			21			12
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	2%	5%	2%	1%	0%
Adj. Flow (vph)	5	7	3	9	7	118	5	392	30	252	292	6
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	15	0	0	16	118	5	422	0	252	298	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

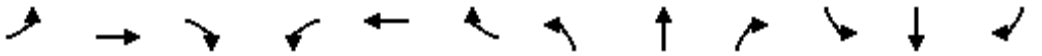
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0	15.0	15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	20.0%	20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0	10.0	10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	15	15		15	15			21				
v/c Ratio		0.08			0.08	0.39	0.01	0.35		0.33	0.19	
Control Delay		23.0			26.1	25.1	5.8	11.0		4.3	4.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		23.0			26.1	25.1	5.8	11.0		4.3	4.0	
Queue Length 50th (ft)		5			7	53	0	50		0	0	
Queue Length 95th (ft)		10			19	51	5	220		59	72	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		539			538	349	969	1211		780	1560	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.03			0.03	0.34	0.01	0.35		0.32	0.19	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	3	4	2	8	6	107	4	310	24	222	257	5
Future Volume (veh/h)	3	4	2	8	6	107	4	310	24	222	257	5
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.95		0.94	0.97		0.94	0.99		0.96	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2185	2018	1988	1943	1817	1832	1847
Adj Flow Rate, veh/h	5	7	3	9	7	118	5	392	30	252	292	6
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	2	0	2	5	2	1	0
Cap, veh/h	109	129	44	191	136	381	783	1066	82	675	1185	24
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.00	0.59	0.59	0.08	0.66	0.66
Sat Flow, veh/h	334	969	326	871	1016	1747	1922	1817	139	1731	1788	37
Grp Volume(v), veh/h	15	0	0	16	0	118	5	0	422	252	0	298
Grp Sat Flow(s),veh/h/ln	1629	0	0	1887	0	1747	1922	0	1956	1731	0	1825
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	4.3	0.1	0.0	8.5	3.9	0.0	4.9
Cycle Q Clear(g_c), s	0.5	0.0	0.0	0.5	0.0	4.3	0.1	0.0	8.5	3.9	0.0	4.9
Prop In Lane	0.33		0.20	0.56		1.00	1.00		0.07	1.00		0.02
Lane Grp Cap(c), veh/h	282	0	0	327	0	381	783	0	1148	675	0	1209
V/C Ratio(X)	0.05	0.00	0.00	0.05	0.00	0.31	0.01	0.00	0.37	0.37	0.00	0.25
Avail Cap(c_a), veh/h	589	0	0	692	0	730	1032	0	1148	768	0	1209
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.79	0.00	0.79
Uniform Delay (d), s/veh	28.4	0.0	0.0	28.4	0.0	24.9	6.3	0.0	8.2	5.1	0.0	5.1
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.9	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.2	0.0	1.7	0.0	0.0	3.4	1.0	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.4	0.0	0.0	28.4	0.0	25.1	6.3	0.0	9.1	5.2	0.0	5.5
LnGrp LOS	C	A	A	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		15			134			427			550	
Approach Delay, s/veh		28.4			25.5			9.0			5.4	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.0	49.0		15.0	5.3	54.7		15.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	5.9	10.5		2.5	2.1	6.9		6.3				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		9.5	
HCM 6th LOS		A	

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	1	1	1	135	261	0
Future Volume (vph)	1	1	1	135	261	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976					
Satd. Flow (prot)	1838	0	0	1939	1909	0
Flt Permitted	0.976					
Satd. Flow (perm)	1838	0	0	1939	1909	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	16	16			14
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%
Adj. Flow (vph)	1	1	1	171	330	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	0	172	330	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	1	1	1	135	261	0
Future Vol, veh/h	1	1	1	135	261	0
Conflicting Peds, #/hr	14	16	16	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	4	2	2
Mvmt Flow	1	1	1	171	330	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	533	362	346	0	-	0
Stage 1	346	-	-	-	-	-
Stage 2	187	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	682	755	1213	-	-	-
Stage 1	868	-	-	-	-	-
Stage 2	937	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	662	733	1195	-	-	-
Mov Cap-2 Maneuver	662	-	-	-	-	-
Stage 1	855	-	-	-	-	-
Stage 2	924	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.2	0.1	0
HCM LOS	B		

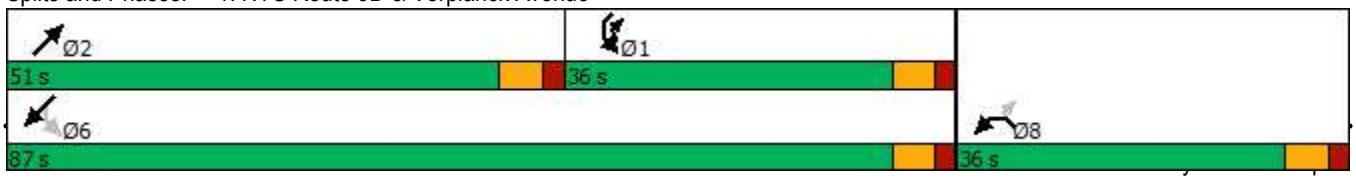
Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1195	-	696	-	-
HCM Lane V/C Ratio	0.001	-	0.004	-	-
HCM Control Delay (s)	8	0	10.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	59	297	625	50	219	574
Future Volume (vph)	59	297	625	50	219	574
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		1.00			
Frt		0.850	0.990			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1813	0	1778	1854
Flt Permitted	0.950				0.217	
Satd. Flow (perm)	1720	1544	1813	0	406	1854
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	1			3	3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%
Adj. Flow (vph)	62	313	658	53	231	604
Shared Lane Traffic (%)						
Lane Group Flow (vph)	62	313	711	0	231	604
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	1	1	1		1	1
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Call	Call	Call		Call	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	3		3			
v/c Ratio	0.36	0.58	0.77		0.38	0.40
Control Delay	45.1	26.9	27.9		10.7	4.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	45.1	26.9	27.9		10.7	4.9
Queue Length 50th (ft)	34	139	313		25	85
Queue Length 95th (ft)	77	213	#728		75	229
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	589	614	928		830	1650
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.11	0.51	0.77		0.28	0.37

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 89.7	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue

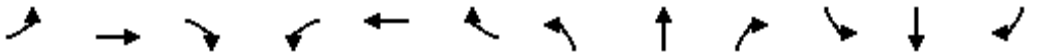




Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	59	297	625	50	219	574	
Future Volume (veh/h)	59	297	625	50	219	574	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1894	
Adj Flow Rate, veh/h	62	313	658	53	231	604	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	3	
Cap, veh/h	292	367	744	60	293	1178	
Arrive On Green	0.18	0.18	0.45	0.45	0.07	0.62	
Sat Flow, veh/h	1641	1460	1659	134	1818	1894	
Grp Volume(v), veh/h	62	313	0	711	231	604	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1793	1818	1894	
Q Serve(g_s), s	1.9	7.9	0.0	21.7	2.0	10.6	
Cycle Q Clear(g_c), s	1.9	7.9	0.0	21.7	2.0	10.6	
Prop In Lane	1.00	1.00		0.07	1.00		
Lane Grp Cap(c), veh/h	292	367	0	804	293	1178	
V/C Ratio(X)	0.21	0.85	0.00	0.88	0.79	0.51	
Avail Cap(c_a), veh/h	821	837	0	1345	1069	2557	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	21.1	21.4	0.0	15.1	25.7	6.3	
Incr Delay (d2), s/veh	0.1	2.2	0.0	4.1	1.8	0.3	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.7	4.0	0.0	8.3	3.1	3.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.2	23.6	0.0	19.2	27.5	6.6	
LnGrp LOS	C	C	A	B	C	A	
Approach Vol, veh/h	375		711			835	
Approach Delay, s/veh	23.2		19.2			12.4	
Approach LOS	C		B			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	10.4	32.9				43.3	16.7
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	4.0	23.7				12.6	9.9
Green Ext Time (p_c), s	0.4	3.1				2.7	0.8

Intersection Summary		
HCM 6th Ctrl Delay		17.0
HCM 6th LOS		B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	5	11	6	3	4	14	638	5	5	584	24
Future Volume (vph)	21	5	11	6	3	4	14	638	5	5	584	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.959			0.961			0.999			0.995	
Flt Protected		0.972			0.976		0.950					
Satd. Flow (prot)	0	1830	0	0	1696	0	1770	1923	0	0	1945	0
Flt Permitted		0.972			0.976		0.950					
Satd. Flow (perm)	0	1830	0	0	1696	0	1770	1923	0	0	1945	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	4		4	2		2	4		2	2		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	25%	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	23	5	12	7	3	4	15	693	5	5	635	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	40	0	0	14	0	15	698	0	0	666	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	5	11	6	3	4	14	638	5	5	584	24
Future Vol, veh/h	21	5	11	6	3	4	14	638	5	5	584	24
Conflicting Peds, #/hr	4	0	4	2	0	2	4	0	2	2	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	25	2	2	2	2	3	2
Mvmt Flow	23	5	12	7	3	4	15	693	5	5	635	26

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1395	1392	656	1399	1403	702	665	0	0	700	0	0
Stage 1	662	662	-	728	728	-	-	-	-	-	-	-
Stage 2	733	730	-	671	675	-	-	-	-	-	-	-
Critical Hdwy	6.32	5.72	5.82	7.12	6.52	6.45	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.32	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.32	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.525	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	162	193	501	118	140	401	924	-	-	897	-	-
Stage 1	522	532	-	415	429	-	-	-	-	-	-	-
Stage 2	485	503	-	446	453	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	153	187	497	110	136	399	921	-	-	895	-	-
Mov Cap-2 Maneuver	153	187	-	110	136	-	-	-	-	-	-	-
Stage 1	512	525	-	408	421	-	-	-	-	-	-	-
Stage 2	467	494	-	425	447	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27.6	31.5	0.2	0.1
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	921	-	-	199	150	895	-	-
HCM Lane V/C Ratio	0.017	-	-	0.202	0.094	0.006	-	-
HCM Control Delay (s)	9	-	-	27.6	31.5	9	0	-
HCM Lane LOS	A	-	-	D	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.3	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	275	12	24	1	7	6	31	376	12	4	462	135
Future Volume (vph)	275	12	24	1	7	6	31	376	12	4	462	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.99		1.00	1.00		1.00	0.99	
Frt			0.850		0.941			0.995			0.966	
Flt Protected		0.954			0.997		0.950			0.950		
Satd. Flow (prot)	0	1759	1567	0	1815	0	1690	1890	0	1743	1746	0
Flt Permitted		0.723			0.985		0.241			0.426		
Satd. Flow (perm)	0	1328	1567	0	1793	0	428	1890	0	781	1746	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85		7			2			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	2					2	6		2	2		6
Confl. Bikes (#/hr)						1			1			1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	10%	3%	2%	2%	3%	2%
Adj. Flow (vph)	299	13	26	1	8	7	34	409	13	4	502	147
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	312	26	0	16	0	34	422	0	4	649	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

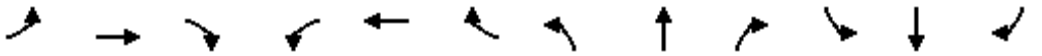
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0		20.0	30.0		20.0	30.0	
Total Split (%)	44.4%	44.4%	44.4%	44.4%	44.4%		22.2%	33.3%		22.2%	33.3%	
Maximum Green (s)	35.0	35.0	35.0	35.0	35.0		15.0	25.0		15.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				2	2							
v/c Ratio		0.82	0.05		0.03		0.11	0.38		0.01	0.68	
Control Delay		46.3	0.2		14.3		9.8	12.0		10.5	22.9	
Queue Delay		0.0	0.0		0.0		0.0	0.4		0.0	0.0	
Total Delay		46.3	0.2		14.3		9.8	12.3		10.5	22.9	
Queue Length 50th (ft)		164	0		4		7	172		1	272	
Queue Length 95th (ft)		230	0		16		16	142		6	#554	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		516	661		701		523	1099		714	954	
Starvation Cap Reductn		0	0		0		0	265		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.60	0.04		0.02		0.07	0.51		0.01	0.68	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street

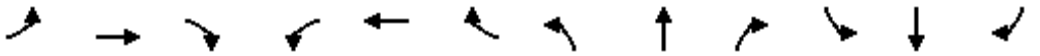




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	275	12	24	1	7	6	31	376	12	4	462	135
Future Volume (veh/h)	275	12	24	1	7	6	31	376	12	4	462	135
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2263	2263	2263	1986	2091	2106	1817	1803	1817
Adj Flow Rate, veh/h	299	13	26	1	8	7	34	409	13	4	502	147
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	10	3	2	2	3	2
Cap, veh/h	174	4	607	43	263	205	395	559	18	456	369	108
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.17	0.28	0.28	0.17	0.28	0.28
Sat Flow, veh/h	246	11	1561	0	677	526	1891	2013	64	1731	1328	389
Grp Volume(v), veh/h	312	0	26	16	0	0	34	0	422	4	0	649
Grp Sat Flow(s),veh/h/ln	257	0	1561	1203	0	0	1891	0	2077	1731	0	1717
Q Serve(g_s), s	0.0	0.0	0.9	0.0	0.0	0.0	0.0	0.0	16.6	0.0	0.0	25.0
Cycle Q Clear(g_c), s	35.0	0.0	0.9	35.0	0.0	0.0	0.0	0.0	16.6	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.06		0.44	1.00		0.03	1.00		0.23
Lane Grp Cap(c), veh/h	178	0	607	510	0	0	395	0	577	456	0	477
V/C Ratio(X)	1.75	0.00	0.04	0.03	0.00	0.00	0.09	0.00	0.73	0.01	0.00	1.36
Avail Cap(c_a), veh/h	178	0	607	510	0	0	395	0	577	456	0	477
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.93	0.00	0.93	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.2	0.0	17.1	18.1	0.0	0.0	31.3	0.0	29.5	24.7	0.0	32.5
Incr Delay (d2), s/veh	359.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.4	0.0	0.0	175.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	21.7	0.0	0.3	0.2	0.0	0.0	0.6	0.0	9.2	0.1	0.0	33.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	394.9	0.0	17.1	18.1	0.0	0.0	31.3	0.0	36.9	24.7	0.0	207.9
LnGrp LOS	F	A	B	B	A	A	C	A	D	C	A	F
Approach Vol, veh/h		338			16			456			653	
Approach Delay, s/veh		365.9			18.1			36.5			206.7	
Approach LOS		F			B			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	30.0		40.0	20.0	30.0		40.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	25.0		35.0	15.0	25.0		35.0				
Max Q Clear Time (g_c+I1), s	2.0	18.6		37.0	2.0	27.0		37.0				
Green Ext Time (p_c), s	0.0	0.5		0.0	0.0	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			188.4									
HCM 6th LOS			F									

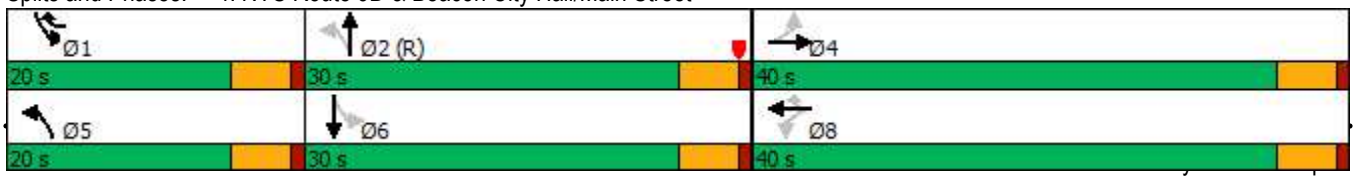


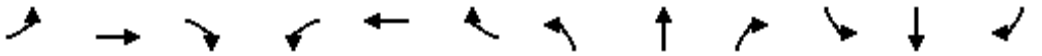
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	7	1	35	1	152	1	265	64	215	274	0
Future Volume (vph)	1	7	1	35	1	152	1	265	64	215	274	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00				0.95		0.99				
Frt		0.983				0.850		0.971				
Flt Protected		0.994			0.954		0.950			0.950		
Satd. Flow (prot)	0	1838	0	0	1885	1647	1832	1804	0	1743	1853	0
Flt Permitted		0.969			0.720		0.571			0.418		
Satd. Flow (perm)	0	1792	0	0	1423	1566	1101	1804	0	767	1853	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		2										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			9			15			21			12
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	2%	5%	2%	1%	0%
Adj. Flow (vph)	2	12	2	38	1	167	1	335	81	244	311	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	16	0	0	39	167	1	416	0	244	311	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	40.0	40.0		40.0	40.0	20.0	20.0	30.0		20.0	30.0	
Total Split (%)	44.4%	44.4%		44.4%	44.4%	22.2%	22.2%	33.3%		22.2%	33.3%	
Maximum Green (s)	35.0	35.0		35.0	35.0	15.0	15.0	25.0		15.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	9	9		15	15			21				
v/c Ratio		0.06			0.20	0.42	0.00	0.38		0.33	0.21	
Control Delay		25.9			32.2	26.2	7.0	14.7		5.8	4.5	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.2	
Total Delay		25.9			32.2	26.2	7.0	14.7		5.8	4.7	
Queue Length 50th (ft)		8			22	80	0	99		16	20	
Queue Length 95th (ft)		14			43	89	2	232		69	73	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		698			553	464	969	1100		775	1476	
Starvation Cap Reductn		0			0	0	0	0		0	560	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.02			0.07	0.36	0.00	0.38		0.31	0.34	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	7	1	35	1	152	1	265	64	215	274	0
Future Volume (veh/h)	1	7	1	35	1	152	1	265	64	215	274	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.95	0.97		0.95	0.99		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2185	2018	1988	1943	1817	1832	1847
Adj Flow Rate, veh/h	2	12	2	38	1	167	1	335	81	244	311	0
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	2	0	2	5	2	1	0
Cap, veh/h	57	219	33	314	7	392	786	942	228	679	1255	0
Arrive On Green	0.15	0.15	0.15	0.15	0.15	0.15	0.00	0.61	0.61	0.07	0.68	0.00
Sat Flow, veh/h	81	1485	224	1592	51	1757	1922	1533	371	1731	1832	0
Grp Volume(v), veh/h	16	0	0	39	0	167	1	0	416	244	311	0
Grp Sat Flow(s),veh/h/ln	1791	0	0	1643	0	1757	1922	0	1904	1731	1832	0
Q Serve(g_s), s	0.0	0.0	0.0	1.0	0.0	7.4	0.0	0.0	9.7	4.3	5.8	0.0
Cycle Q Clear(g_c), s	0.7	0.0	0.0	1.7	0.0	7.4	0.0	0.0	9.7	4.3	5.8	0.0
Prop In Lane	0.12		0.12	0.97		1.00	1.00		0.19	1.00		0.00
Lane Grp Cap(c), veh/h	309	0	0	322	0	392	786	0	1170	679	1255	0
V/C Ratio(X)	0.05	0.00	0.00	0.12	0.00	0.43	0.00	0.00	0.36	0.36	0.25	0.00
Avail Cap(c_a), veh/h	723	0	0	712	0	816	1104	0	1170	844	1255	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.71	0.71	0.00
Uniform Delay (d), s/veh	33.0	0.0	0.0	33.4	0.0	30.3	6.7	0.0	8.6	5.5	5.4	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0	0.8	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.7	0.0	3.1	0.0	0.0	3.9	1.3	2.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.0	0.0	0.0	33.4	0.0	30.6	6.7	0.0	9.4	5.6	5.7	0.0
LnGrp LOS	C	A	A	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		16			206			417			555	
Approach Delay, s/veh		33.0			31.1			9.4			5.7	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.4	60.3		18.3	5.1	66.6		18.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	25.0		35.0	15.0	25.0		35.0				
Max Q Clear Time (g_c+I1), s	6.3	11.7		2.7	2.0	7.8		9.4				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		11.7	
HCM 6th LOS		B	

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	6	0	309	171	2
Future Volume (vph)	2	6	0	309	171	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.902				0.998	
Flt Protected	0.987					
Satd. Flow (prot)	1799	0	0	1977	1869	0
Flt Permitted	0.987					
Satd. Flow (perm)	1799	0	0	1977	1869	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	8	8			14
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	3	8	0	435	241	3
Shared Lane Traffic (%)						
Lane Group Flow (vph)	11	0	0	435	244	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.2

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	6	0	309	171	2
Future Vol, veh/h	2	6	0	309	171	2
Conflicting Peds, #/hr	14	8	8	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	4	2
Mvmt Flow	3	8	0	435	241	3

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	706	265	258	0	-	0
Stage 1	257	-	-	-	-	-
Stage 2	449	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	595	833	1307	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	580	816	1290	-	-	-
Mov Cap-2 Maneuver	580	-	-	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	814	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	9.9	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1290	-	741	-	-
HCM Lane V/C Ratio	-	-	0.015	-	-
HCM Control Delay (s)	0	-	9.9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	0	0	0	311	173	0
Future Volume (vph)	0	0	0	311	173	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	16	11	12
Grade (%)	0%			2%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						
Flt Protected						
Satd. Flow (prot)	2049	0	0	2090	1766	0
Flt Permitted						
Satd. Flow (perm)	2049	0	0	2090	1766	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			216	408	
Travel Time (s)	4.5			4.9	9.3	
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	0	0	0	438	244	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	438	244	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.86	1.04	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

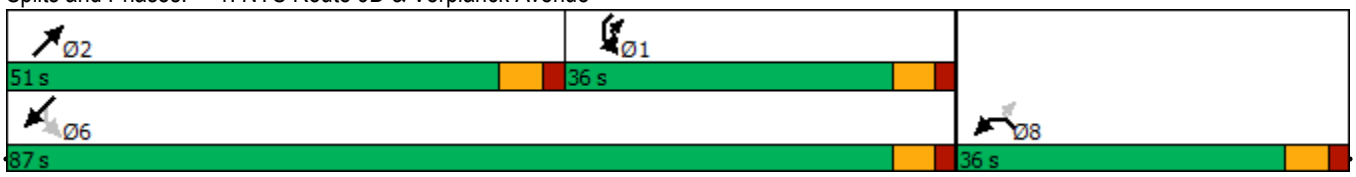
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	43	247	547	35	204	605
Future Volume (vph)	43	247	547	35	204	605
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98		1.00			
Frt		0.850	0.992			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1818	0	1778	1872
Flt Permitted	0.950				0.264	
Satd. Flow (perm)	1688	1544	1818	0	494	1872
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	7			1	1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	47	268	595	38	222	658
Shared Lane Traffic (%)						
Lane Group Flow (vph)	47	268	633	0	222	658
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	1	1	1		1	1
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Call	Call	Call		Call	Call
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.23	0.52	0.72		0.33	0.42
Control Delay	37.3	23.2	23.6		8.3	4.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	37.3	23.2	23.6		8.3	4.9
Queue Length 50th (ft)	21	93	223		22	90
Queue Length 95th (ft)	60	181	#571		73	260
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	790	769	1232		1045	1769
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.06	0.35	0.51		0.21	0.37

Intersection Summary

Area Type: Other
Cycle Length: 123
Actuated Cycle Length: 72.4
Natural Cycle: 55
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue

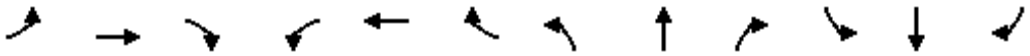




Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	43	247	547	35	204	605	
Future Volume (veh/h)	43	247	547	35	204	605	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1909	
Adj Flow Rate, veh/h	47	268	595	38	222	658	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	276	330	701	45	295	1131	
Arrive On Green	0.17	0.17	0.41	0.41	0.06	0.59	
Sat Flow, veh/h	1641	1460	1690	108	1818	1909	
Grp Volume(v), veh/h	47	268	0	633	222	658	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1798	1818	1909	
Q Serve(g_s), s	1.2	5.8	0.0	15.9	0.6	10.7	
Cycle Q Clear(g_c), s	1.2	5.8	0.0	15.9	0.6	10.7	
Prop In Lane	1.00	1.00		0.06	1.00		
Lane Grp Cap(c), veh/h	276	330	0	746	295	1131	
V/C Ratio(X)	0.17	0.81	0.00	0.85	0.75	0.58	
Avail Cap(c_a), veh/h	983	959	0	1614	1279	3086	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	17.8	18.4	0.0	13.2	22.0	6.4	
Incr Delay (d2), s/veh	0.1	1.9	0.0	2.8	1.5	0.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.4	2.7	0.0	5.7	2.4	3.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	18.0	20.2	0.0	16.0	23.4	6.8	
LnGrp LOS	B	C	A	B	C	A	
Approach Vol, veh/h	315		633			880	
Approach Delay, s/veh	19.9		16.0			11.0	
Approach LOS	B		B			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	8.9	26.8				35.7	14.4
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	2.6	17.9				12.7	7.8
Green Ext Time (p_c), s	0.4	2.8				3.0	0.7

Intersection Summary			
HCM 6th Ctrl Delay		14.3	
HCM 6th LOS		B	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	1	10	3	5	10	11	543	4	7	619	22
Future Volume (vph)	29	1	10	3	5	10	11	543	4	7	619	22
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.965			0.922			0.999			0.995	
Flt Protected		0.965			0.992		0.950				0.999	
Satd. Flow (prot)	0	1815	0	0	1761	0	1770	1923	0	0	1961	0
Flt Permitted		0.965			0.992		0.950				0.999	
Satd. Flow (perm)	0	1815	0	0	1761	0	1770	1923	0	0	1961	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		6	2		2	6		2	2		6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	31	1	11	3	5	11	12	578	4	7	659	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	43	0	0	19	0	12	582	0	0	689	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

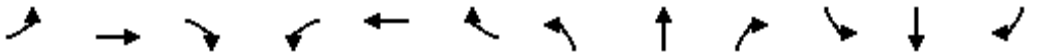
Intersection	
Int Delay, s/veh	1.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	1	10	3	5	10	11	543	4	7	619	22
Future Vol, veh/h	29	1	10	3	5	10	11	543	4	7	619	22
Conflicting Peds, #/hr	6	0	6	2	0	2	6	0	2	2	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	31	1	11	3	5	11	12	578	4	7	659	23

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1309	1299	683	1303	1308	588	688	0	0	584	0	0
Stage 1	691	691	-	606	606	-	-	-	-	-	-	-
Stage 2	618	608	-	697	702	-	-	-	-	-	-	-
Critical Hdwy	6.33	5.72	5.82	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.33	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.33	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	181	215	485	138	159	509	906	-	-	991	-	-
Stage 1	505	520	-	484	487	-	-	-	-	-	-	-
Stage 2	545	556	-	431	440	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	168	208	480	131	154	505	901	-	-	989	-	-
Mov Cap-2 Maneuver	168	208	-	131	154	-	-	-	-	-	-	-
Stage 1	495	512	-	477	480	-	-	-	-	-	-	-
Stage 2	518	548	-	414	433	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	27.5	21.4	0.2	0.1
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	901	-	-	202	239	989	-	-
HCM Lane V/C Ratio	0.013	-	-	0.211	0.08	0.008	-	-
HCM Control Delay (s)	9	-	-	27.5	21.4	8.7	0	-
HCM Lane LOS	A	-	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.8	0.3	0	-	-

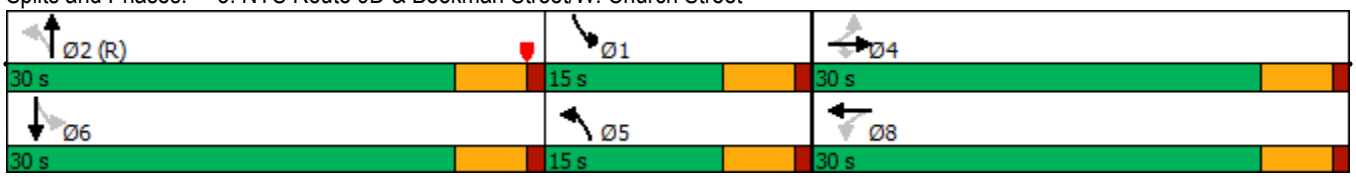


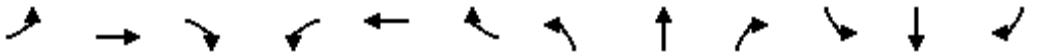
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	5	32	9	3	7	60	411	3	7	445	180
Future Volume (vph)	140	5	32	9	3	7	60	411	3	7	445	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98	0.97		0.98		1.00	1.00		1.00	0.99	
Frt			0.850		0.949			0.999			0.957	
Flt Protected		0.954			0.977		0.950			0.950		
Satd. Flow (prot)	0	1759	1567	0	1787	0	1823	1916	0	1743	1741	0
Flt Permitted		0.719			0.856		0.237			0.425		
Satd. Flow (perm)	0	1304	1524	0	1563	0	454	1916	0	777	1741	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		8						29	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	11		3	3		11	6		9	9		6
Confl. Bikes (#/hr)			3									
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	157	6	36	10	3	8	67	462	3	8	500	202
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	163	36	0	21	0	67	465	0	8	702	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0		10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				11	11							
v/c Ratio		0.65	0.10		0.07		0.18	0.38		0.01	0.69	
Control Delay		38.8	0.5		16.6		8.4	10.7		6.4	18.9	
Queue Delay		0.0	0.0		0.0		0.0	0.3		0.0	0.0	
Total Delay		38.8	0.5		16.6		8.4	11.0		6.4	18.9	
Queue Length 50th (ft)		71	0		5		14	152		1	208	
Queue Length 95th (ft)		111	0		19		m21	176		7	#504	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		434	576		526		522	1238		679	1015	
Starvation Cap Reductn		0	0		0		0	300		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.38	0.06		0.04		0.13	0.50		0.01	0.69	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street

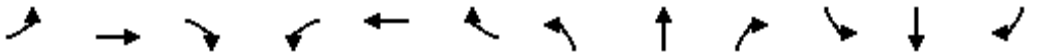




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	5	32	9	3	7	60	411	3	7	445	180
Future Volume (veh/h)	140	5	32	9	3	7	60	411	3	7	445	180
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.98		0.95	0.98		0.97	1.00		0.99	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2263	2263	2263	2106	2106	2106	1817	1817	1817
Adj Flow Rate, veh/h	157	6	36	10	3	8	67	462	3	8	500	202
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	312	8	307	116	51	59	618	697	5	675	408	165
Arrive On Green	0.21	0.21	0.21	0.21	0.21	0.21	0.26	0.33	0.33	0.26	0.33	0.33
Sat Flow, veh/h	1056	40	1485	217	248	286	2006	2090	14	1731	1225	495
Grp Volume(v), veh/h	163	0	36	21	0	0	67	0	465	8	0	702
Grp Sat Flow(s),veh/h/ln	1097	0	1485	752	0	0	2006	0	2103	1731	0	1720
Q Serve(g_s), s	0.0	0.0	1.5	0.1	0.0	0.0	0.0	0.0	14.2	0.0	0.0	25.0
Cycle Q Clear(g_c), s	11.5	0.0	1.5	11.6	0.0	0.0	0.0	0.0	14.2	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.48		0.38	1.00		0.01	1.00		0.29
Lane Grp Cap(c), veh/h	321	0	307	226	0	0	618	0	701	675	0	573
V/C Ratio(X)	0.51	0.00	0.12	0.09	0.00	0.00	0.11	0.00	0.66	0.01	0.00	1.22
Avail Cap(c_a), veh/h	495	0	495	452	0	0	618	0	701	675	0	573
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.91	0.00	0.91	1.00	0.00	1.00
Uniform Delay (d), s/veh	28.2	0.0	24.2	24.4	0.0	0.0	20.5	0.0	21.4	13.4	0.0	25.0
Incr Delay (d2), s/veh	0.5	0.0	0.1	0.1	0.0	0.0	0.0	0.0	4.5	0.0	0.0	115.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.5	0.3	0.0	0.0	0.8	0.0	7.4	0.1	0.0	27.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.6	0.0	24.3	24.5	0.0	0.0	20.6	0.0	25.9	13.4	0.0	140.8
LnGrp LOS	C	A	C	C	A	A	C	A	C	B	A	F
Approach Vol, veh/h		199			21			532			710	
Approach Delay, s/veh		27.9			24.5			25.2			139.4	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	24.5	30.0		20.5	24.5	30.0		20.5				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	2.0	16.2		13.5	2.0	27.0		13.6				
Green Ext Time (p_c), s	0.0	0.7		0.3	0.0	0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		81.0	
HCM 6th LOS		F	

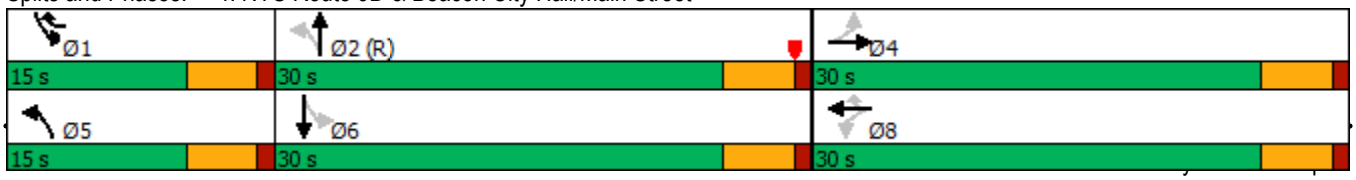


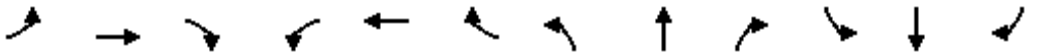
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	1	1	23	0	185	1	288	37	233	250	2
Future Volume (vph)	1	1	1	23	0	185	1	288	37	233	250	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.97		0.99			1.00	
Frt		0.955				0.850		0.983			0.999	
Flt Protected		0.984			0.950		0.950			0.950		
Satd. Flow (prot)	0	1751	0	0	1877	1663	1832	1832	0	1760	1851	0
Flt Permitted		0.890			0.756		0.591			0.451		
Satd. Flow (perm)	0	1584	0	0	1494	1614	1140	1832	0	836	1851	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		1									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			14			6			48			11
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	2%	5%	1%	1%	0%
Adj. Flow (vph)	1	1	1	26	0	208	1	327	42	253	272	2
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	3	0	0	26	208	1	369	0	253	274	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0	15.0	15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	20.0%	20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0	10.0	10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	14	14		6	6			48				
v/c Ratio		0.02			0.14	0.58	0.00	0.32		0.31	0.18	
Control Delay		21.0			27.5	29.2	6.0	11.3		4.2	4.1	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		21.0			27.5	29.2	6.0	11.3		4.2	4.1	
Queue Length 50th (ft)		1			12	92	0	55		0	0	
Queue Length 95th (ft)		5			25	83	2	220		m57	m65	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		528			498	377	952	1138		829	1561	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.01			0.05	0.55	0.00	0.32		0.31	0.18	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	1	1	1	23	0	185	1	288	37	233	250	2
Future Volume (veh/h)	1	1	1	23	0	185	1	288	37	233	250	2
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.96		0.98	0.99		0.96	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2200	2018	1988	1943	1832	1832	1847
Adj Flow Rate, veh/h	1	1	1	26	0	208	1	327	42	253	272	2
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	1	0	2	5	1	1	0
Cap, veh/h	120	113	85	357	0	455	754	949	122	681	1156	9
Arrive On Green	0.16	0.16	0.16	0.16	0.00	0.16	0.00	0.55	0.55	0.08	0.64	0.64
Sat Flow, veh/h	344	696	520	1607	0	1830	1922	1716	220	1745	1816	13
Grp Volume(v), veh/h	3	0	0	26	0	208	1	0	369	253	0	274
Grp Sat Flow(s),veh/h/ln	1561	0	0	1608	0	1830	1922	0	1936	1745	0	1830
Q Serve(g_s), s	0.0	0.0	0.0	0.9	0.0	7.2	0.0	0.0	7.9	4.3	0.0	4.8
Cycle Q Clear(g_c), s	0.1	0.0	0.0	1.0	0.0	7.2	0.0	0.0	7.9	4.3	0.0	4.8
Prop In Lane	0.33		0.33	1.00		1.00	1.00		0.11	1.00		0.01
Lane Grp Cap(c), veh/h	318	0	0	357	0	455	754	0	1071	681	0	1165
V/C Ratio(X)	0.01	0.00	0.00	0.07	0.00	0.46	0.00	0.00	0.34	0.37	0.00	0.24
Avail Cap(c_a), veh/h	570	0	0	631	0	767	1007	0	1071	767	0	1165
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.70	0.00	0.70
Uniform Delay (d), s/veh	26.3	0.0	0.0	26.7	0.0	24.0	7.5	0.0	9.3	5.8	0.0	5.8
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.9	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	0.0	0.0	0.4	0.0	3.0	0.0	0.0	3.2	1.2	0.0	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.3	0.0	0.0	26.7	0.0	24.3	7.5	0.0	10.1	5.9	0.0	6.2
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		3			234			370			527	
Approach Delay, s/veh		26.3			24.5			10.1			6.0	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.3	46.5		17.2	5.1	52.7		17.2				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	6.3	9.9		2.1	2.0	6.8		9.2				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.5				

Intersection Summary			
HCM 6th Ctrl Delay		11.2	
HCM 6th LOS		B	

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	1	1	0	176	228	0
Future Volume (vph)	1	1	0	176	228	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976					
Satd. Flow (prot)	1838	0	0	1977	1909	0
Flt Permitted	0.976					
Satd. Flow (perm)	1838	0	0	1977	1909	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	17	17			14
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	1	1	0	205	265	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	2	0	0	205	265	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	1	1	0	176	228	0
Future Vol, veh/h	1	1	0	176	228	0
Conflicting Peds, #/hr	14	17	17	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	1	0	205	265	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	501	299	282	0	-	0
Stage 1	282	-	-	-	-	-
Stage 2	219	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	700	805	1280	-	-	-
Stage 1	896	-	-	-	-	-
Stage 2	923	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	679	780	1260	-	-	-
Mov Cap-2 Maneuver	679	-	-	-	-	-
Stage 1	883	-	-	-	-	-
Stage 2	909	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1260	-	726	-	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s)	0	-	10	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

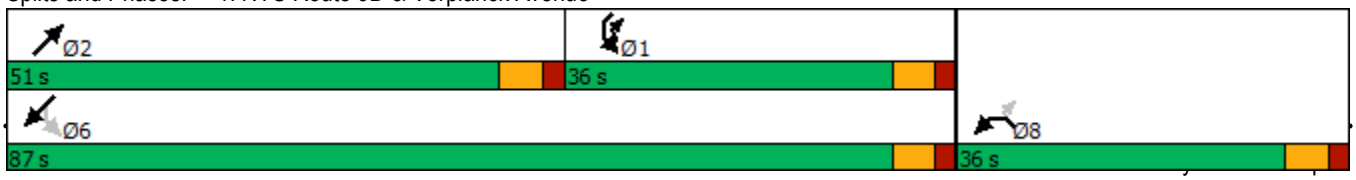


Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	65	293	576	51	291	711
Future Volume (vph)	65	293	576	51	291	711
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		1.00			
Frt		0.850	0.989			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1811	0	1778	1854
Flt Permitted	0.950				0.238	
Satd. Flow (perm)	1715	1544	1811	0	446	1854
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	2			1	1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%
Adj. Flow (vph)	68	308	606	54	306	748
Shared Lane Traffic (%)						
Lane Group Flow (vph)	68	308	660	0	306	748
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.36	0.55	0.75		0.48	0.50
Control Delay	44.1	24.6	27.6		13.6	6.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	44.1	24.6	27.6		13.6	6.1
Queue Length 50th (ft)	36	131	278		36	123
Queue Length 95th (ft)	83	208	#657		100	320
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	637	659	1004		888	1674
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.11	0.47	0.66		0.34	0.45

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 85.5	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue

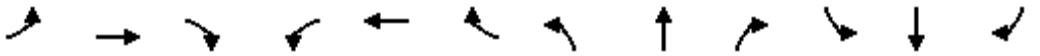




Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	65	293	576	51	291	711	
Future Volume (veh/h)	65	293	576	51	291	711	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1894	
Adj Flow Rate, veh/h	68	308	606	54	306	748	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	3	
Cap, veh/h	228	367	699	62	375	1222	
Arrive On Green	0.14	0.14	0.42	0.42	0.11	0.64	
Sat Flow, veh/h	1641	1460	1644	147	1818	1894	
Grp Volume(v), veh/h	68	308	0	660	306	748	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1791	1818	1894	
Q Serve(g_s), s	2.1	4.9	0.0	18.7	3.7	12.9	
Cycle Q Clear(g_c), s	2.1	4.9	0.0	18.7	3.7	12.9	
Prop In Lane	1.00	1.00		0.08	1.00		
Lane Grp Cap(c), veh/h	228	367	0	761	375	1222	
V/C Ratio(X)	0.30	0.84	0.00	0.87	0.82	0.61	
Avail Cap(c_a), veh/h	886	952	0	1450	1153	2761	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	21.5	19.7	0.0	14.6	22.3	5.8	
Incr Delay (d2), s/veh	0.3	2.0	0.0	3.2	1.7	0.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.8	3.6	0.0	6.9	3.6	3.4	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.7	21.8	0.0	17.7	24.0	6.3	
LnGrp LOS	C	C	A	B	C	A	
Approach Vol, veh/h	376		660			1054	
Approach Delay, s/veh	21.8		17.7			11.4	
Approach LOS	C		B			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.2	29.6				41.8	13.7
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	5.7	20.7				14.9	6.9
Green Ext Time (p_c), s	0.6	2.9				3.6	0.9

Intersection Summary		
HCM 6th Ctrl Delay	15.3	
HCM 6th LOS	B	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	4	38	9	0	9	20	542	6	2	727	54
Future Volume (vph)	76	4	38	9	0	9	20	542	6	2	727	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.956			0.932			0.998			0.991	
Flt Protected		0.969			0.976		0.950					
Satd. Flow (prot)	0	1807	0	0	1661	0	1770	1849	0	0	1909	0
Flt Permitted		0.969			0.976		0.950					
Satd. Flow (perm)	0	1807	0	0	1661	0	1770	1849	0	0	1909	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		8	14		12	8		14	12		6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	4%	13%	2%	2%	2%	6%	2%	2%	4%	11%
Adj. Flow (vph)	80	4	40	9	0	9	21	571	6	2	765	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	124	0	0	18	0	21	577	0	0	824	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.2

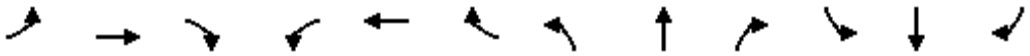
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	76	4	38	9	0	9	20	542	6	2	727	54
Future Vol, veh/h	76	4	38	9	0	9	20	542	6	2	727	54
Conflicting Peds, #/hr	6	0	8	14	0	12	8	0	14	12	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	4	13	2	2	2	6	2	2	4	11
Mvmt Flow	80	4	40	9	0	9	21	571	6	2	765	57

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1439	1439	816	1464	1464	600	830	0	0	591	0	0
Stage 1	806	806	-	630	630	-	-	-	-	-	-	-
Stage 2	633	633	-	834	834	-	-	-	-	-	-	-
Critical Hdwy	6.32	5.72	5.84	7.23	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.32	4.72	-	6.23	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.32	4.72	-	6.23	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.336	3.617	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	152	183	409	100	128	501	802	-	-	985	-	-
Stage 1	449	472	-	452	475	-	-	-	-	-	-	-
Stage 2	538	545	-	347	383	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	143	174	401	84	122	489	796	-	-	973	-	-
Mov Cap-2 Maneuver	143	174	-	84	122	-	-	-	-	-	-	-
Stage 1	434	467	-	434	456	-	-	-	-	-	-	-
Stage 2	508	524	-	304	379	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	59.1	34	0.3	0
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	796	-	-	182	143	973	-	-
HCM Lane V/C Ratio	0.026	-	-	0.682	0.132	0.002	-	-
HCM Control Delay (s)	9.6	-	-	59.1	34	8.7	0	-
HCM Lane LOS	A	-	-	F	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	4.1	0.4	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	5	45	9	10	17	22	449	3	3	520	251
Future Volume (vph)	110	5	45	9	10	17	22	449	3	3	520	251
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.98		0.99		1.00	1.00		0.99	0.99	
Frt			0.850		0.938			0.999			0.951	
Flt Protected		0.954			0.987		0.950			0.950		
Satd. Flow (prot)	0	1711	1494	0	1792	0	1754	1844	0	1743	1693	0
Flt Permitted		0.706			0.911		0.205			0.431		
Satd. Flow (perm)	0	1265	1460	0	1653	0	378	1844	0	786	1693	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		18						35	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	1		2	2		1	7		14	14		7
Confl. Bikes (#/hr)						1			1			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	25%	7%	2%	2%	2%	6%	6%	2%	2%	5%	2%
Adj. Flow (vph)	118	5	48	10	11	18	24	483	3	3	559	270
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	123	48	0	39	0	24	486	0	3	829	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

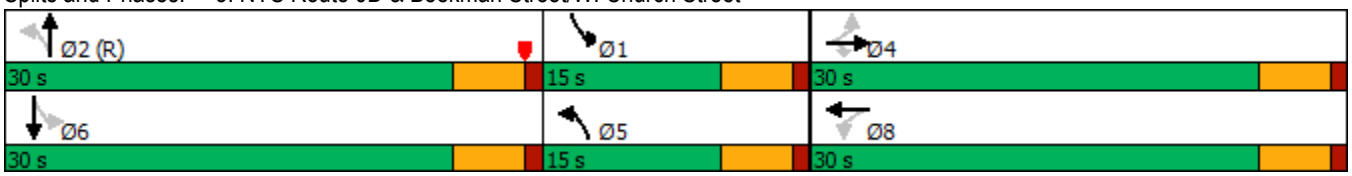


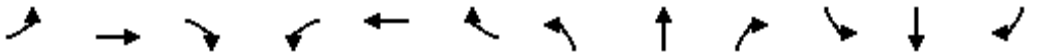
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0		10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				2	2							
v/c Ratio		0.57	0.14		0.13		0.07	0.37		0.00	0.70	
Control Delay		36.9	1.5		15.7		3.9	7.7		6.0	17.2	
Queue Delay		0.0	0.0		0.0		0.0	0.1		0.0	0.0	
Total Delay		36.9	1.5		15.7		3.9	7.8		6.0	17.2	
Queue Length 50th (ft)		54	0		8		1	70		0	168	
Queue Length 95th (ft)		87	4		27		m5	169		4	#646	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		421	554		563		484	1316		743	1179	
Starvation Cap Reductn		0	0		0		0	161		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.29	0.09		0.07		0.05	0.42		0.00	0.70	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street

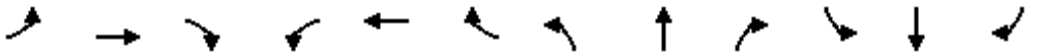




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	110	5	45	9	10	17	22	449	3	3	520	251
Future Volume (veh/h)	110	5	45	9	10	17	22	449	3	3	520	251
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.97	1.00		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1817	1506	1773	2263	2263	2263	2046	2046	2106	1817	1773	1817
Adj Flow Rate, veh/h	118	5	48	10	11	18	24	483	3	3	559	270
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	25	7	2	2	2	6	6	2	2	5	2
Cap, veh/h	237	8	383	75	97	95	507	677	4	571	371	179
Arrive On Green	0.26	0.26	0.26	0.26	0.26	0.26	0.21	0.33	0.33	0.21	0.33	0.33
Sat Flow, veh/h	559	30	1496	56	379	373	1948	2030	13	1731	1112	537
Grp Volume(v), veh/h	123	0	48	39	0	0	24	0	486	3	0	829
Grp Sat Flow(s),veh/h/ln	589	0	1496	808	0	0	1948	0	2043	1731	0	1649
Q Serve(g_s), s	0.0	0.0	1.9	0.2	0.0	0.0	0.0	0.0	15.6	0.0	0.0	25.0
Cycle Q Clear(g_c), s	16.9	0.0	1.9	17.2	0.0	0.0	0.0	0.0	15.6	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.26		0.46	1.00		0.01	1.00		0.33
Lane Grp Cap(c), veh/h	245	0	383	267	0	0	507	0	681	571	0	550
V/C Ratio(X)	0.50	0.00	0.13	0.15	0.00	0.00	0.05	0.00	0.71	0.01	0.00	1.51
Avail Cap(c_a), veh/h	332	0	499	414	0	0	507	0	681	571	0	550
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.91	0.00	0.91	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.0	0.0	21.5	22.1	0.0	0.0	23.3	0.0	21.9	16.6	0.0	25.0
Incr Delay (d2), s/veh	0.6	0.0	0.1	0.1	0.0	0.0	0.0	0.0	5.7	0.0	0.0	238.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.6	0.5	0.0	0.0	0.3	0.0	8.1	0.0	0.0	45.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.6	0.0	21.5	22.2	0.0	0.0	23.4	0.0	27.6	16.6	0.0	263.1
LnGrp LOS	C	A	C	C	A	A	C	A	C	B	A	F
Approach Vol, veh/h		171			39			510			832	
Approach Delay, s/veh		25.9			22.2			27.4			262.3	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.9	30.0		24.1	20.9	30.0		24.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	2.0	17.6		18.9	2.0	27.0		19.2				
Green Ext Time (p_c), s	0.0	0.7		0.2	0.0	0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		153.0	
HCM 6th LOS		F	



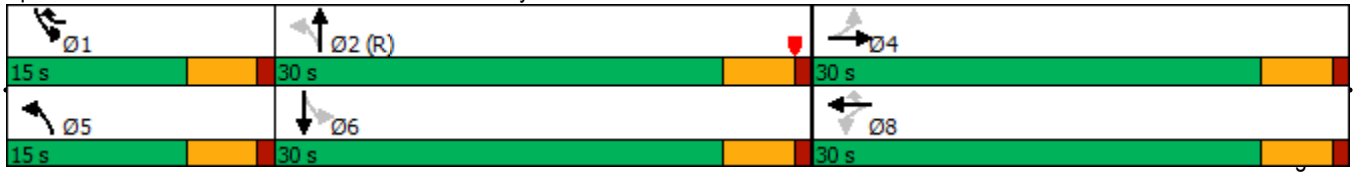
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	5	3	21	7	117	5	354	38	254	324	6
Future Volume (vph)	4	5	3	21	7	117	5	354	38	254	324	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.96		0.99			1.00	
Frt		0.966				0.850		0.985			0.997	
Flt Protected		0.983			0.964		0.950			0.950		
Satd. Flow (prot)	0	1779	0	0	1905	1647	1832	1847	0	1743	1846	0
Flt Permitted		0.882			0.769		0.539			0.358		
Satd. Flow (perm)	0	1596	0	0	1520	1574	1039	1847	0	657	1846	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		5									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			9			15			21			12
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	2%	5%	2%	1%	0%
Adj. Flow (vph)	7	8	5	23	8	129	6	448	48	289	368	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	31	129	6	496	0	289	375	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

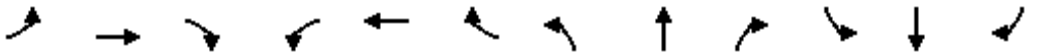
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0	15.0	15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	20.0%	20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0	10.0	10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	15	15		15	15			21				
v/c Ratio		0.10			0.17	0.35	0.01	0.45		0.43	0.25	
Control Delay		21.7			28.0	20.7	6.2	14.9		7.9	4.7	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.2	
Total Delay		21.7			28.0	20.7	6.2	14.9		7.9	4.8	
Queue Length 50th (ft)		7			14	45	1	123		19	24	
Queue Length 95th (ft)		12			29	54	5	267		m96	91	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		535			506	399	863	1101		688	1476	
Starvation Cap Reductn		0			0	0	0	0		0	410	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.04			0.06	0.32	0.01	0.45		0.42	0.35	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 65
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	5	3	21	7	117	5	354	38	254	324	6
Future Volume (veh/h)	4	5	3	21	7	117	5	354	38	254	324	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.95	0.97		0.95	0.99		0.96	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2185	2018	1988	1943	1817	1832	1847
Adj Flow Rate, veh/h	7	8	5	23	8	129	6	448	48	289	368	7
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	2	0	2	5	2	1	0
Cap, veh/h	115	116	55	250	78	410	718	1003	107	622	1176	22
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.00	0.57	0.57	0.09	0.66	0.66
Sat Flow, veh/h	359	837	399	1199	565	1751	1922	1757	188	1731	1792	34
Grp Volume(v), veh/h	20	0	0	31	0	129	6	0	496	289	0	375
Grp Sat Flow(s),veh/h/ln	1594	0	0	1764	0	1751	1922	0	1945	1731	0	1826
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	4.6	0.1	0.0	11.0	4.7	0.0	6.7
Cycle Q Clear(g_c), s	0.7	0.0	0.0	1.0	0.0	4.6	0.1	0.0	11.0	4.7	0.0	6.7
Prop In Lane	0.35		0.25	0.74		1.00	1.00		0.10	1.00		0.02
Lane Grp Cap(c), veh/h	286	0	0	328	0	410	718	0	1111	622	0	1199
V/C Ratio(X)	0.07	0.00	0.00	0.09	0.00	0.31	0.01	0.00	0.45	0.46	0.00	0.31
Avail Cap(c_a), veh/h	579	0	0	665	0	751	966	0	1111	697	0	1199
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.69	0.00	0.69
Uniform Delay (d), s/veh	28.1	0.0	0.0	28.2	0.0	24.1	6.8	0.0	9.3	6.1	0.0	5.6
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	1.3	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.5	0.0	1.8	0.0	0.0	4.4	1.3	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.2	0.0	0.0	28.3	0.0	24.2	6.8	0.0	10.6	6.2	0.0	6.0
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		20			160			502			664	
Approach Delay, s/veh		28.2			25.0			10.5			6.1	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.8	47.8		15.4	5.4	54.2		15.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	6.7	13.0		2.7	2.1	8.7		6.6				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		10.3	
HCM 6th LOS		B	

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	2	2	158	282	0
Future Volume (vph)	2	2	2	158	282	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976			0.999		
Satd. Flow (prot)	1838	0	0	1938	1909	0
Flt Permitted	0.976			0.999		
Satd. Flow (perm)	1838	0	0	1938	1909	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	16	16			14
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%
Adj. Flow (vph)	3	3	3	200	357	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	203	357	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	2	2	158	282	0
Future Vol, veh/h	2	2	2	158	282	0
Conflicting Peds, #/hr	14	16	16	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	4	2	2
Mvmt Flow	3	3	3	200	357	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	593	389	373	0	-	0
Stage 1	373	-	-	-	-	-
Stage 2	220	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	651	735	1185	-	-	-
Stage 1	857	-	-	-	-	-
Stage 2	923	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	631	713	1168	-	-	-
Mov Cap-2 Maneuver	631	-	-	-	-	-
Stage 1	842	-	-	-	-	-
Stage 2	910	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.4	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1168	-	669	-	-
HCM Lane V/C Ratio	0.002	-	0.008	-	-
HCM Control Delay (s)	8.1	0	10.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

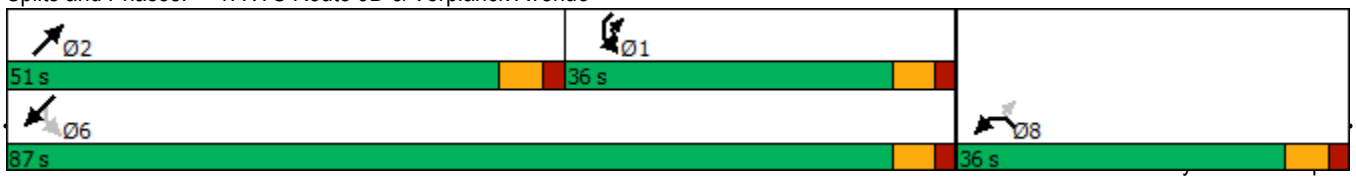


Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	66	345	709	56	233	694
Future Volume (vph)	66	345	709	56	233	694
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		1.00			
Frt		0.850	0.990			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1813	0	1778	1854
Flt Permitted	0.950				0.131	
Satd. Flow (perm)	1720	1544	1813	0	245	1854
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	1			3	3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%
Adj. Flow (vph)	69	363	746	59	245	731
Shared Lane Traffic (%)						
Lane Group Flow (vph)	69	363	805	0	245	731
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	3		3			
v/c Ratio	0.39	0.63	0.90		0.44	0.49
Control Delay	47.4	27.7	39.8		18.5	5.7
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	47.4	27.7	39.8		18.5	5.7
Queue Length 50th (ft)	40	168	428		35	120
Queue Length 95th (ft)	86	251	#909		126	305
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	567	637	894		715	1601
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.12	0.57	0.90		0.34	0.46

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 93.2	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue

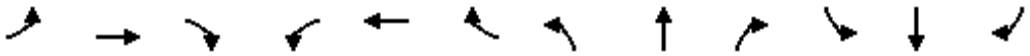




Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	66	345	709	56	233	694	
Future Volume (veh/h)	66	345	709	56	233	694	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1894	
Adj Flow Rate, veh/h	69	363	746	59	245	731	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	3	
Cap, veh/h	300	406	806	64	295	1249	
Arrive On Green	0.18	0.18	0.48	0.48	0.10	0.66	
Sat Flow, veh/h	1641	1460	1662	131	1818	1894	
Grp Volume(v), veh/h	69	363	0	805	245	731	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1793	1818	1894	
Q Serve(g_s), s	2.7	10.9	0.0	31.8	4.8	16.2	
Cycle Q Clear(g_c), s	2.7	10.9	0.0	31.8	4.8	16.2	
Prop In Lane	1.00	1.00		0.07	1.00		
Lane Grp Cap(c), veh/h	300	406	0	870	295	1249	
V/C Ratio(X)	0.23	0.89	0.00	0.93	0.83	0.59	
Avail Cap(c_a), veh/h	649	717	0	1063	841	2022	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	26.5	26.3	0.0	18.3	31.9	7.2	
Incr Delay (d2), s/veh	0.1	3.2	0.0	11.8	2.3	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.0	3.4	0.0	14.5	4.4	5.3	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	26.6	29.6	0.0	30.1	34.2	7.6	
LnGrp LOS	C	C	A	C	C	A	
Approach Vol, veh/h	432		805			976	
Approach Delay, s/veh	29.1		30.1			14.3	
Approach LOS	C		C			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	13.2	42.8				56.0	19.9
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	6.8	33.8				18.2	12.9
Green Ext Time (p_c), s	0.5	3.0				3.5	1.0

Intersection Summary			
HCM 6th Ctrl Delay		22.9	
HCM 6th LOS		C	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	6	19	7	4	5	27	705	6	6	654	81
Future Volume (vph)	53	6	19	7	4	5	27	705	6	6	654	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.967			0.960			0.999			0.985	
Flt Protected		0.967			0.977		0.950					
Satd. Flow (prot)	0	1836	0	0	1693	0	1770	1923	0	0	1927	0
Flt Permitted		0.967			0.977		0.950					
Satd. Flow (perm)	0	1836	0	0	1693	0	1770	1923	0	0	1927	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	4		4	2		2	4		2	2		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	25%	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	58	7	21	8	4	5	29	766	7	7	711	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	17	0	29	773	0	0	806	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4

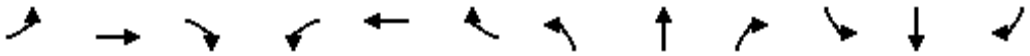
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	53	6	19	7	4	5	27	705	6	6	654	81
Future Vol, veh/h	53	6	19	7	4	5	27	705	6	6	654	81
Conflicting Peds, #/hr	4	0	4	2	0	2	4	0	2	2	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	25	2	2	2	2	3	2
Mvmt Flow	58	7	21	8	4	5	29	766	7	7	711	88

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1609	1606	763	1617	1647	776	803	0	0	775	0	0
Stage 1	773	773	-	830	830	-	-	-	-	-	-	-
Stage 2	836	833	-	787	817	-	-	-	-	-	-	-
Critical Hdwy	6.32	5.72	5.82	7.12	6.52	6.45	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.32	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.32	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.525	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	120	150	440	83	99	363	821	-	-	841	-	-
Stage 1	465	485	-	364	385	-	-	-	-	-	-	-
Stage 2	435	462	-	385	390	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	109	142	437	73	94	361	818	-	-	839	-	-
Mov Cap-2 Maneuver	109	142	-	73	94	-	-	-	-	-	-	-
Stage 1	447	476	-	351	371	-	-	-	-	-	-	-
Stage 2	407	445	-	355	383	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	67.6	46	0.3	0.1
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	818	-	-	136	105	839	-	-
HCM Lane V/C Ratio	0.036	-	-	0.623	0.166	0.008	-	-
HCM Control Delay (s)	9.6	-	-	67.6	46	9.3	0	-
HCM Lane LOS	A	-	-	F	E	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	3.3	0.6	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	292	13	35	2	8	16	47	430	13	5	531	144
Future Volume (vph)	292	13	35	2	8	16	47	430	13	5	531	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.98		1.00	1.00		1.00	0.99	
Frt			0.850		0.918			0.996			0.968	
Flt Protected		0.954			0.996		0.950			0.950		
Satd. Flow (prot)	0	1759	1567	0	1761	0	1690	1892	0	1743	1750	0
Flt Permitted		0.715			0.981		0.161			0.367		
Satd. Flow (perm)	0	1314	1567	0	1735	0	286	1892	0	673	1750	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85		17			2			15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	2					2	6		2	2		6
Confl. Bikes (#/hr)						1			1			1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	10%	3%	2%	2%	3%	2%
Adj. Flow (vph)	317	14	38	2	9	17	51	467	14	5	577	157
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	331	38	0	28	0	51	481	0	5	734	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

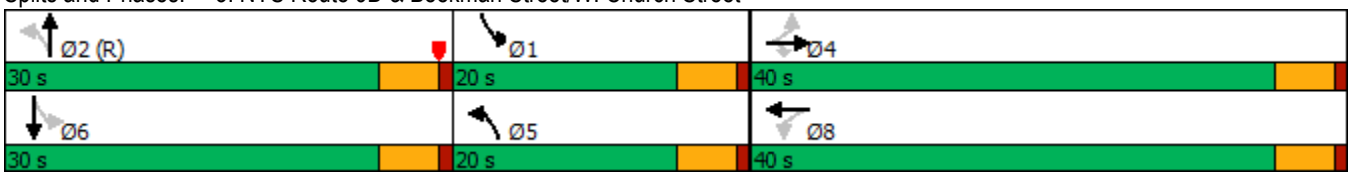


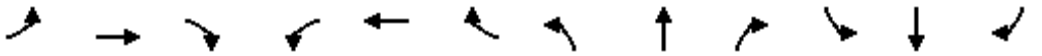
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0		20.0	30.0		20.0	30.0	
Total Split (%)	44.4%	44.4%	44.4%	44.4%	44.4%		22.2%	33.3%		22.2%	33.3%	
Maximum Green (s)	35.0	35.0	35.0	35.0	35.0		15.0	25.0		15.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				2	2							
v/c Ratio		0.83	0.07		0.05		0.22	0.45		0.01	0.79	
Control Delay		46.4	0.5		11.2		11.6	14.2		11.2	29.2	
Queue Delay		0.0	0.0		0.0		0.0	0.4		0.0	0.0	
Total Delay		46.4	0.5		11.2		11.6	14.6		11.2	29.2	
Queue Length 50th (ft)		173	0		4		10	139		1	348	
Queue Length 95th (ft)		242	2		20		m19	203		7	#696	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		514	665		689		437	1066		643	924	
Starvation Cap Reductn		0	0		0		0	200		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.64	0.06		0.04		0.12	0.56		0.01	0.79	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street

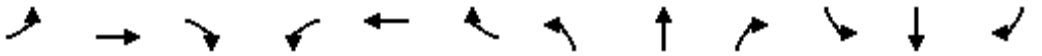




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	292	13	35	2	8	16	47	430	13	5	531	144
Future Volume (veh/h)	292	13	35	2	8	16	47	430	13	5	531	144
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2263	2263	2263	1986	2091	2106	1817	1803	1817
Adj Flow Rate, veh/h	317	14	38	2	9	17	51	467	14	5	577	157
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	10	3	2	2	3	2
Cap, veh/h	178	4	607	43	166	256	395	560	17	422	376	102
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.17	0.28	0.28	0.17	0.28	0.28
Sat Flow, veh/h	255	11	1561	0	426	658	1891	2017	60	1731	1354	368
Grp Volume(v), veh/h	331	0	38	28	0	0	51	0	481	5	0	734
Grp Sat Flow(s),veh/h/ln	267	0	1561	1084	0	0	1891	0	2078	1731	0	1722
Q Serve(g_s), s	0.0	0.0	1.4	0.0	0.0	0.0	0.0	0.0	19.6	0.0	0.0	25.0
Cycle Q Clear(g_c), s	35.0	0.0	1.4	35.0	0.0	0.0	0.0	0.0	19.6	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.07		0.61	1.00		0.03	1.00		0.21
Lane Grp Cap(c), veh/h	182	0	607	465	0	0	395	0	577	422	0	478
V/C Ratio(X)	1.82	0.00	0.06	0.06	0.00	0.00	0.13	0.00	0.83	0.01	0.00	1.53
Avail Cap(c_a), veh/h	182	0	607	465	0	0	395	0	577	422	0	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.88	0.00	0.88	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	0.0	17.2	18.5	0.0	0.0	31.3	0.0	30.5	27.1	0.0	32.5
Incr Delay (d2), s/veh	389.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.9	0.0	0.0	250.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	23.7	0.0	0.5	0.4	0.0	0.0	0.9	0.0	11.4	0.1	0.0	43.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	424.3	0.0	17.2	18.5	0.0	0.0	31.3	0.0	42.4	27.1	0.0	283.4
LnGrp LOS	F	A	B	B	A	A	C	A	D	C	A	F
Approach Vol, veh/h		369			28			532			739	
Approach Delay, s/veh		382.4			18.5			41.3			281.7	
Approach LOS		F			B			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	30.0		40.0	20.0	30.0		40.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	25.0		35.0	15.0	25.0		35.0				
Max Q Clear Time (g_c+I1), s	2.0	21.6		37.0	2.0	27.0		37.0				
Green Ext Time (p_c), s	0.0	0.4		0.0	0.0	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			222.9									
HCM 6th LOS			F									



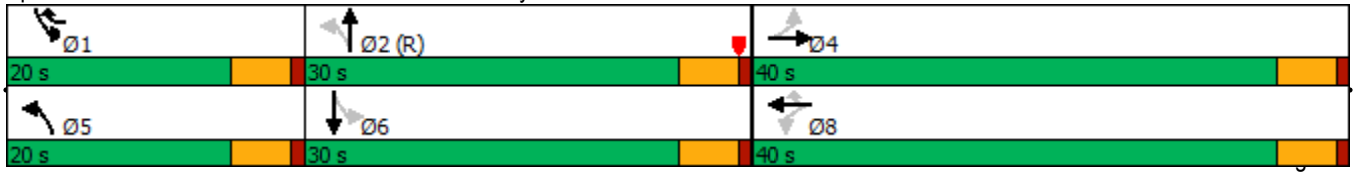
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	8	2	50	2	174	2	315	80	246	332	0
Future Volume (vph)	2	8	2	50	2	174	2	315	80	246	332	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.95		0.99				
Frt		0.979				0.850		0.970				
Flt Protected		0.992			0.954		0.950			0.950		
Satd. Flow (prot)	0	1825	0	0	1885	1647	1832	1800	0	1743	1853	0
Flt Permitted		0.961			0.720		0.538			0.338		
Satd. Flow (perm)	0	1768	0	0	1423	1566	1038	1800	0	620	1853	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		3										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			9			15			21			12
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	2%	5%	2%	1%	0%
Adj. Flow (vph)	3	13	3	55	2	191	3	399	101	280	377	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	0	57	191	3	500	0	280	377	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	40.0	40.0		40.0	40.0	20.0	20.0	30.0		20.0	30.0	
Total Split (%)	44.4%	44.4%		44.4%	44.4%	22.2%	22.2%	33.3%		22.2%	33.3%	
Maximum Green (s)	35.0	35.0		35.0	35.0	15.0	15.0	25.0		15.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	9	9		15	15			21				
v/c Ratio		0.07			0.28	0.41	0.00	0.50		0.43	0.27	
Control Delay		25.3			34.0	22.4	8.0	19.7		11.4	5.6	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.3	
Total Delay		25.3			34.0	22.4	8.0	19.7		11.4	5.9	
Queue Length 50th (ft)		9			31	85	0	150		18	25	
Queue Length 95th (ft)		15			57	92	3	309		m107	m88	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		689			553	510	874	995		679	1402	
Starvation Cap Reductn		0			0	0	0	0		0	534	
Spillback Cap Reductn		0			0	0	0	12		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.03			0.10	0.37	0.00	0.51		0.41	0.43	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 65
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	8	2	50	2	174	2	315	80	246	332	0
Future Volume (veh/h)	2	8	2	50	2	174	2	315	80	246	332	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.95	0.97		0.95	0.99		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2185	2018	1988	1943	1817	1832	1847
Adj Flow Rate, veh/h	3	13	3	55	2	191	3	399	101	280	377	0
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	2	0	2	5	2	1	0
Cap, veh/h	66	211	43	326	11	427	721	903	228	614	1236	0
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.00	0.60	0.60	0.08	0.67	0.00
Sat Flow, veh/h	123	1350	276	1581	69	1763	1922	1517	384	1731	1832	0
Grp Volume(v), veh/h	19	0	0	57	0	191	3	0	500	280	377	0
Grp Sat Flow(s),veh/h/ln	1750	0	0	1650	0	1763	1922	0	1901	1731	1832	0
Q Serve(g_s), s	0.0	0.0	0.0	1.7	0.0	8.3	0.1	0.0	13.0	5.2	7.6	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	2.5	0.0	8.3	0.1	0.0	13.0	5.2	7.6	0.0
Prop In Lane	0.16		0.16	0.96		1.00	1.00		0.20	1.00		0.00
Lane Grp Cap(c), veh/h	320	0	0	337	0	427	721	0	1131	614	1236	0
V/C Ratio(X)	0.06	0.00	0.00	0.17	0.00	0.45	0.00	0.00	0.44	0.46	0.31	0.00
Avail Cap(c_a), veh/h	707	0	0	714	0	837	1037	0	1131	760	1236	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.57	0.57	0.00
Uniform Delay (d), s/veh	32.4	0.0	0.0	33.0	0.0	29.3	7.3	0.0	10.0	6.7	6.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0	1.3	0.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	1.1	0.0	3.5	0.0	0.0	5.3	1.6	2.6	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.4	0.0	0.0	33.1	0.0	29.6	7.3	0.0	11.3	6.8	6.4	0.0
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		19			248			503			657	
Approach Delay, s/veh		32.4			30.4			11.2			6.6	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.4	58.6		19.1	5.2	65.7		19.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	25.0		35.0	15.0	25.0		35.0				
Max Q Clear Time (g_c+I1), s	7.2	15.0		2.8	2.1	9.6		10.3				
Green Ext Time (p_c), s	0.2	0.3		0.0	0.0	0.2		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		12.7	
HCM 6th LOS		B	

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	3	7	0	337	196	3
Future Volume (vph)	3	7	0	337	196	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.904				0.998	
Flt Protected	0.986					
Satd. Flow (prot)	1801	0	0	1977	1869	0
Flt Permitted	0.986					
Satd. Flow (perm)	1801	0	0	1977	1869	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	8	8			14
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	4	10	0	475	276	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	0	0	475	280	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.2

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	3	7	0	337	196	3
Future Vol, veh/h	3	7	0	337	196	3
Conflicting Peds, #/hr	14	8	8	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	4	2
Mvmt Flow	4	10	0	475	276	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	781	300	294	0	-	0
Stage 1	292	-	-	-	-	-
Stage 2	489	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	561	804	1268	-	-	-
Stage 1	891	-	-	-	-	-
Stage 2	809	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	546	788	1252	-	-	-
Mov Cap-2 Maneuver	546	-	-	-	-	-
Stage 1	879	-	-	-	-	-
Stage 2	798	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.3	0	0
HCM LOS	B		

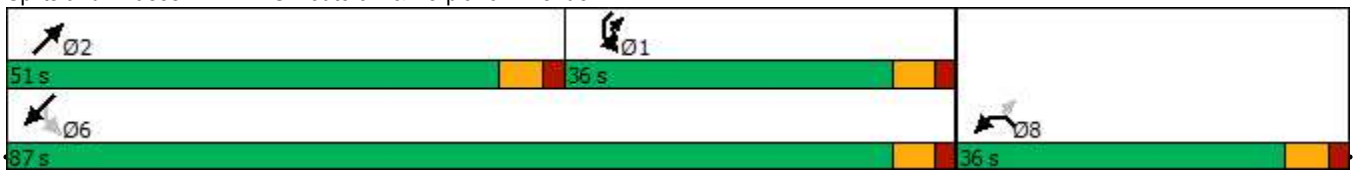
Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1252	-	696	-	-
HCM Lane V/C Ratio	-	-	0.02	-	-
HCM Control Delay (s)	0	-	10.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	50	287	628	41	217	726
Future Volume (vph)	50	287	628	41	217	726
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98		1.00			
Frt		0.850	0.992			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1818	0	1778	1872
Flt Permitted	0.950				0.205	
Satd. Flow (perm)	1688	1544	1818	0	384	1872
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	7			1	1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	312	683	45	236	789
Shared Lane Traffic (%)						
Lane Group Flow (vph)	54	312	728	0	236	789
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.32	0.58	0.78		0.39	0.52
Control Delay	44.1	26.9	28.7		11.6	6.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	44.1	26.9	28.7		11.6	6.1
Queue Length 50th (ft)	29	139	325		25	127
Queue Length 95th (ft)	69	211	#754		77	347
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	589	614	931		818	1667
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.09	0.51	0.78		0.29	0.47

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 89.7	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue



Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	50	287	628	41	217	726	
Future Volume (veh/h)	50	287	628	41	217	726	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1909	
Adj Flow Rate, veh/h	54	312	683	45	236	789	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	283	365	768	51	297	1205	
Arrive On Green	0.17	0.17	0.46	0.46	0.08	0.63	
Sat Flow, veh/h	1641	1460	1686	111	1818	1909	
Grp Volume(v), veh/h	54	312	0	728	236	789	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1797	1818	1909	
Q Serve(g_s), s	1.7	7.7	0.0	22.6	2.4	15.9	
Cycle Q Clear(g_c), s	1.7	7.7	0.0	22.6	2.4	15.9	
Prop In Lane	1.00	1.00		0.06	1.00		
Lane Grp Cap(c), veh/h	283	365	0	819	297	1205	
V/C Ratio(X)	0.19	0.86	0.00	0.89	0.79	0.65	
Avail Cap(c_a), veh/h	806	830	0	1324	1050	2531	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	21.6	21.9	0.0	15.2	26.0	7.1	
Incr Delay (d2), s/veh	0.1	2.3	0.0	4.7	1.8	0.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.6	4.1	0.0	8.8	3.2	4.7	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	21.8	24.1	0.0	19.9	27.9	7.7	
LnGrp LOS	C	C	A	B	C	A	
Approach Vol, veh/h	366		728			1025	
Approach Delay, s/veh	23.8		19.9			12.3	
Approach LOS	C		B			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	10.7	33.8				44.6	16.5
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	4.4	24.6				17.9	9.7
Green Ext Time (p_c), s	0.5	3.2				3.9	0.8

Intersection Summary		
HCM 6th Ctrl Delay		16.9
HCM 6th LOS		B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	2	18	4	6	11	24	607	5	8	690	79
Future Volume (vph)	61	2	18	4	6	11	24	607	5	8	690	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.970			0.926			0.999			0.986	
Flt Protected		0.964			0.991		0.950				0.999	
Satd. Flow (prot)	0	1822	0	0	1766	0	1770	1923	0	0	1943	0
Flt Permitted		0.964			0.991		0.950				0.999	
Satd. Flow (perm)	0	1822	0	0	1766	0	1770	1923	0	0	1943	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		6	2		2	6		2	2		6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	65	2	19	4	6	12	26	646	5	9	734	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	22	0	26	651	0	0	827	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

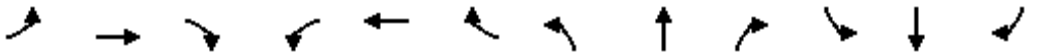
Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	61	2	18	4	6	11	24	607	5	8	690	79
Future Vol, veh/h	61	2	18	4	6	11	24	607	5	8	690	79
Conflicting Peds, #/hr	6	0	6	2	0	2	6	0	2	2	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	65	2	19	4	6	12	26	646	5	9	734	84

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1516	1505	788	1514	1545	657	824	0	0	653	0	0
Stage 1	800	800	-	703	703	-	-	-	-	-	-	-
Stage 2	716	705	-	811	842	-	-	-	-	-	-	-
Critical Hdwy	6.33	5.72	5.82	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.33	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.33	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	136	169	427	98	115	465	806	-	-	934	-	-
Stage 1	450	475	-	428	440	-	-	-	-	-	-	-
Stage 2	492	514	-	373	380	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	120	160	422	88	109	462	802	-	-	932	-	-
Mov Cap-2 Maneuver	120	160	-	88	109	-	-	-	-	-	-	-
Stage 1	433	464	-	413	425	-	-	-	-	-	-	-
Stage 2	455	497	-	346	371	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	61.7	29.5	0.4	0.1
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	802	-	-	144	169	932	-	-
HCM Lane V/C Ratio	0.032	-	-	0.598	0.132	0.009	-	-
HCM Control Delay (s)	9.6	-	-	61.7	29.5	8.9	0	-
HCM Lane LOS	A	-	-	F	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	3.1	0.4	0	-	-

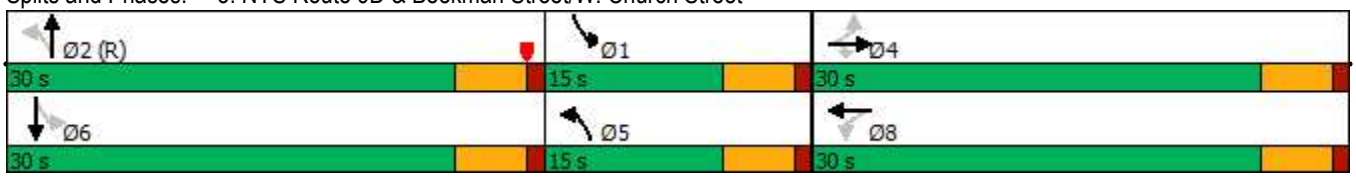


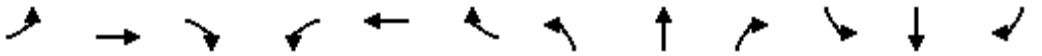
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	6	44	10	4	17	79	470	4	8	512	191
Future Volume (vph)	149	6	44	10	4	17	79	470	4	8	512	191
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98	0.97		0.98		1.00	1.00		1.00	0.99	
Frt			0.850		0.925			0.999			0.959	
Flt Protected		0.954			0.984		0.950			0.950		
Satd. Flow (prot)	0	1759	1567	0	1743	0	1823	1916	0	1743	1746	0
Flt Permitted		0.710			0.892		0.166			0.367		
Satd. Flow (perm)	0	1288	1524	0	1578	0	318	1916	0	671	1746	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		19			1			27	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	11		3	3		11	6		9	9		6
Confl. Bikes (#/hr)			3									
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	167	7	49	11	4	19	89	528	4	9	575	215
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	174	49	0	34	0	89	532	0	9	790	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0		10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				11	11							
v/c Ratio		0.68	0.13		0.10		0.30	0.44		0.02	0.79	
Control Delay		39.9	1.3		13.6		10.9	11.4		6.8	23.9	
Queue Delay		0.0	0.0		0.0		0.0	0.3		0.0	0.0	
Total Delay		39.9	1.3		13.6		10.9	11.6		6.8	23.9	
Queue Length 50th (ft)		76	0		6		16	105		1	266	
Queue Length 95th (ft)		119	4		23		m26	219		7	#616	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		429	576		538		435	1218		610	995	
Starvation Cap Reductn		0	0		0		0	217		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.41	0.09		0.06		0.20	0.53		0.01	0.79	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street

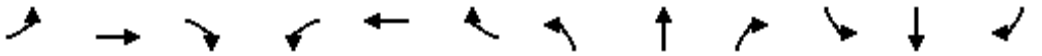




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	149	6	44	10	4	17	79	470	4	8	512	191
Future Volume (veh/h)	149	6	44	10	4	17	79	470	4	8	512	191
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.99		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2263	2263	2263	2106	2106	2106	1817	1817	1817
Adj Flow Rate, veh/h	167	7	49	11	4	19	89	528	4	9	575	215
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	301	11	407	86	57	101	486	696	5	524	419	157
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.19	0.33	0.33	0.19	0.33	0.33
Sat Flow, veh/h	759	39	1497	82	210	371	2006	2087	16	1731	1256	470
Grp Volume(v), veh/h	174	0	49	34	0	0	89	0	532	9	0	790
Grp Sat Flow(s),veh/h/ln	799	0	1497	663	0	0	2006	0	2103	1731	0	1725
Q Serve(g_s), s	0.0	0.0	1.8	0.3	0.0	0.0	0.0	0.0	16.9	0.0	0.0	25.0
Cycle Q Clear(g_c), s	17.5	0.0	1.8	17.8	0.0	0.0	0.0	0.0	16.9	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.32		0.56	1.00		0.01	1.00		0.27
Lane Grp Cap(c), veh/h	311	0	407	244	0	0	486	0	701	524	0	575
V/C Ratio(X)	0.56	0.00	0.12	0.14	0.00	0.00	0.18	0.00	0.76	0.02	0.00	1.37
Avail Cap(c_a), veh/h	395	0	499	355	0	0	486	0	701	524	0	575
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.87	0.00	0.87	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.2	0.0	20.5	21.4	0.0	0.0	24.3	0.0	22.3	18.5	0.0	25.0
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.1	0.0	0.0	0.1	0.0	6.6	0.0	0.0	179.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	0.0	0.6	0.4	0.0	0.0	1.2	0.0	9.1	0.1	0.0	38.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	26.8	0.0	20.6	21.5	0.0	0.0	24.4	0.0	28.9	18.5	0.0	204.0
LnGrp LOS	C	A	C	C	A	A	C	A	C	B	A	F
Approach Vol, veh/h		223			34			621			799	
Approach Delay, s/veh		25.4			21.5			28.3			201.9	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.6	30.0		25.4	19.6	30.0		25.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	2.0	18.9		19.5	2.0	27.0		19.8				
Green Ext Time (p_c), s	0.0	0.7		0.2	0.0	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			110.5									
HCM 6th LOS			F									



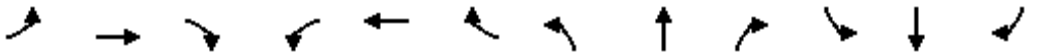
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	2	2	38	0	209	2	343	52	265	306	3
Future Volume (vph)	2	2	2	38	0	209	2	343	52	265	306	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.97		0.99			1.00	
Frt		0.955				0.850		0.980			0.999	
Flt Protected		0.984			0.950		0.950			0.950		
Satd. Flow (prot)	0	1751	0	0	1877	1663	1832	1822	0	1760	1851	0
Flt Permitted		0.898			0.752		0.558			0.385		
Satd. Flow (perm)	0	1598	0	0	1486	1614	1076	1822	0	713	1851	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		3									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			14			6			48			11
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	2%	5%	1%	1%	0%
Adj. Flow (vph)	3	3	3	43	0	235	2	390	59	288	333	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	9	0	0	43	235	2	449	0	288	336	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0	15.0	15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	20.0%	20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0	10.0	10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	14	14		6	6			48				
v/c Ratio		0.04			0.23	0.59	0.00	0.42		0.41	0.23	
Control Delay		20.5			28.9	27.3	6.5	14.0		8.0	5.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		20.5			28.9	27.3	6.5	14.0		8.0	5.0	
Queue Length 50th (ft)		3			19	91	0	103		18	21	
Queue Length 95th (ft)		9			36	94	3	278		m78	m74	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		534			495	408	874	1067		719	1472	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	6		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.02			0.09	0.58	0.00	0.42		0.40	0.23	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	2	38	0	209	2	343	52	265	306	3
Future Volume (veh/h)	2	2	2	38	0	209	2	343	52	265	306	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.96		0.98	0.99		0.95	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2200	2018	1988	1943	1832	1832	1847
Adj Flow Rate, veh/h	3	3	3	43	0	235	2	390	59	288	333	3
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	1	0	2	5	1	1	0
Cap, veh/h	124	118	89	375	0	496	694	889	135	618	1134	10
Arrive On Green	0.17	0.17	0.17	0.17	0.00	0.17	0.00	0.53	0.53	0.10	0.63	0.63
Sat Flow, veh/h	348	684	516	1614	0	1832	1922	1675	253	1745	1813	16
Grp Volume(v), veh/h	9	0	0	43	0	235	2	0	449	288	0	336
Grp Sat Flow(s),veh/h/ln	1548	0	0	1614	0	1832	1922	0	1928	1745	0	1829
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	8.1	0.0	0.0	10.7	5.1	0.0	6.3
Cycle Q Clear(g_c), s	0.3	0.0	0.0	1.6	0.0	8.1	0.0	0.0	10.7	5.1	0.0	6.3
Prop In Lane	0.33		0.33	1.00		1.00	1.00		0.13	1.00		0.01
Lane Grp Cap(c), veh/h	332	0	0	375	0	496	694	0	1024	618	0	1144
V/C Ratio(X)	0.03	0.00	0.00	0.11	0.00	0.47	0.00	0.00	0.44	0.47	0.00	0.29
Avail Cap(c_a), veh/h	567	0	0	632	0	790	947	0	1024	683	0	1144
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.57	0.00	0.57
Uniform Delay (d), s/veh	25.8	0.0	0.0	26.3	0.0	23.0	8.2	0.0	10.8	7.0	0.0	6.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	1.4	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.6	0.0	3.4	0.0	0.0	4.4	1.5	0.0	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.8	0.0	0.0	26.3	0.0	23.3	8.2	0.0	12.1	7.1	0.0	6.8
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		9			278			451			624	
Approach Delay, s/veh		25.8			23.7			12.1			6.9	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	44.8		18.0	5.1	51.9		18.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	7.1	12.7		2.3	2.0	8.3		10.1				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		12.2	
HCM 6th LOS		B	



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	2	0	200	256	0
Future Volume (vph)	2	2	0	200	256	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976					
Satd. Flow (prot)	1838	0	0	1977	1909	0
Flt Permitted	0.976					
Satd. Flow (perm)	1838	0	0	1977	1909	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	17	17			14
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	2	2	0	233	298	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	233	298	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	2	0	200	256	0
Future Vol, veh/h	2	2	0	200	256	0
Conflicting Peds, #/hr	14	17	17	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	2	0	233	298	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	562	332	315	0	-	0
Stage 1	315	-	-	-	-	-
Stage 2	247	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	667	778	1245	-	-	-
Stage 1	881	-	-	-	-	-
Stage 2	911	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	647	753	1226	-	-	-
Mov Cap-2 Maneuver	647	-	-	-	-	-
Stage 1	868	-	-	-	-	-
Stage 2	897	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1226	-	696	-	-
HCM Lane V/C Ratio	-	-	0.007	-	-
HCM Control Delay (s)	0	-	10.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

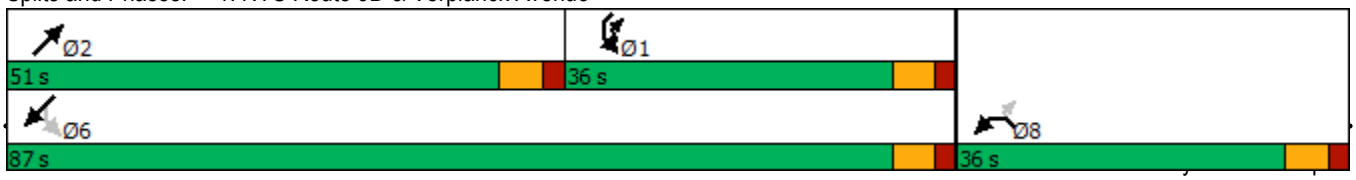


Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	68	293	595	54	291	722
Future Volume (vph)	68	293	595	54	291	722
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		1.00			
Frt		0.850	0.989			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1811	0	1778	1854
Flt Permitted	0.950				0.232	
Satd. Flow (perm)	1715	1544	1811	0	434	1854
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	2			1	1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%
Adj. Flow (vph)	72	308	626	57	306	760
Shared Lane Traffic (%)						
Lane Group Flow (vph)	72	308	683	0	306	760
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.39	0.56	0.75		0.49	0.51
Control Delay	45.7	26.0	27.5		14.1	6.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	45.7	26.0	27.5		14.1	6.1
Queue Length 50th (ft)	40	136	299		37	129
Queue Length 95th (ft)	88	208	#692		100	328
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	595	624	937		847	1640
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.12	0.49	0.73		0.36	0.46

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 89.5	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue





Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	68	293	595	54	291	722	
Future Volume (veh/h)	68	293	595	54	291	722	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1894	
Adj Flow Rate, veh/h	72	308	626	57	306	760	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	3	
Cap, veh/h	224	365	715	65	373	1239	
Arrive On Green	0.14	0.14	0.44	0.44	0.11	0.65	
Sat Flow, veh/h	1641	1460	1641	149	1818	1894	
Grp Volume(v), veh/h	72	308	0	683	306	760	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1790	1818	1894	
Q Serve(g_s), s	2.3	5.0	0.0	20.0	4.0	13.3	
Cycle Q Clear(g_c), s	2.3	5.0	0.0	20.0	4.0	13.3	
Prop In Lane	1.00	1.00		0.08	1.00		
Lane Grp Cap(c), veh/h	224	365	0	781	373	1239	
V/C Ratio(X)	0.32	0.84	0.00	0.88	0.82	0.61	
Avail Cap(c_a), veh/h	859	930	0	1405	1118	2676	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	22.4	20.4	0.0	14.7	23.0	5.7	
Incr Delay (d2), s/veh	0.3	2.1	0.0	3.3	1.7	0.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.8	3.7	0.0	7.4	3.8	3.5	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.7	22.5	0.0	18.0	24.7	6.2	
LnGrp LOS	C	C	A	B	C	A	
Approach Vol, veh/h	380		683			1066	
Approach Delay, s/veh	22.5		18.0			11.5	
Approach LOS	C		B			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.5	31.0				43.5	13.8
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	6.0	22.0				15.3	7.0
Green Ext Time (p_c), s	0.6	3.0				3.7	0.9

Intersection Summary			
HCM 6th Ctrl Delay		15.6	
HCM 6th LOS		B	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	4	38	9	0	9	20	555	6	2	730	65
Future Volume (vph)	85	4	38	9	0	9	20	555	6	2	730	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.959			0.932			0.998			0.989	
Flt Protected		0.968			0.976		0.950					
Satd. Flow (prot)	0	1812	0	0	1661	0	1770	1849	0	0	1903	0
Flt Permitted		0.968			0.976		0.950					
Satd. Flow (perm)	0	1812	0	0	1661	0	1770	1849	0	0	1903	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		8	14		12	8		14	12		6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	4%	13%	2%	2%	2%	6%	2%	2%	4%	11%
Adj. Flow (vph)	89	4	40	9	0	9	21	584	6	2	768	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	18	0	21	590	0	0	838	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	6.6

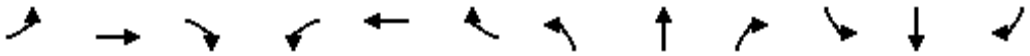
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	85	4	38	9	0	9	20	555	6	2	730	65
Future Vol, veh/h	85	4	38	9	0	9	20	555	6	2	730	65
Conflicting Peds, #/hr	6	0	8	14	0	12	8	0	14	12	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	4	13	2	2	2	6	2	2	4	11
Mvmt Flow	89	4	40	9	0	9	21	584	6	2	768	68

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1460	1460	824	1485	1491	613	844	0	0	604	0	0
Stage 1	814	814	-	643	643	-	-	-	-	-	-	-
Stage 2	646	646	-	842	848	-	-	-	-	-	-	-
Critical Hdwy	6.32	5.72	5.84	7.23	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.32	4.72	-	6.23	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.32	4.72	-	6.23	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.336	3.617	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	148	179	405	97	124	492	792	-	-	974	-	-
Stage 1	446	469	-	444	468	-	-	-	-	-	-	-
Stage 2	531	539	-	344	378	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	139	170	397	81	118	481	786	-	-	962	-	-
Mov Cap-2 Maneuver	139	170	-	81	118	-	-	-	-	-	-	-
Stage 1	431	464	-	427	449	-	-	-	-	-	-	-
Stage 2	501	517	-	301	374	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	72.9	34.9	0.3	0
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	786	-	-	174	139	962	-	-
HCM Lane V/C Ratio	0.027	-	-	0.768	0.136	0.002	-	-
HCM Control Delay (s)	9.7	-	-	72.9	34.9	8.8	0	-
HCM Lane LOS	A	-	-	F	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	5	0.5	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	5	63	9	10	17	36	449	3	3	520	254
Future Volume (vph)	123	5	63	9	10	17	36	449	3	3	520	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.98		0.99		1.00	1.00		0.99	0.99	
Frt			0.850		0.938			0.999			0.951	
Flt Protected		0.954			0.987		0.950			0.950		
Satd. Flow (prot)	0	1713	1494	0	1792	0	1754	1844	0	1743	1693	0
Flt Permitted		0.705			0.910		0.187			0.427		
Satd. Flow (perm)	0	1264	1460	0	1651	0	345	1844	0	779	1693	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		18						35	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	1		2	2		1	7		14	14		7
Confl. Bikes (#/hr)						1			1			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	25%	7%	2%	2%	2%	6%	6%	2%	2%	5%	2%
Adj. Flow (vph)	132	5	68	10	11	18	39	483	3	3	559	273
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	137	68	0	39	0	39	486	0	3	832	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

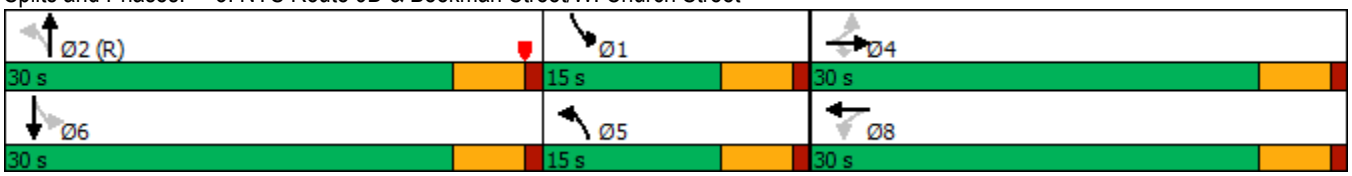


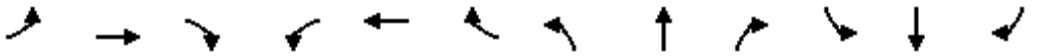
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0		10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				2	2							
v/c Ratio		0.60	0.20		0.13		0.12	0.37		0.01	0.74	
Control Delay		37.8	3.3		15.4		4.7	7.8		6.3	19.5	
Queue Delay		0.0	0.0		0.0		0.0	0.1		0.0	0.0	
Total Delay		37.8	3.3		15.4		4.7	7.9		6.3	19.5	
Queue Length 50th (ft)		60	0		8		4	54		0	275	
Queue Length 95th (ft)		96	15		27		m8	169		4	#650	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		421	554		562		456	1302		715	1128	
Starvation Cap Reductn		0	0		0		0	151		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.33	0.12		0.07		0.09	0.42		0.00	0.74	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	5	63	9	10	17	36	449	3	3	520	254
Future Volume (veh/h)	123	5	63	9	10	17	36	449	3	3	520	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.96	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1817	1506	1773	2263	2263	2263	2046	2046	2106	1817	1773	1817
Adj Flow Rate, veh/h	132	5	68	10	11	18	39	483	3	3	559	273
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	25	7	2	2	2	6	6	2	2	5	2
Cap, veh/h	250	7	453	75	99	97	415	677	4	490	369	180
Arrive On Green	0.30	0.30	0.30	0.30	0.30	0.30	0.16	0.33	0.33	0.16	0.33	0.33
Sat Flow, veh/h	516	25	1497	48	326	321	1948	2030	13	1731	1107	541
Grp Volume(v), veh/h	137	0	68	39	0	0	39	0	486	3	0	832
Grp Sat Flow(s),veh/h/ln	540	0	1497	695	0	0	1948	0	2043	1731	0	1648
Q Serve(g_s), s	0.0	0.0	2.5	0.3	0.0	0.0	0.0	0.0	15.6	0.0	0.0	25.0
Cycle Q Clear(g_c), s	20.5	0.0	2.5	20.8	0.0	0.0	0.0	0.0	15.6	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.26		0.46	1.00		0.01	1.00		0.33
Lane Grp Cap(c), veh/h	258	0	453	271	0	0	415	0	681	490	0	549
V/C Ratio(X)	0.53	0.00	0.15	0.14	0.00	0.00	0.09	0.00	0.71	0.01	0.00	1.51
Avail Cap(c_a), veh/h	292	0	499	328	0	0	415	0	681	490	0	549
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.90	0.00	0.90	1.00	0.00	1.00
Uniform Delay (d), s/veh	25.3	0.0	19.1	20.1	0.0	0.0	26.2	0.0	21.9	19.0	0.0	25.0
Incr Delay (d2), s/veh	0.6	0.0	0.1	0.1	0.0	0.0	0.0	0.0	5.7	0.0	0.0	240.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	0.0	0.8	0.5	0.0	0.0	0.6	0.0	8.1	0.0	0.0	45.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.9	0.0	19.2	20.2	0.0	0.0	26.2	0.0	27.5	19.0	0.0	265.9
LnGrp LOS	C	A	B	C	A	A	C	A	C	B	A	F
Approach Vol, veh/h		205			39			525			835	
Approach Delay, s/veh		23.7			20.2			27.5			265.0	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	17.3	30.0		27.7	17.3	30.0		27.7				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	2.0	17.6		22.5	2.0	27.0		22.8				
Green Ext Time (p_c), s	0.0	0.7		0.1	0.0	0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		150.5	
HCM 6th LOS		F	

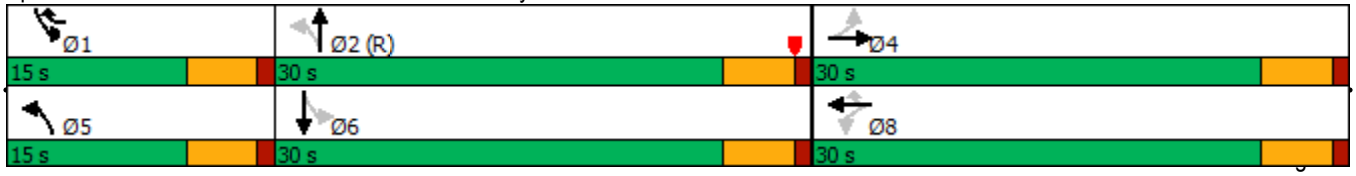
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	5	3	21	7	122	5	362	38	260	336	6
Future Volume (vph)	4	5	3	21	7	122	5	362	38	260	336	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.96		0.99			1.00	
Frt		0.966				0.850		0.986			0.997	
Flt Protected		0.983			0.964		0.950			0.950		
Satd. Flow (prot)	0	1779	0	0	1905	1647	1832	1849	0	1743	1846	0
Flt Permitted		0.882			0.769		0.532			0.346		
Satd. Flow (perm)	0	1596	0	0	1520	1574	1026	1849	0	635	1846	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		5									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			9			15			21			12
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	2%	5%	2%	1%	0%
Adj. Flow (vph)	7	8	5	23	8	134	6	458	48	295	382	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	31	134	6	506	0	295	389	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	40		20	40	40	40	40		40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

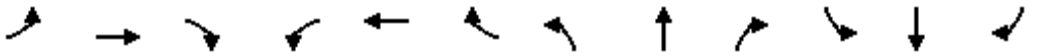
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0	15.0	15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	20.0%	20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0	10.0	10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	15	15		15	15			21				
v/c Ratio		0.10			0.17	0.35	0.01	0.47		0.44	0.26	
Control Delay		21.7			28.0	20.3	6.4	15.4		8.1	4.8	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.2	
Total Delay		21.7			28.0	20.3	6.4	15.4		8.1	5.0	
Queue Length 50th (ft)		7			14	46	1	132		19	25	
Queue Length 95th (ft)		12			29	56	5	273		m95	m96	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		535			506	407	846	1085		678	1476	
Starvation Cap Reductn		0			0	0	0	0		0	413	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.04			0.06	0.33	0.01	0.47		0.44	0.37	

Intersection Summary

Area Type: Other
Cycle Length: 75
Actuated Cycle Length: 75
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 70
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	5	3	21	7	122	5	362	38	260	336	6
Future Volume (veh/h)	4	5	3	21	7	122	5	362	38	260	336	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.95	0.97		0.95	0.99		0.96	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2185	2018	1988	1943	1817	1832	1847
Adj Flow Rate, veh/h	7	8	5	23	8	134	6	458	48	295	382	7
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	2	0	2	5	2	1	0
Cap, veh/h	115	117	56	253	79	417	703	999	105	614	1174	22
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.00	0.57	0.57	0.09	0.65	0.65
Sat Flow, veh/h	360	834	398	1200	563	1753	1922	1761	185	1731	1793	33
Grp Volume(v), veh/h	20	0	0	31	0	134	6	0	506	295	0	389
Grp Sat Flow(s),veh/h/ln	1592	0	0	1764	0	1753	1922	0	1946	1731	0	1826
Q Serve(g_s), s	0.0	0.0	0.0	0.2	0.0	4.8	0.1	0.0	11.4	4.8	0.0	7.0
Cycle Q Clear(g_c), s	0.7	0.0	0.0	1.0	0.0	4.8	0.1	0.0	11.4	4.8	0.0	7.0
Prop In Lane	0.35		0.25	0.74		1.00	1.00		0.09	1.00		0.02
Lane Grp Cap(c), veh/h	289	0	0	332	0	417	703	0	1103	614	0	1195
V/C Ratio(X)	0.07	0.00	0.00	0.09	0.00	0.32	0.01	0.00	0.46	0.48	0.00	0.33
Avail Cap(c_a), veh/h	578	0	0	665	0	755	951	0	1103	685	0	1195
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.65	0.00	0.65
Uniform Delay (d), s/veh	28.0	0.0	0.0	28.1	0.0	23.9	6.9	0.0	9.5	6.3	0.0	5.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	1.4	0.1	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	0.5	0.0	1.9	0.0	0.0	4.6	1.3	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	28.0	0.0	0.0	28.1	0.0	24.1	6.9	0.0	10.9	6.4	0.0	6.2
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		20			165			512			684	
Approach Delay, s/veh		28.0			24.8			10.8			6.3	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.9	47.5		15.6	5.4	54.1		15.6				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	6.8	13.4		2.7	2.1	9.0		6.8				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.3		0.3				

Intersection Summary			
HCM 6th Ctrl Delay		10.5	
HCM 6th LOS		B	



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	2	2	163	289	0
Future Volume (vph)	2	2	2	163	289	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976			0.999		
Satd. Flow (prot)	1838	0	0	1938	1909	0
Flt Permitted	0.976			0.999		
Satd. Flow (perm)	1838	0	0	1938	1909	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	16	16			14
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%
Adj. Flow (vph)	3	3	3	206	366	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	209	366	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	2	2	163	289	0
Future Vol, veh/h	2	2	2	163	289	0
Conflicting Peds, #/hr	14	16	16	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	4	2	2
Mvmt Flow	3	3	3	206	366	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	608	398	382	0	-	0
Stage 1	382	-	-	-	-	-
Stage 2	226	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	643	728	1176	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	920	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	623	706	1159	-	-	-
Mov Cap-2 Maneuver	623	-	-	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	907	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.5	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1159	-	662	-	-
HCM Lane V/C Ratio	0.002	-	0.008	-	-
HCM Control Delay (s)	8.1	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	31	7	5	159	282	17
Future Volume (vph)	31	7	5	159	282	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	16	11	12
Grade (%)	0%			2%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.975				0.992	
Flt Protected	0.961			0.999		
Satd. Flow (prot)	1920	0	0	2049	1786	0
Flt Permitted	0.961			0.999		
Satd. Flow (perm)	1920	0	0	2049	1786	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			216	408	
Travel Time (s)	4.5			4.9	9.3	
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%
Adj. Flow (vph)	39	9	6	201	357	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	48	0	0	207	379	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.86	1.04	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	31	7	5	159	282	17
Future Vol, veh/h	31	7	5	159	282	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	4	2	2
Mvmt Flow	39	9	6	201	357	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	581	368	379	0	-	0
Stage 1	368	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	476	677	1179	-	-	-
Stage 1	700	-	-	-	-	-
Stage 2	823	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	473	677	1179	-	-	-
Mov Cap-2 Maneuver	473	-	-	-	-	-
Stage 1	696	-	-	-	-	-
Stage 2	823	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	12.9	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1179	-	501	-	-
HCM Lane V/C Ratio	0.005	-	0.096	-	-
HCM Control Delay (s)	8.1	0	12.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	116	0	11	74	0	9
Future Volume (vph)	116	0	11	74	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	13	9	12
Grade (%)	-5%			3%	3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.994		
Satd. Flow (prot)	1973	0	0	1885	1428	0
Flt Permitted				0.994		
Satd. Flow (perm)	1973	0	0	1885	1428	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	341			103	156	
Travel Time (s)	7.8			2.3	3.5	
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Adj. Flow (vph)	147	0	14	94	0	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	147	0	0	108	11	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	9	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.93	0.97	1.02	0.98	1.17	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	116	0	11	74	0	9
Future Vol, veh/h	116	0	11	74	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	3	3	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	147	0	14	94	0	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	147	0	269	147
Stage 1	-	-	-	-	147	-
Stage 2	-	-	-	-	122	-
Critical Hdwy	-	-	4.12	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1435	-	689	889
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	885	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1435	-	682	889
Mov Cap-2 Maneuver	-	-	-	-	682	-
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	876	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	9.1
HCM LOS			A

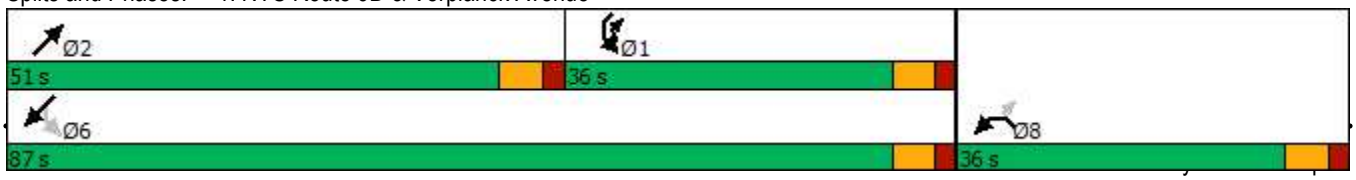
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	889	-	-	1435	-
HCM Lane V/C Ratio	0.013	-	-	0.01	-
HCM Control Delay (s)	9.1	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	71	345	731	61	233	714
Future Volume (vph)	71	345	731	61	233	714
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		1.00			
Frt		0.850	0.990			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1813	0	1778	1854
Flt Permitted	0.950				0.109	
Satd. Flow (perm)	1720	1544	1813	0	204	1854
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	1			3	3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%
Adj. Flow (vph)	75	363	769	64	245	752
Shared Lane Traffic (%)						
Lane Group Flow (vph)	75	363	833	0	245	752
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	3		3			
v/c Ratio	0.41	0.62	0.93		0.46	0.50
Control Delay	48.0	27.6	44.4		21.2	6.0
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	48.0	27.6	44.4		21.2	6.0
Queue Length 50th (ft)	43	168	458		49	129
Queue Length 95th (ft)	92	251	#954		144	320
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	565	639	892		692	1597
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.13	0.57	0.93		0.35	0.47

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 93.4	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue





Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	71	345	731	61	233	714	
Future Volume (veh/h)	71	345	731	61	233	714	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1894	
Adj Flow Rate, veh/h	75	363	769	64	245	752	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	3	
Cap, veh/h	292	404	821	68	293	1271	
Arrive On Green	0.18	0.18	0.50	0.50	0.10	0.67	
Sat Flow, veh/h	1641	1460	1654	138	1818	1894	
Grp Volume(v), veh/h	75	363	0	833	245	752	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1792	1818	1894	
Q Serve(g_s), s	3.1	11.1	0.0	34.7	5.4	17.2	
Cycle Q Clear(g_c), s	3.1	11.1	0.0	34.7	5.4	17.2	
Prop In Lane	1.00	1.00		0.08	1.00		
Lane Grp Cap(c), veh/h	292	404	0	889	293	1271	
V/C Ratio(X)	0.26	0.90	0.00	0.94	0.84	0.59	
Avail Cap(c_a), veh/h	621	697	0	1018	802	1936	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	28.1	27.6	0.0	18.8	33.2	7.1	
Incr Delay (d2), s/veh	0.2	4.2	0.0	14.3	2.4	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.2	3.6	0.0	16.3	4.6	5.6	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	28.2	31.8	0.0	33.1	35.7	7.6	
LnGrp LOS	C	C	A	C	D	A	
Approach Vol, veh/h	438		833			997	
Approach Delay, s/veh	31.2		33.1			14.5	
Approach LOS	C		C			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	13.8	45.3				59.2	20.1
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	7.4	36.7				19.2	13.1
Green Ext Time (p_c), s	0.5	2.6				3.7	1.0

Intersection Summary		
HCM 6th Ctrl Delay	24.6	
HCM 6th LOS	C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	6	19	7	4	5	27	721	6	6	660	100
Future Volume (vph)	63	6	19	7	4	5	27	721	6	6	660	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.970			0.960			0.999			0.982	
Flt Protected		0.966			0.977		0.950					
Satd. Flow (prot)	0	1840	0	0	1693	0	1770	1923	0	0	1921	0
Flt Permitted		0.966			0.977		0.950					
Satd. Flow (perm)	0	1840	0	0	1693	0	1770	1923	0	0	1921	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	4		4	2		2	4		2	2		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	25%	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	68	7	21	8	4	5	29	784	7	7	717	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	96	0	0	17	0	29	791	0	0	833	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.6

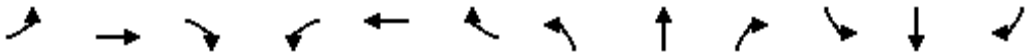
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	63	6	19	7	4	5	27	721	6	6	660	100
Future Vol, veh/h	63	6	19	7	4	5	27	721	6	6	660	100
Conflicting Peds, #/hr	4	0	4	2	0	2	4	0	2	2	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	25	2	2	2	2	3	2
Mvmt Flow	68	7	21	8	4	5	29	784	7	7	717	109

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1644	1641	780	1652	1692	794	830	0	0	793	0	0
Stage 1	790	790	-	848	848	-	-	-	-	-	-	-
Stage 2	854	851	-	804	844	-	-	-	-	-	-	-
Critical Hdwy	6.32	5.72	5.82	7.12	6.52	6.45	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.32	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.32	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.525	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	115	144	431	79	93	354	802	-	-	828	-	-
Stage 1	457	479	-	356	378	-	-	-	-	-	-	-
Stage 2	427	455	-	377	379	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	104	136	428	69	88	352	799	-	-	827	-	-
Mov Cap-2 Maneuver	104	136	-	69	88	-	-	-	-	-	-	-
Stage 1	439	469	-	342	364	-	-	-	-	-	-	-
Stage 2	399	438	-	347	371	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	90.5	49	0.3	0.1
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	799	-	-	127	99	827	-	-
HCM Lane V/C Ratio	0.037	-	-	0.753	0.176	0.008	-	-
HCM Control Delay (s)	9.7	-	-	90.5	49	9.4	0	-
HCM Lane LOS	A	-	-	F	E	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	4.3	0.6	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	308	13	62	2	8	16	73	430	13	5	531	150
Future Volume (vph)	308	13	62	2	8	16	73	430	13	5	531	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.98		1.00	1.00		1.00	0.99	
Frt			0.850		0.918			0.996			0.967	
Flt Protected		0.954			0.996		0.950			0.950		
Satd. Flow (prot)	0	1759	1567	0	1761	0	1690	1892	0	1743	1748	0
Flt Permitted		0.714			0.980		0.124			0.349		
Satd. Flow (perm)	0	1312	1567	0	1733	0	220	1892	0	640	1748	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85		17			2			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	2					2	6		2	2		6
Confl. Bikes (#/hr)						1			1			1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	10%	3%	2%	2%	3%	2%
Adj. Flow (vph)	335	14	67	2	9	17	79	467	14	5	577	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	349	67	0	28	0	79	481	0	5	740	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

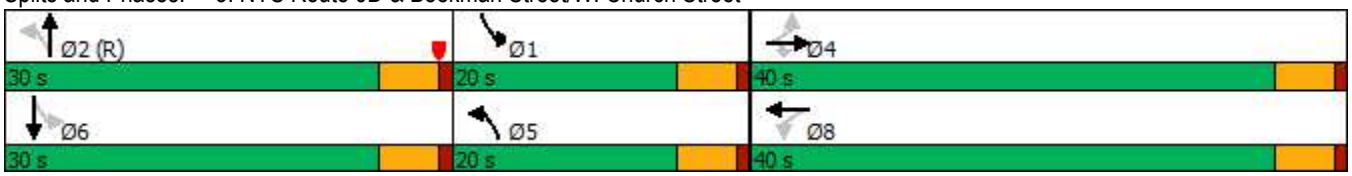


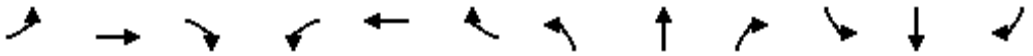
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0		20.0	30.0		20.0	30.0	
Total Split (%)	44.4%	44.4%	44.4%	44.4%	44.4%		22.2%	33.3%		22.2%	33.3%	
Maximum Green (s)	35.0	35.0	35.0	35.0	35.0		15.0	25.0		15.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				2	2							
v/c Ratio		0.85	0.12		0.05		0.39	0.47		0.01	0.87	
Control Delay		46.8	3.3		10.7		20.7	16.0		11.8	36.6	
Queue Delay		0.0	0.0		0.0		0.0	0.4		0.0	0.0	
Total Delay		46.8	3.3		10.7		20.7	16.4		11.8	36.6	
Queue Length 50th (ft)		182	0		4		16	147		1	364	
Queue Length 95th (ft)		255	18		20		m35	245		7	#741	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		515	667		691		395	1034		600	854	
Starvation Cap Reductn		0	0		0		0	184		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.68	0.10		0.04		0.20	0.57		0.01	0.87	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	308	13	62	2	8	16	73	430	13	5	531	150
Future Volume (veh/h)	308	13	62	2	8	16	73	430	13	5	531	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.98	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2263	2263	2263	1986	2091	2106	1817	1803	1817
Adj Flow Rate, veh/h	335	14	67	2	9	17	79	467	14	5	577	163
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	10	3	2	2	3	2
Cap, veh/h	178	4	607	43	166	256	395	560	17	422	372	105
Arrive On Green	0.39	0.39	0.39	0.39	0.39	0.39	0.17	0.28	0.28	0.17	0.28	0.28
Sat Flow, veh/h	255	11	1561	0	426	658	1891	2017	60	1731	1341	379
Grp Volume(v), veh/h	349	0	67	28	0	0	79	0	481	5	0	740
Grp Sat Flow(s),veh/h/ln	266	0	1561	1084	0	0	1891	0	2078	1731	0	1720
Q Serve(g_s), s	0.0	0.0	2.5	0.0	0.0	0.0	0.0	0.0	19.6	0.0	0.0	25.0
Cycle Q Clear(g_c), s	35.0	0.0	2.5	35.0	0.0	0.0	0.0	0.0	19.6	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.07		0.61	1.00		0.03	1.00		0.22
Lane Grp Cap(c), veh/h	182	0	607	465	0	0	395	0	577	422	0	478
V/C Ratio(X)	1.92	0.00	0.11	0.06	0.00	0.00	0.20	0.00	0.83	0.01	0.00	1.55
Avail Cap(c_a), veh/h	182	0	607	465	0	0	395	0	577	422	0	478
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.86	0.00	0.86	1.00	0.00	1.00
Uniform Delay (d), s/veh	35.0	0.0	17.6	18.5	0.0	0.0	31.3	0.0	30.5	27.1	0.0	32.5
Incr Delay (d2), s/veh	433.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	11.6	0.0	0.0	257.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	25.9	0.0	0.9	0.4	0.0	0.0	1.4	0.0	11.3	0.1	0.0	44.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	468.3	0.0	17.6	18.5	0.0	0.0	31.3	0.0	42.2	27.1	0.0	289.8
LnGrp LOS	F	A	B	B	A	A	C	A	D	C	A	F
Approach Vol, veh/h		416			28			560			745	
Approach Delay, s/veh		395.7			18.5			40.6			288.1	
Approach LOS		F			B			D			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	20.0	30.0		40.0	20.0	30.0		40.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	25.0		35.0	15.0	25.0		35.0				
Max Q Clear Time (g_c+I1), s	2.0	21.6		37.0	2.0	27.0		37.0				
Green Ext Time (p_c), s	0.0	0.4		0.0	0.0	0.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			230.1									
HCM 6th LOS			F									

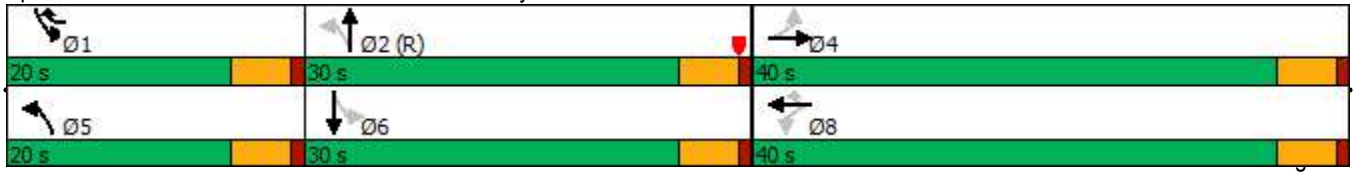
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	8	2	50	2	184	2	329	80	257	347	0
Future Volume (vph)	2	8	2	50	2	184	2	329	80	257	347	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.95		0.99				
Frt		0.979				0.850		0.971				
Flt Protected		0.992			0.954		0.950			0.950		
Satd. Flow (prot)	0	1825	0	0	1885	1647	1832	1803	0	1743	1853	0
Flt Permitted		0.961			0.720		0.529			0.322		
Satd. Flow (perm)	0	1768	0	0	1423	1566	1020	1803	0	591	1853	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		3										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			9			15			21			12
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	2%	5%	2%	1%	0%
Adj. Flow (vph)	3	13	3	55	2	202	3	416	101	292	394	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	0	57	202	3	517	0	292	394	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	40		20	40	40	40	40		40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	40.0	40.0		40.0	40.0	20.0	20.0	30.0		20.0	30.0	
Total Split (%)	44.4%	44.4%		44.4%	44.4%	22.2%	22.2%	33.3%		22.2%	33.3%	
Maximum Green (s)	35.0	35.0		35.0	35.0	15.0	15.0	25.0		15.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	9	9		15	15			21				
v/c Ratio		0.07			0.28	0.42	0.00	0.53		0.45	0.28	
Control Delay		25.3			34.0	22.3	8.0	20.7		13.4	6.1	
Queue Delay		0.0			0.0	0.0	0.0	0.1		0.0	0.4	
Total Delay		25.3			34.0	22.3	8.0	20.8		13.4	6.5	
Queue Length 50th (ft)		9			31	90	0	161		31	30	
Queue Length 95th (ft)		15			57	96	3	326		m115	m98	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		689			553	516	857	983		666	1402	
Starvation Cap Reductn		0			0	0	0	0		0	543	
Spillback Cap Reductn		0			0	0	0	32		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.03			0.10	0.39	0.00	0.54		0.44	0.46	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 70
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	8	2	50	2	184	2	329	80	257	347	0
Future Volume (veh/h)	2	8	2	50	2	184	2	329	80	257	347	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.95	0.97		0.95	0.99		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2185	2018	1988	1943	1817	1832	1847
Adj Flow Rate, veh/h	3	13	3	55	2	202	3	416	101	292	394	0
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	2	0	2	5	2	1	0
Cap, veh/h	66	216	44	332	11	442	701	900	218	600	1229	0
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.00	0.59	0.59	0.09	0.67	0.00
Sat Flow, veh/h	125	1347	276	1582	69	1765	1922	1532	372	1731	1832	0
Grp Volume(v), veh/h	19	0	0	57	0	202	3	0	517	292	394	0
Grp Sat Flow(s),veh/h/ln	1748	0	0	1650	0	1765	1922	0	1904	1731	1832	0
Q Serve(g_s), s	0.0	0.0	0.0	1.7	0.0	8.8	0.1	0.0	13.8	5.6	8.1	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	2.5	0.0	8.8	0.1	0.0	13.8	5.6	8.1	0.0
Prop In Lane	0.16		0.16	0.96		1.00	1.00		0.20	1.00		0.00
Lane Grp Cap(c), veh/h	326	0	0	343	0	442	701	0	1118	600	1229	0
V/C Ratio(X)	0.06	0.00	0.00	0.17	0.00	0.46	0.00	0.00	0.46	0.49	0.32	0.00
Avail Cap(c_a), veh/h	706	0	0	715	0	845	1017	0	1118	740	1229	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.49	0.49	0.00
Uniform Delay (d), s/veh	32.1	0.0	0.0	32.7	0.0	28.9	7.6	0.0	10.5	7.1	6.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0	1.4	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	1.1	0.0	3.7	0.0	0.0	5.7	1.7	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	0.0	0.0	32.8	0.0	29.2	7.6	0.0	11.9	7.3	6.6	0.0
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		19			259			520			686	
Approach Delay, s/veh		32.1			30.0			11.9			6.9	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.7	57.9		19.4	5.2	65.4		19.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	15.0	25.0		35.0	15.0	25.0		35.0				
Max Q Clear Time (g_c+I1), s	7.6	15.8		2.8	2.1	10.1		10.8				
Green Ext Time (p_c), s	0.2	0.4		0.0	0.0	0.3		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		13.0	
HCM 6th LOS		B	



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	3	7	0	346	205	3
Future Volume (vph)	3	7	0	346	205	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.904				0.998	
Flt Protected	0.986					
Satd. Flow (prot)	1801	0	0	1977	1869	0
Flt Permitted	0.986					
Satd. Flow (perm)	1801	0	0	1977	1869	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	8	8			14
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	4	10	0	487	289	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	0	0	487	293	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.2

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	3	7	0	346	205	3
Future Vol, veh/h	3	7	0	346	205	3
Conflicting Peds, #/hr	14	8	8	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	4	2
Mvmt Flow	4	10	0	487	289	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	806	313	307	0	-	0
Stage 1	305	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	550	793	1254	-	-	-
Stage 1	886	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	536	777	1238	-	-	-
Mov Cap-2 Maneuver	536	-	-	-	-	-
Stage 1	874	-	-	-	-	-
Stage 2	794	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1238	-	685	-	-
HCM Lane V/C Ratio	-	-	0.021	-	-
HCM Control Delay (s)	0	-	10.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	43	9	9	339	198	31
Future Volume (vph)	43	9	9	339	198	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	16	11	12
Grade (%)	0%			2%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.976				0.982	
Flt Protected	0.960			0.999		
Satd. Flow (prot)	1920	0	0	2088	1739	0
Flt Permitted	0.960			0.999		
Satd. Flow (perm)	1920	0	0	2088	1739	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			216	408	
Travel Time (s)	4.5			4.9	9.3	
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	61	13	13	477	279	44
Shared Lane Traffic (%)						
Lane Group Flow (vph)	74	0	0	490	323	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.86	1.04	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.5

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	43	9	9	339	198	31
Future Vol, veh/h	43	9	9	339	198	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	4	2
Mvmt Flow	61	13	13	477	279	44

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	804	301	323	0	-	0
Stage 1	301	-	-	-	-	-
Stage 2	503	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	352	739	1237	-	-	-
Stage 1	751	-	-	-	-	-
Stage 2	607	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	347	739	1237	-	-	-
Mov Cap-2 Maneuver	347	-	-	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	607	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	16.6	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1237	-	382	-	-
HCM Lane V/C Ratio	0.01	-	0.192	-	-
HCM Control Delay (s)	7.9	0	16.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	77	0	19	111	0	10
Future Volume (vph)	77	0	19	111	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	13	9	12
Grade (%)	-5%			3%	3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.993		
Satd. Flow (prot)	1973	0	0	1883	1428	0
Flt Permitted				0.993		
Satd. Flow (perm)	1973	0	0	1883	1428	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	341			103	156	
Travel Time (s)	7.8			2.3	3.5	
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Adj. Flow (vph)	108	0	27	156	0	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	0	183	14	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	9	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.93	0.97	1.02	0.98	1.17	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	77	0	19	111	0	10
Future Vol, veh/h	77	0	19	111	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	3	3	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	108	0	27	156	0	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	108	0	318	108
Stage 1	-	-	-	-	108	-
Stage 2	-	-	-	-	210	-
Critical Hdwy	-	-	4.12	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1483	-	640	937
Stage 1	-	-	-	-	900	-
Stage 2	-	-	-	-	797	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1483	-	627	937
Mov Cap-2 Maneuver	-	-	-	-	627	-
Stage 1	-	-	-	-	900	-
Stage 2	-	-	-	-	781	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	937	-	-	1483	-
HCM Lane V/C Ratio	0.015	-	-	0.018	-
HCM Control Delay (s)	8.9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-

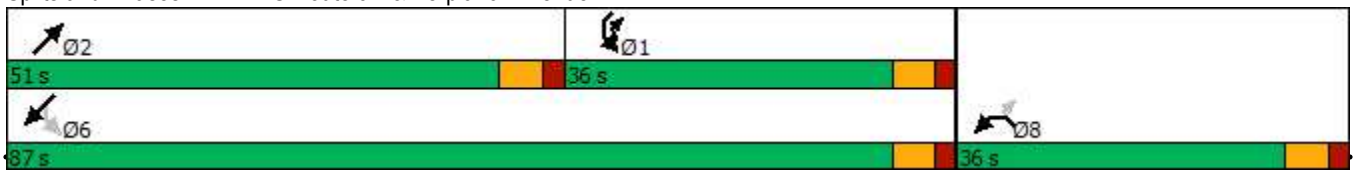
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	55	287	647	46	217	745
Future Volume (vph)	55	287	647	46	217	745
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98		1.00			
Frt		0.850	0.991			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1816	0	1778	1872
Flt Permitted	0.950				0.186	
Satd. Flow (perm)	1688	1544	1816	0	348	1872
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	7			1	1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	312	703	50	236	810
Shared Lane Traffic (%)						
Lane Group Flow (vph)	60	312	753	0	236	810
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.34	0.57	0.81		0.41	0.53
Control Delay	44.7	26.8	30.4		13.2	6.3
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	44.7	26.8	30.4		13.2	6.3
Queue Length 50th (ft)	33	139	347		26	136
Queue Length 95th (ft)	75	211	#793		77	364
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	588	615	928		796	1663
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.10	0.51	0.81		0.30	0.49

Intersection Summary

Area Type: Other
Cycle Length: 123
Actuated Cycle Length: 89.9
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue

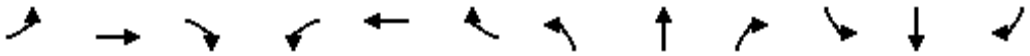




Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	55	287	647	46	217	745	
Future Volume (veh/h)	55	287	647	46	217	745	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1909	
Adj Flow Rate, veh/h	60	312	703	50	236	810	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	278	363	784	56	295	1225	
Arrive On Green	0.17	0.17	0.47	0.47	0.08	0.64	
Sat Flow, veh/h	1641	1460	1676	119	1818	1909	
Grp Volume(v), veh/h	60	312	0	753	236	810	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1796	1818	1909	
Q Serve(g_s), s	2.0	7.9	0.0	24.4	2.7	16.8	
Cycle Q Clear(g_c), s	2.0	7.9	0.0	24.4	2.7	16.8	
Prop In Lane	1.00	1.00		0.07	1.00		
Lane Grp Cap(c), veh/h	278	363	0	840	295	1225	
V/C Ratio(X)	0.22	0.86	0.00	0.90	0.80	0.66	
Avail Cap(c_a), veh/h	776	806	0	1274	1011	2438	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	22.7	22.8	0.0	15.5	27.0	7.1	
Incr Delay (d2), s/veh	0.1	2.3	0.0	5.9	1.9	0.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.7	4.3	0.0	9.8	3.4	5.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.9	25.1	0.0	21.4	28.9	7.7	
LnGrp LOS	C	C	A	C	C	A	
Approach Vol, veh/h	372		753			1046	
Approach Delay, s/veh	24.8		21.4			12.5	
Approach LOS	C		C			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	11.0	35.7				46.7	16.7
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	4.7	26.4				18.8	9.9
Green Ext Time (p_c), s	0.5	3.3				4.1	0.8

Intersection Summary							
HCM 6th Ctrl Delay			17.7				
HCM 6th LOS			B				



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	2	18	4	6	11	24	621	5	8	696	97
Future Volume (vph)	70	2	18	4	6	11	24	621	5	8	696	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt		0.973			0.926			0.999			0.984	
Flt Protected		0.963			0.991		0.950				0.999	
Satd. Flow (prot)	0	1826	0	0	1766	0	1770	1923	0	0	1939	0
Flt Permitted		0.963			0.991		0.950				0.999	
Satd. Flow (perm)	0	1826	0	0	1766	0	1770	1923	0	0	1939	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		6	2		2	6		2	2		6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	74	2	19	4	6	12	26	661	5	9	740	103
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	95	0	0	22	0	26	666	0	0	852	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

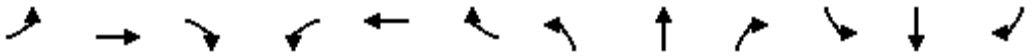
Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	70	2	18	4	6	11	24	621	5	8	696	97
Future Vol, veh/h	70	2	18	4	6	11	24	621	5	8	696	97
Conflicting Peds, #/hr	6	0	6	2	0	2	6	0	2	2	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	-4	-	-	0	-	-	0	-	-	-5	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	74	2	19	4	6	12	26	661	5	9	740	103

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1547	1536	804	1544	1585	672	849	0	0	668	0	0
Stage 1	816	816	-	718	718	-	-	-	-	-	-	-
Stage 2	731	720	-	826	867	-	-	-	-	-	-	-
Critical Hdwy	6.33	5.72	5.82	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	5.33	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.33	4.72	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	131	163	419	94	108	456	789	-	-	922	-	-
Stage 1	443	468	-	420	433	-	-	-	-	-	-	-
Stage 2	484	507	-	366	370	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	116	154	414	85	102	453	785	-	-	920	-	-
Mov Cap-2 Maneuver	116	154	-	85	102	-	-	-	-	-	-	-
Stage 1	426	457	-	405	418	-	-	-	-	-	-	-
Stage 2	446	489	-	339	361	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	78.1	30.9	0.4	0.1
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	785	-	-	136	161	920	-	-
HCM Lane V/C Ratio	0.033	-	-	0.704	0.139	0.009	-	-
HCM Control Delay (s)	9.7	-	-	78.1	30.9	8.9	0	-
HCM Lane LOS	A	-	-	F	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	4	0.5	0	-	-

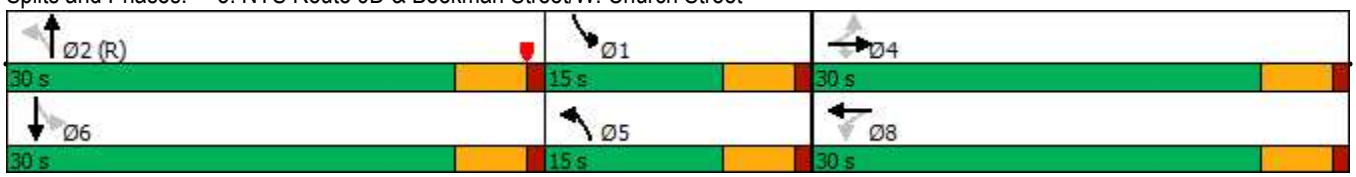


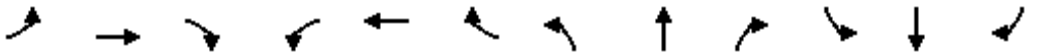
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	163	6	68	10	4	8	103	470	4	8	512	197
Future Volume (vph)	163	6	68	10	4	8	103	470	4	8	512	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98	0.97		0.98		1.00	1.00		1.00	0.99	
Frt			0.850		0.949			0.999			0.958	
Flt Protected		0.954			0.978		0.950			0.950		
Satd. Flow (prot)	0	1759	1567	0	1790	0	1823	1916	0	1743	1744	0
Flt Permitted		0.716			0.856		0.147			0.358		
Satd. Flow (perm)	0	1298	1524	0	1564	0	282	1916	0	655	1744	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		9			1			28	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	11		3	3		11	6		9	9		6
Confl. Bikes (#/hr)			3									
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	183	7	76	11	4	9	116	528	4	9	575	221
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	190	76	0	24	0	116	532	0	9	796	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA	Perm	Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4		4	8			2			6		
Detector Phase	4	4	4	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	10.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0	30.0	30.0	30.0		15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%	40.0%	40.0%	40.0%		20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0	25.0	25.0	25.0		10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lag	Lead		Lag	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	2.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)				8.0	8.0							
Flash Dont Walk (s)				15.0	15.0							
Pedestrian Calls (#/hr)				11	11							
v/c Ratio		0.70	0.19		0.07		0.40	0.45		0.02	0.82	
Control Delay		40.6	3.9		16.0		16.7	12.2		7.1	27.1	
Queue Delay		0.0	0.0		0.0		0.0	0.3		0.0	0.0	
Total Delay		40.6	3.9		16.0		16.7	12.5		7.1	27.1	
Queue Length 50th (ft)		83	0		6		21	104		1	280	
Queue Length 95th (ft)		130	18		21		m0	220		7	#641	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		432	576		527		408	1193		590	965	
Starvation Cap Reductn		0	0		0		0	203		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.44	0.13		0.05		0.28	0.54		0.02	0.82	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street

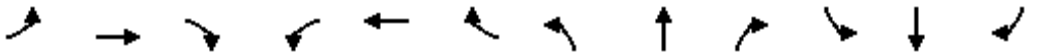




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	6	68	10	4	8	103	470	4	8	512	197
Future Volume (veh/h)	163	6	68	10	4	8	103	470	4	8	512	197
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.95	0.99		0.98	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2263	2263	2263	2106	2106	2106	1817	1817	1817
Adj Flow Rate, veh/h	183	7	76	11	4	9	116	528	4	9	575	221
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	328	9	361	107	55	55	547	696	5	576	415	160
Arrive On Green	0.24	0.24	0.24	0.24	0.24	0.24	0.22	0.33	0.33	0.22	0.33	0.33
Sat Flow, veh/h	969	37	1492	153	226	227	2006	2087	16	1731	1245	479
Grp Volume(v), veh/h	190	0	76	24	0	0	116	0	532	9	0	796
Grp Sat Flow(s),veh/h/ln	1006	0	1492	607	0	0	2006	0	2103	1731	0	1723
Q Serve(g_s), s	0.0	0.0	3.1	0.2	0.0	0.0	0.0	0.0	16.9	0.0	0.0	25.0
Cycle Q Clear(g_c), s	14.7	0.0	3.1	14.9	0.0	0.0	0.0	0.0	16.9	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.46		0.37	1.00		0.01	1.00		0.28
Lane Grp Cap(c), veh/h	337	0	361	217	0	0	547	0	701	576	0	574
V/C Ratio(X)	0.56	0.00	0.21	0.11	0.00	0.00	0.21	0.00	0.76	0.02	0.00	1.39
Avail Cap(c_a), veh/h	464	0	497	379	0	0	547	0	701	576	0	574
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.86	0.00	0.86	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.1	0.0	22.7	22.8	0.0	0.0	22.5	0.0	22.3	16.9	0.0	25.0
Incr Delay (d2), s/veh	0.6	0.0	0.1	0.1	0.0	0.0	0.1	0.0	6.6	0.0	0.0	184.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.1	0.0	1.0	0.3	0.0	0.0	1.5	0.0	9.1	0.1	0.0	38.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	27.7	0.0	22.8	22.9	0.0	0.0	22.6	0.0	28.9	16.9	0.0	209.1
LnGrp LOS	C	A	C	C	A	A	C	A	C	B	A	F
Approach Vol, veh/h		266			24			648			805	
Approach Delay, s/veh		26.3			22.9			27.7			207.0	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.9	30.0		23.1	21.9	30.0		23.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	2.0	18.9		16.7	2.0	27.0		16.9				
Green Ext Time (p_c), s	0.0	0.7		0.4	0.0	0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		110.2	
HCM 6th LOS		F	



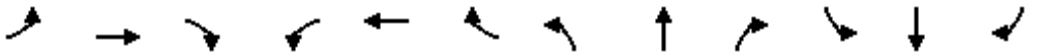
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	2	2	38	0	219	2	357	52	275	320	3
Future Volume (vph)	2	2	2	38	0	219	2	357	52	275	320	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.97		0.99			1.00	
Frt		0.955				0.850		0.981			0.999	
Flt Protected		0.984			0.950		0.950			0.950		
Satd. Flow (prot)	0	1751	0	0	1877	1663	1832	1825	0	1760	1851	0
Flt Permitted		0.898			0.752		0.551			0.370		
Satd. Flow (perm)	0	1598	0	0	1486	1614	1063	1825	0	686	1851	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		3									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			14			6			48			11
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	2%	5%	1%	1%	0%
Adj. Flow (vph)	3	3	3	43	0	246	2	406	59	299	348	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	9	0	0	43	246	2	465	0	299	351	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	-7	-7		-7	-7	
Detector 1 Size(ft)	20	40		20	40	40	40	40		40	40	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	28.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0	15.0	15.0	30.0		15.0	30.0	
Total Split (%)	40.0%	40.0%		40.0%	40.0%	20.0%	20.0%	40.0%		20.0%	40.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0	10.0	10.0	25.0		10.0	25.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	14	14		6	6			48				
v/c Ratio		0.04			0.23	0.60	0.00	0.44		0.43	0.24	
Control Delay		20.5			28.9	27.0	6.5	14.8		8.7	5.2	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		20.5			28.9	27.0	6.5	14.8		8.7	5.2	
Queue Length 50th (ft)		3			19	94	0	113		19	22	
Queue Length 95th (ft)		9			36	99	3	#318		m91	m82	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		534			495	416	857	1053		707	1472	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	19		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.02			0.09	0.59	0.00	0.45		0.42	0.24	

Intersection Summary	
Area Type:	Other
Cycle Length: 75	
Actuated Cycle Length: 75	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	2	38	0	219	2	357	52	275	320	3
Future Volume (veh/h)	2	2	2	38	0	219	2	357	52	275	320	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.96		0.98	0.99		0.95	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2200	2018	1988	1943	1832	1832	1847
Adj Flow Rate, veh/h	3	3	3	43	0	246	2	406	59	299	348	3
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	1	0	2	5	1	1	0
Cap, veh/h	126	120	91	382	0	511	677	881	128	605	1127	10
Arrive On Green	0.18	0.18	0.18	0.18	0.00	0.18	0.00	0.52	0.52	0.10	0.62	0.62
Sat Flow, veh/h	349	679	514	1615	0	1832	1922	1685	245	1745	1814	16
Grp Volume(v), veh/h	9	0	0	43	0	246	2	0	465	299	0	351
Grp Sat Flow(s),veh/h/ln	1543	0	0	1615	0	1832	1922	0	1930	1745	0	1829
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	8.4	0.0	0.0	11.4	5.4	0.0	6.7
Cycle Q Clear(g_c), s	0.3	0.0	0.0	1.6	0.0	8.4	0.0	0.0	11.4	5.4	0.0	6.7
Prop In Lane	0.33		0.33	1.00		1.00	1.00		0.13	1.00		0.01
Lane Grp Cap(c), veh/h	337	0	0	382	0	511	677	0	1010	605	0	1137
V/C Ratio(X)	0.03	0.00	0.00	0.11	0.00	0.48	0.00	0.00	0.46	0.49	0.00	0.31
Avail Cap(c_a), veh/h	565	0	0	633	0	797	930	0	1010	663	0	1137
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.55	0.00	0.55
Uniform Delay (d), s/veh	25.5	0.0	0.0	26.0	0.0	22.6	8.5	0.0	11.2	7.3	0.0	6.7
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	1.5	0.1	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.1	0.0	0.0	0.6	0.0	3.5	0.0	0.0	4.7	1.6	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	25.5	0.0	0.0	26.1	0.0	22.9	8.5	0.0	12.8	7.5	0.0	7.0
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		9			289			467			650	
Approach Delay, s/veh		25.5			23.4			12.7			7.2	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.5	44.2		18.3	5.1	51.6		18.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	25.0		25.0	10.0	25.0		25.0				
Max Q Clear Time (g_c+I1), s	7.4	13.4		2.3	2.0	8.7		10.4				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.6				

Intersection Summary												
HCM 6th Ctrl Delay			12.5									
HCM 6th LOS			B									



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	2	0	208	264	0
Future Volume (vph)	2	2	0	208	264	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976					
Satd. Flow (prot)	1838	0	0	1977	1909	0
Flt Permitted	0.976					
Satd. Flow (perm)	1838	0	0	1977	1909	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	17	17			14
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	2	2	0	242	307	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	242	307	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	2	0	208	264	0
Future Vol, veh/h	2	2	0	208	264	0
Conflicting Peds, #/hr	14	17	17	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	2	0	242	307	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	580	341	324	0	-	0
Stage 1	324	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	658	771	1236	-	-	-
Stage 1	878	-	-	-	-	-
Stage 2	907	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	638	747	1217	-	-	-
Mov Cap-2 Maneuver	638	-	-	-	-	-
Stage 1	865	-	-	-	-	-
Stage 2	893	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1217	-	688	-	-
HCM Lane V/C Ratio	-	-	0.007	-	-
HCM Control Delay (s)	0	-	10.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	38	8	8	201	256	29
Future Volume (vph)	38	8	8	201	256	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	16	11	12
Grade (%)	0%			2%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.977				0.986	
Flt Protected	0.960			0.998		
Satd. Flow (prot)	1922	0	0	2086	1775	0
Flt Permitted	0.960			0.998		
Satd. Flow (perm)	1922	0	0	2086	1775	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			216	408	
Travel Time (s)	4.5			4.9	9.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	44	9	9	234	298	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	0	0	243	332	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.86	1.04	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1.2

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	38	8	8	201	256	29
Future Vol, veh/h	38	8	8	201	256	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	9	9	234	298	34

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	567	315	332	0	-	0
Stage 1	315	-	-	-	-	-
Stage 2	252	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	485	725	1227	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	481	725	1227	-	-	-
Mov Cap-2 Maneuver	481	-	-	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	790	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	12.9	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1227	-	511	-	-
HCM Lane V/C Ratio	0.008	-	0.105	-	-
HCM Control Delay (s)	8	0	12.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	79	0	18	108	0	9
Future Volume (vph)	79	0	18	108	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	13	9	12
Grade (%)	-5%			3%	3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.993		
Satd. Flow (prot)	1973	0	0	1883	1428	0
Flt Permitted				0.993		
Satd. Flow (perm)	1973	0	0	1883	1428	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	341			103	156	
Travel Time (s)	7.8			2.3	3.5	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	92	0	21	126	0	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	92	0	0	147	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	9	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.93	0.97	1.02	0.98	1.17	1.02
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

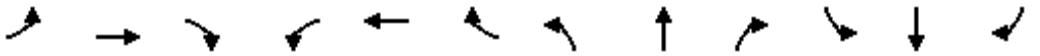
Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	79	0	18	108	0	9
Future Vol, veh/h	79	0	18	108	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	3	3	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	0	21	126	0	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	92	0	260	92
Stage 1	-	-	-	-	92	-
Stage 2	-	-	-	-	168	-
Critical Hdwy	-	-	4.12	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1503	-	698	958
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	838	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1503	-	688	958
Mov Cap-2 Maneuver	-	-	-	-	688	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	825	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	958	-	-	1503	-
HCM Lane V/C Ratio	0.011	-	-	0.014	-
HCM Control Delay (s)	8.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-



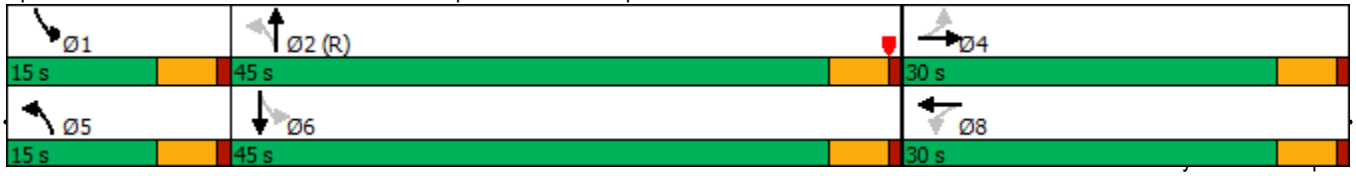
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	4	38	9	0	9	20	542	6	2	727	54
Future Volume (vph)	76	4	38	9	0	9	20	542	6	2	727	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.96			1.00			1.00	
Frt		0.956			0.932			0.998			0.990	
Flt Protected		0.969			0.976		0.950			0.950		
Satd. Flow (prot)	0	1783	0	0	1617	0	1770	1848	0	1814	1902	0
Flt Permitted		0.794			0.870		0.250			0.400		
Satd. Flow (perm)	0	1445	0	0	1420	0	466	1848	0	764	1902	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		26			85			1			5	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		8	14		12	8		14	12		6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	4%	13%	2%	2%	2%	6%	2%	2%	4%	11%
Adj. Flow (vph)	80	4	40	9	0	9	21	571	6	2	765	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	124	0	0	18	0	21	577	0	2	822	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Number of Detectors	1	2		1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41		41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1		1	1		1	1	
Detector 2 Size(ft)		40			40		40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

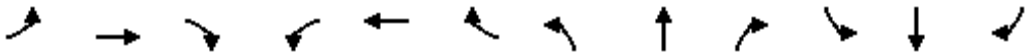
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0		15.0	45.0		15.0	45.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		16.7%	50.0%		16.7%	50.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0		10.0	40.0		10.0	40.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Walk Time (s)	5.0	5.0		5.0	5.0			5.0			5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0			11.0	
Pedestrian Calls (#/hr)	8	8		12	12			14			6	
v/c Ratio		0.64			0.07		0.05	0.42		0.00	0.59	
Control Delay		44.0			0.6		3.5	6.4		3.5	10.0	
Queue Delay		0.0			0.0		0.0	1.7		0.0	0.0	
Total Delay		44.0			0.6		3.5	8.1		3.5	10.0	
Queue Length 50th (ft)		54			0		2	85		0	147	
Queue Length 95th (ft)		104			0		9	250		2	439	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		420			455		503	1387		705	1388	
Starvation Cap Reductn		0			0		0	610		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.30			0.04		0.04	0.74		0.00	0.59	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 2: NYS Route 9D & Tompkins Avenue/Ralph Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	76	4	38	9	0	9	20	542	6	2	727	54
Future Volume (veh/h)	76	4	38	9	0	9	20	542	6	2	727	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.94		0.97	0.98		0.94	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2027	2108	1997	1707	1945	1870	1870	1884	1870	2067	2118	1932
Adj Flow Rate, veh/h	80	4	40	9	0	9	21	571	6	2	765	57
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	4	13	2	2	2	6	2	2	4	11
Cap, veh/h	175	16	60	137	19	95	446	1333	14	629	1371	102
Arrive On Green	0.12	0.12	0.12	0.12	0.00	0.12	0.01	0.72	0.72	0.00	0.70	0.70
Sat Flow, veh/h	947	142	519	668	162	830	1781	1860	20	1968	1946	145
Grp Volume(v), veh/h	124	0	0	18	0	0	21	0	577	2	0	822
Grp Sat Flow(s),veh/h/ln	1608	0	0	1660	0	0	1781	0	1880	1968	0	2091
Q Serve(g_s), s	5.7	0.0	0.0	0.0	0.0	0.0	0.3	0.0	11.3	0.0	0.0	17.2
Cycle Q Clear(g_c), s	6.6	0.0	0.0	0.8	0.0	0.0	0.3	0.0	11.3	0.0	0.0	17.2
Prop In Lane	0.65		0.32	0.50		0.50	1.00		0.01	1.00		0.07
Lane Grp Cap(c), veh/h	251	0	0	251	0	0	446	0	1347	629	0	1473
V/C Ratio(X)	0.49	0.00	0.00	0.07	0.00	0.00	0.05	0.00	0.43	0.00	0.00	0.56
Avail Cap(c_a), veh/h	507	0	0	489	0	0	620	0	1347	844	0	1473
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.94	0.00	0.94	1.00	0.00	1.00
Uniform Delay (d), s/veh	38.1	0.0	0.0	35.6	0.0	0.0	5.3	0.0	5.2	4.5	0.0	6.5
Incr Delay (d2), s/veh	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.0	0.0	1.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.6	0.0	0.0	0.4	0.0	0.0	0.1	0.0	3.8	0.0	0.0	6.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.6	0.0	0.0	35.7	0.0	0.0	5.3	0.0	6.1	4.5	0.0	8.0
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		124			18			598			824	
Approach Delay, s/veh		38.6			35.7			6.1			8.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	69.5		15.4	6.2	68.4		15.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	40.0		25.0	10.0	40.0		25.0				
Max Q Clear Time (g_c+I1), s	2.0	13.3		8.6	2.3	19.2		2.8				
Green Ext Time (p_c), s	0.0	1.2		0.2	0.0	2.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		10.0	
HCM 6th LOS		B	

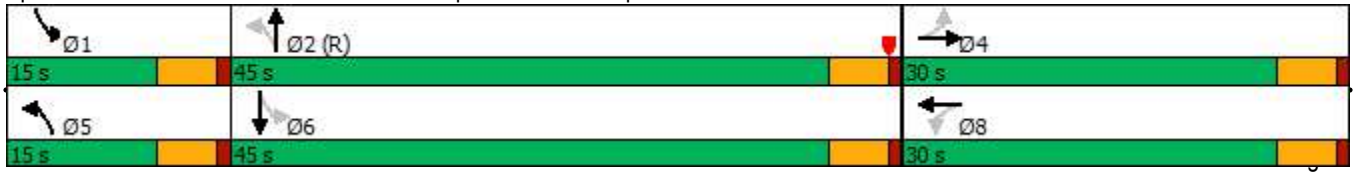
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	53	6	19	7	4	5	27	705	6	6	654	81
Future Volume (vph)	53	6	19	7	4	5	27	705	6	6	654	81
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.99			1.00			1.00	
Frt		0.967			0.960			0.999			0.983	
Flt Protected		0.967			0.977		0.950			0.950		
Satd. Flow (prot)	0	1823	0	0	1681	0	1770	1922	0	1814	1917	0
Flt Permitted		0.787			0.886		0.257			0.299		
Satd. Flow (perm)	0	1476	0	0	1522	0	479	1922	0	571	1917	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			5			1			9	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	4		4	2		2	4		2	2		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	25%	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	58	7	21	8	4	5	29	766	7	7	711	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	17	0	29	773	0	7	799	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Number of Detectors	1	2		1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41		41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1		1	1		1	1	
Detector 2 Size(ft)		40			40		40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

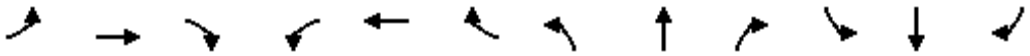
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0		15.0	45.0		15.0	45.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		16.7%	50.0%		16.7%	50.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0		10.0	40.0		10.0	40.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0			8.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0			15.0	
Pedestrian Calls (#/hr)	8	8		12	12			14			6	
v/c Ratio		0.45			0.09		0.07	0.51		0.01	0.56	
Control Delay		34.7			26.0		2.8	5.2		4.7	11.2	
Queue Delay		0.0			0.0		0.0	0.3		0.0	0.8	
Total Delay		34.7			26.0		2.8	5.5		4.7	12.0	
Queue Length 50th (ft)		37			6		1	33		1	203	
Queue Length 95th (ft)		69			21		m6	307		6	516	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		423			426		522	1503		590	1420	
Starvation Cap Reductn		0			0		0	267		0	0	
Spillback Cap Reductn		2			0		0	0		0	316	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.20			0.04		0.06	0.63		0.01	0.72	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 55
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: NYS Route 9D & Tompkins Avenue/Ralph Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	53	6	19	7	4	5	27	705	6	6	654	81
Future Volume (veh/h)	53	6	19	7	4	5	27	705	6	6	654	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2027	2108	2027	1870	1945	1530	1870	1945	1870	2067	2134	2067
Adj Flow Rate, veh/h	58	7	21	8	4	5	29	766	7	7	711	88
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	25	2	2	2	2	3	2
Cap, veh/h	152	18	33	106	53	42	500	1438	13	656	1369	169
Arrive On Green	0.08	0.08	0.08	0.08	0.08	0.08	0.03	1.00	1.00	0.01	0.74	0.74
Sat Flow, veh/h	1050	221	410	582	653	515	1781	1924	18	1968	1861	230
Grp Volume(v), veh/h	86	0	0	17	0	0	29	0	773	7	0	799
Grp Sat Flow(s),veh/h/ln	1681	0	0	1750	0	0	1781	0	1942	1968	0	2091
Q Serve(g_s), s	3.6	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.1	0.0	14.7
Cycle Q Clear(g_c), s	4.4	0.0	0.0	0.8	0.0	0.0	0.4	0.0	0.0	0.1	0.0	14.7
Prop In Lane	0.67		0.24	0.47		0.29	1.00		0.01	1.00		0.11
Lane Grp Cap(c), veh/h	203	0	0	200	0	0	500	0	1451	656	0	1538
V/C Ratio(X)	0.42	0.00	0.00	0.08	0.00	0.00	0.06	0.00	0.53	0.01	0.00	0.52
Avail Cap(c_a), veh/h	526	0	0	511	0	0	667	0	1451	865	0	1538
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.89	0.00	0.89	1.00	0.00	1.00
Uniform Delay (d), s/veh	40.0	0.0	0.0	38.4	0.0	0.0	4.0	0.0	0.0	3.0	0.0	5.1
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.3	0.0	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.5	0.0	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.5	0.0	0.0	38.4	0.0	0.0	4.0	0.0	1.3	3.0	0.0	6.4
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		86			17			802			806	
Approach Delay, s/veh		40.5			38.4			1.4			6.3	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	72.3		12.3	6.5	71.2		12.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	40.0		25.0	10.0	40.0		25.0				
Max Q Clear Time (g_c+I1), s	2.1	2.0		6.4	2.4	16.7		2.8				
Green Ext Time (p_c), s	0.0	1.8		0.1	0.0	1.9		0.0				

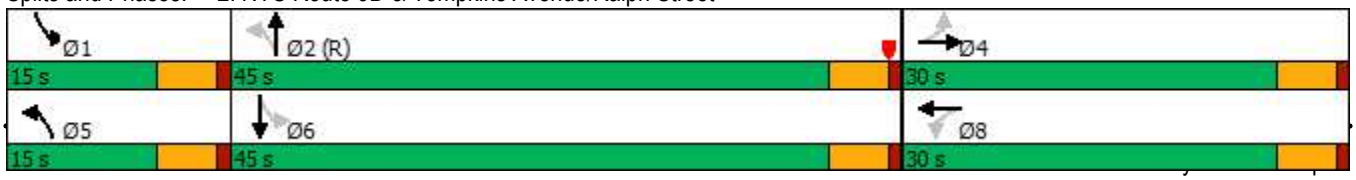
Intersection Summary												
HCM 6th Ctrl Delay			6.0									
HCM 6th LOS			A									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	2	18	4	6	11	24	607	5	8	690	79
Future Volume (vph)	61	2	18	4	6	11	24	607	5	8	690	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			86			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.99			1.00			1.00	
Frt		0.970			0.926			0.999			0.985	
Flt Protected		0.964			0.991		0.950			0.950		
Satd. Flow (prot)	0	1810	0	0	1743	0	1770	1923	0	1814	1937	0
Flt Permitted		0.764			0.942		0.256			0.360		
Satd. Flow (perm)	0	1422	0	0	1656	0	477	1923	0	687	1937	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			12			1			8	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		6	2		2	6		2	2		6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	65	2	19	4	6	12	26	646	5	9	734	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	22	0	26	651	0	9	818	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41		41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1		1	1		1	1	
Detector 2 Size(ft)		40			40		40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0		15.0	45.0		15.0	45.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		16.7%	50.0%		16.7%	50.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0		10.0	40.0		10.0	40.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0			8.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0			15.0	
Pedestrian Calls (#/hr)	8	8		12	12			14			6	
v/c Ratio		0.46			0.10		0.06	0.43		0.02	0.56	
Control Delay		36.0			21.0		4.4	7.5		4.6	10.5	
Queue Delay		0.0			0.0		0.0	1.3		0.0	0.0	
Total Delay		36.0			21.0		4.4	8.8		4.6	10.5	
Queue Length 50th (ft)		38			5		2	88		1	125	
Queue Length 95th (ft)		70			23		14	363		7	530	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		406			468		520	1500		667	1470	
Starvation Cap Reductn		0			0		0	608		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.21			0.05		0.05	0.73		0.01	0.56	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

Splits and Phases: 2: NYS Route 9D & Tompkins Avenue/Ralph Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	2	18	4	6	11	24	607	5	8	690	79
Future Volume (veh/h)	61	2	18	4	6	11	24	607	5	8	690	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.98		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2012	2108	2027	1870	1945	1870	1870	1945	1870	2067	2149	2067
Adj Flow Rate, veh/h	65	2	19	4	6	12	26	646	5	9	734	84
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	171	10	31	59	55	80	484	1428	11	619	1385	158
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.02	0.74	0.74	0.01	0.73	0.73
Sat Flow, veh/h	1172	118	366	134	647	936	1781	1927	15	1968	1893	217
Grp Volume(v), veh/h	86	0	0	22	0	0	26	0	651	9	0	818
Grp Sat Flow(s),veh/h/ln	1656	0	0	1716	0	0	1781	0	1942	1968	0	2109
Q Serve(g_s), s	3.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0	11.8	0.1	0.0	15.3
Cycle Q Clear(g_c), s	4.4	0.0	0.0	1.0	0.0	0.0	0.3	0.0	11.8	0.1	0.0	15.3
Prop In Lane	0.76		0.22	0.18		0.55	1.00		0.01	1.00		0.10
Lane Grp Cap(c), veh/h	212	0	0	194	0	0	484	0	1439	619	0	1543
V/C Ratio(X)	0.41	0.00	0.00	0.11	0.00	0.00	0.05	0.00	0.45	0.01	0.00	0.53
Avail Cap(c_a), veh/h	519	0	0	512	0	0	653	0	1439	825	0	1543
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.90	0.00	0.90	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.5	0.0	0.0	38.1	0.0	0.0	4.3	0.0	4.5	3.8	0.0	5.3
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.9	0.0	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	0.0	0.5	0.0	0.0	0.1	0.0	3.9	0.0	0.0	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.0	0.0	0.0	38.2	0.0	0.0	4.3	0.0	5.5	3.8	0.0	6.6
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		86			22			677			827	
Approach Delay, s/veh		40.0			38.2			5.4			6.6	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	71.7		12.7	6.4	70.9		12.7				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	40.0		25.0	10.0	40.0		25.0				
Max Q Clear Time (g_c+I1), s	2.1	13.8		6.4	2.3	17.3		3.0				
Green Ext Time (p_c), s	0.0	1.4		0.1	0.0	2.0		0.0				

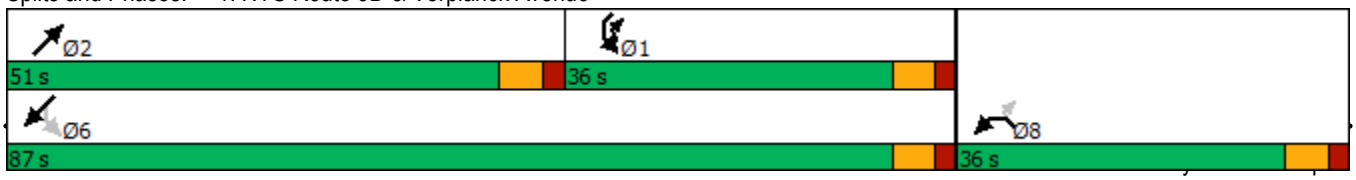
Intersection Summary			
HCM 6th Ctrl Delay		8.3	
HCM 6th LOS		A	

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	68	293	595	54	291	722
Future Volume (vph)	68	293	595	54	291	722
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		1.00			
Frt		0.850	0.989			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1811	0	1778	1854
Flt Permitted	0.950				0.232	
Satd. Flow (perm)	1715	1544	1811	0	434	1854
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	2			1	1	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%
Adj. Flow (vph)	72	308	626	57	306	760
Shared Lane Traffic (%)						
Lane Group Flow (vph)	72	308	683	0	306	760
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.39	0.56	0.75		0.49	0.51
Control Delay	45.7	26.0	27.5		14.1	6.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	45.7	26.0	27.5		14.1	6.1
Queue Length 50th (ft)	40	136	299		37	129
Queue Length 95th (ft)	88	208	#692		100	328
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	595	624	937		847	1640
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.12	0.49	0.73		0.36	0.46

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 89.5	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue





Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	68	293	595	54	291	722	
Future Volume (veh/h)	68	293	595	54	291	722	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1894	
Adj Flow Rate, veh/h	72	308	626	57	306	760	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	3	
Cap, veh/h	224	365	715	65	373	1239	
Arrive On Green	0.14	0.14	0.44	0.44	0.11	0.65	
Sat Flow, veh/h	1641	1460	1641	149	1818	1894	
Grp Volume(v), veh/h	72	308	0	683	306	760	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1790	1818	1894	
Q Serve(g_s), s	2.3	5.0	0.0	20.0	4.0	13.3	
Cycle Q Clear(g_c), s	2.3	5.0	0.0	20.0	4.0	13.3	
Prop In Lane	1.00	1.00		0.08	1.00		
Lane Grp Cap(c), veh/h	224	365	0	781	373	1239	
V/C Ratio(X)	0.32	0.84	0.00	0.88	0.82	0.61	
Avail Cap(c_a), veh/h	859	930	0	1405	1118	2676	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	22.4	20.4	0.0	14.7	23.0	5.7	
Incr Delay (d2), s/veh	0.3	2.1	0.0	3.3	1.7	0.5	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.8	3.7	0.0	7.4	3.8	3.5	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.7	22.5	0.0	18.0	24.7	6.2	
LnGrp LOS	C	C	A	B	C	A	
Approach Vol, veh/h	380		683			1066	
Approach Delay, s/veh	22.5		18.0			11.5	
Approach LOS	C		B			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.5	31.0				43.5	13.8
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	6.0	22.0				15.3	7.0
Green Ext Time (p_c), s	0.6	3.0				3.7	0.9

Intersection Summary			
HCM 6th Ctrl Delay		15.6	
HCM 6th LOS		B	

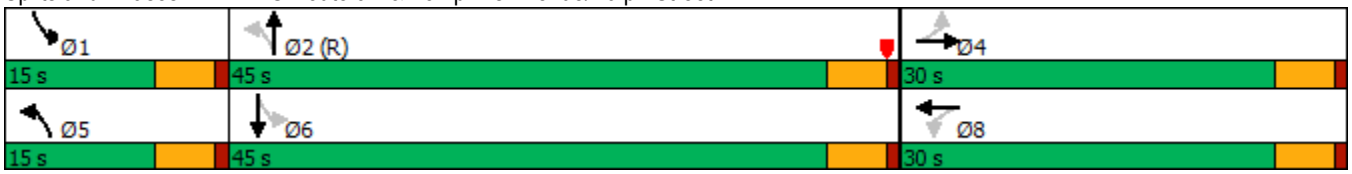
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	85	4	38	9	0	9	20	555	6	2	730	65
Future Volume (vph)	85	4	38	9	0	9	20	555	6	2	730	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.97			1.00		0.99	1.00	
Frt		0.959			0.932			0.998			0.988	
Flt Protected		0.968			0.976		0.950			0.950		
Satd. Flow (prot)	0	1793	0	0	1626	0	1770	1848	0	1814	1897	0
Flt Permitted		0.788			0.883		0.229			0.385		
Satd. Flow (perm)	0	1448	0	0	1455	0	427	1848	0	731	1897	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			85			1			6	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		8	14		12	8		14	12		6
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	4%	13%	2%	2%	2%	6%	2%	2%	4%	11%
Adj. Flow (vph)	89	4	40	9	0	9	21	584	6	2	768	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	18	0	21	590	0	2	836	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Number of Detectors	1	2		1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41		41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1		1	1		1	1	
Detector 2 Size(ft)		40			40		40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

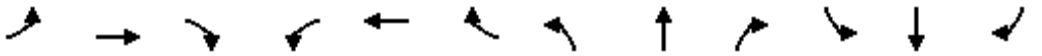
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0		15.0	45.0		15.0	45.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		16.7%	50.0%		16.7%	50.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0		10.0	40.0		10.0	40.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0			8.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0			15.0	
Pedestrian Calls (#/hr)	8	8		12	12			14			6	
v/c Ratio		0.60			0.07		0.06	0.44		0.00	0.62	
Control Delay		39.3			0.5		4.8	6.4		5.0	12.7	
Queue Delay		0.0			0.0		0.0	0.2		0.0	3.1	
Total Delay		39.3			0.5		4.8	6.5		5.0	15.8	
Queue Length 50th (ft)		60			0		2	95		0	158	
Queue Length 95th (ft)		102			0		m11	174		3	#625	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		419			465		469	1348		668	1343	
Starvation Cap Reductn		0			0		0	178		0	0	
Spillback Cap Reductn		4			17		0	0		0	390	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.32			0.04		0.04	0.50		0.00	0.88	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 60
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: NYS Route 9D & Tompkins Avenue/Ralph Street



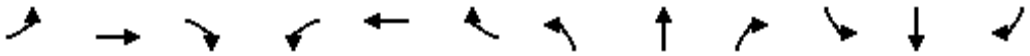


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	85	4	38	9	0	9	20	555	6	2	730	65
Future Volume (veh/h)	85	4	38	9	0	9	20	555	6	2	730	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.95		0.97	0.98		0.95	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2027	2108	1997	1707	1945	1870	1870	1884	1870	2067	2118	1932
Adj Flow Rate, veh/h	89	4	40	9	0	9	21	584	6	2	768	68
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	4	13	2	2	2	6	2	2	4	11
Cap, veh/h	200	21	66	153	19	112	413	1293	13	704	1308	116
Arrive On Green	0.14	0.14	0.14	0.14	0.00	0.14	0.03	1.00	1.00	0.00	0.68	0.68
Sat Flow, veh/h	976	153	486	679	139	818	1781	1861	19	1968	1916	170
Grp Volume(v), veh/h	133	0	0	18	0	0	21	0	590	2	0	836
Grp Sat Flow(s),veh/h/ln	1615	0	0	1636	0	0	1781	0	1880	1968	0	2086
Q Serve(g_s), s	5.9	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.0	19.1
Cycle Q Clear(g_c), s	6.9	0.0	0.0	0.8	0.0	0.0	0.3	0.0	0.0	0.0	0.0	19.1
Prop In Lane	0.67		0.30	0.50		0.50	1.00		0.01	1.00		0.08
Lane Grp Cap(c), veh/h	288	0	0	284	0	0	413	0	1306	704	0	1424
V/C Ratio(X)	0.46	0.00	0.00	0.06	0.00	0.00	0.05	0.00	0.45	0.00	0.00	0.59
Avail Cap(c_a), veh/h	511	0	0	491	0	0	587	0	1306	919	0	1424
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.92	0.00	0.92	1.00	0.00	1.00
Uniform Delay (d), s/veh	36.4	0.0	0.0	33.9	0.0	0.0	6.2	0.0	0.0	4.5	0.0	7.6
Incr Delay (d2), s/veh	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.7	0.0	0.0	0.3	0.0	0.0	0.1	0.0	0.4	0.0	0.0	7.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	36.8	0.0	0.0	33.9	0.0	0.0	6.2	0.0	1.0	4.5	0.0	9.3
LnGrp LOS	D	A	A	C	A	A	A	A	A	A	A	A
Approach Vol, veh/h		133			18			611			838	
Approach Delay, s/veh		36.8			33.9			1.2			9.3	
Approach LOS		D			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.1	67.5		17.3	6.2	66.5		17.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	40.0		25.0	10.0	40.0		25.0				
Max Q Clear Time (g_c+I1), s	2.0	2.0		8.9	2.3	21.1		2.8				
Green Ext Time (p_c), s	0.0	1.3		0.2	0.0	2.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		8.8	
HCM 6th LOS		A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	123	5	63	9	10	17	36	449	3	3	520	254
Future Volume (vph)	123	5	63	9	10	17	36	449	3	3	520	254
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00	0.98		0.98		1.00	1.00		0.99	0.99	
Frt			0.850		0.938			0.999			0.951	
Flt Protected		0.954			0.987		0.950			0.950		
Satd. Flow (prot)	0	1713	1494	0	1785	0	1754	1844	0	1743	1693	0
Flt Permitted		0.954			0.987		0.129			0.429		
Satd. Flow (perm)	0	1710	1459	0	1783	0	238	1844	0	782	1693	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					18						29	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	1		2	2		1	7		14	14		7
Confl. Bikes (#/hr)						1			1			1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	4%	25%	7%	2%	2%	2%	6%	6%	2%	2%	5%	2%
Adj. Flow (vph)	132	5	68	10	11	18	39	483	3	3	559	273
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	137	68	0	39	0	39	486	0	3	832	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

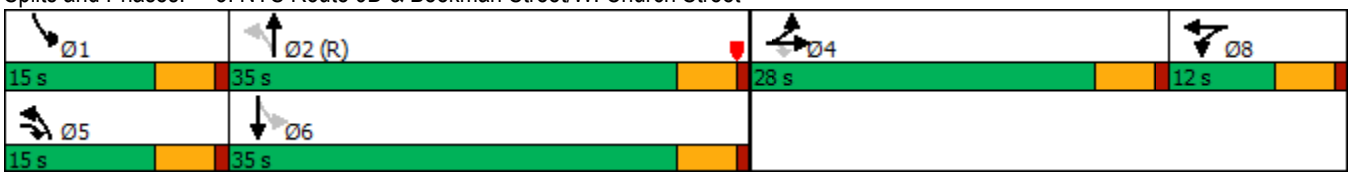


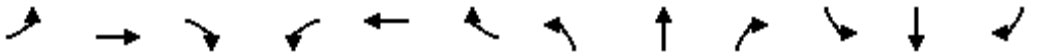
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Split	NA	pm+ov	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	4	4	5	8	8		5	2		1	6	
Permitted Phases			4				2			6		
Detector Phase	4	4	5	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	3.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	8.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	28.0	28.0	15.0	12.0	12.0		15.0	35.0		15.0	35.0	
Total Split (%)	31.1%	31.1%	16.7%	13.3%	13.3%		16.7%	38.9%		16.7%	38.9%	
Maximum Green (s)	23.0	23.0	10.0	7.0	7.0		10.0	30.0		10.0	30.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag			Lead				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	1.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)	8.0	8.0										
Flash Dont Walk (s)	15.0	15.0										
Pedestrian Calls (#/hr)	2	2										
v/c Ratio		0.55	0.24		0.29		0.17	0.41		0.01	0.84	
Control Delay		42.9	20.6		31.4		9.1	9.1		6.7	22.9	
Queue Delay		0.0	0.0		0.0		0.0	0.2		0.0	0.0	
Total Delay		42.9	20.6		31.4		9.1	9.3		6.7	22.9	
Queue Length 50th (ft)		75	26		12		7	93		0	401	
Queue Length 95th (ft)		114	40		42		m19	156		m0	#804	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		437	377		155		327	1194		627	994	
Starvation Cap Reductn		0	0		0		0	199		0	0	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.31	0.18		0.25		0.12	0.49		0.00	0.84	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	123	5	63	9	10	17	36	449	3	3	520	254
Future Volume (veh/h)	123	5	63	9	10	17	36	449	3	3	520	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		0.96	1.00		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1817	1506	1773	2263	2263	2263	2046	2046	2106	1817	1773	1817
Adj Flow Rate, veh/h	132	5	68	10	11	18	39	483	3	3	559	273
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	4	25	7	2	2	2	6	6	2	2	5	2
Cap, veh/h	168	6	212	18	20	32	263	1258	8	524	668	326
Arrive On Green	0.12	0.12	0.12	0.03	0.03	0.03	0.02	0.62	0.62	0.00	0.60	0.60
Sat Flow, veh/h	1384	52	1490	518	569	932	1948	2031	13	1731	1111	543
Grp Volume(v), veh/h	137	0	68	39	0	0	39	0	486	3	0	832
Grp Sat Flow(s),veh/h/ln	1437	0	1490	2019	0	0	1948	0	2043	1731	0	1654
Q Serve(g_s), s	8.3	0.0	3.7	1.7	0.0	0.0	0.7	0.0	10.7	0.1	0.0	36.3
Cycle Q Clear(g_c), s	8.3	0.0	3.7	1.7	0.0	0.0	0.7	0.0	10.7	0.1	0.0	36.3
Prop In Lane	0.96		1.00	0.26		0.46	1.00		0.01	1.00		0.33
Lane Grp Cap(c), veh/h	174	0	212	70	0	0	263	0	1266	524	0	994
V/C Ratio(X)	0.79	0.00	0.32	0.56	0.00	0.00	0.15	0.00	0.38	0.01	0.00	0.84
Avail Cap(c_a), veh/h	367	0	412	157	0	0	439	0	1266	712	0	994
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.91	0.00	0.91	0.74	0.00	0.74
Uniform Delay (d), s/veh	38.4	0.0	34.7	42.8	0.0	0.0	14.3	0.0	8.6	7.5	0.0	14.4
Incr Delay (d2), s/veh	3.0	0.0	0.3	2.6	0.0	0.0	0.1	0.0	0.8	0.0	0.0	6.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.0	0.0	1.3	0.9	0.0	0.0	0.3	0.0	4.5	0.0	0.0	13.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	41.4	0.0	35.0	45.3	0.0	0.0	14.4	0.0	9.4	7.5	0.0	20.7
LnGrp LOS	D	A	D	D	A	A	B	A	A	A	A	C
Approach Vol, veh/h		205			39			525			835	
Approach Delay, s/veh		39.3			45.3			9.7			20.7	
Approach LOS		D			D			A			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	60.8		15.9	6.9	59.1		8.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	30.0		23.0	10.0	30.0		7.0				
Max Q Clear Time (g_c+I1), s	2.1	12.7		10.3	2.7	38.3		3.7				
Green Ext Time (p_c), s	0.0	0.9		0.3	0.0	0.0		0.0				

Intersection Summary		
HCM 6th Ctrl Delay		20.1
HCM 6th LOS		C

Notes

User approved pedestrian interval to be less than phase max green.

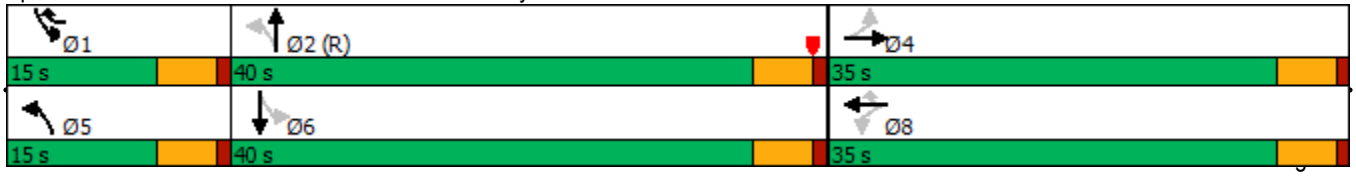
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	5	3	21	7	122	5	362	38	260	336	6
Future Volume (vph)	4	5	3	21	7	122	5	362	38	260	336	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.95		0.99			1.00	
Frt		0.966				0.850		0.986			0.997	
Flt Protected		0.983			0.964		0.950			0.950		
Satd. Flow (prot)	0	1778	0	0	1905	1647	1832	1848	0	1743	1847	0
Flt Permitted		0.907			0.785		0.532			0.362		
Satd. Flow (perm)	0	1641	0	0	1551	1566	1026	1848	0	664	1847	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		5									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			9			15			21			12
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	2%	5%	2%	1%	0%
Adj. Flow (vph)	7	8	5	23	8	134	6	458	48	295	382	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	31	134	6	506	0	295	389	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	1	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

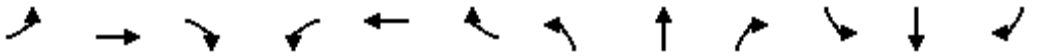
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	35.0	35.0		35.0	35.0	15.0	15.0	40.0		15.0	40.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%	16.7%	16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	30.0	30.0		30.0	30.0	10.0	10.0	35.0		10.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	15	15		15	15			21				
v/c Ratio		0.09			0.14	0.35	0.01	0.44		0.45	0.26	
Control Delay		23.7			31.0	24.8	7.0	15.3		9.0	5.6	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.3	
Total Delay		23.7			31.0	24.8	7.0	15.3		9.0	5.9	
Queue Length 50th (ft)		8			17	63	1	124		16	22	
Queue Length 95th (ft)		15			36	73	5	287		m95	m99	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		550			517	400	838	1143		670	1473	
Starvation Cap Reductn		0			0	0	0	0		0	574	
Spillback Cap Reductn		0			0	0	0	0		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.04			0.06	0.34	0.01	0.44		0.44	0.43	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 45
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	5	3	21	7	122	5	362	38	260	336	6
Future Volume (veh/h)	4	5	3	21	7	122	5	362	38	260	336	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.96		0.94	0.97		0.94	0.99		0.96	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2185	2018	1988	1943	1817	1832	1847
Adj Flow Rate, veh/h	7	8	5	23	8	134	6	458	48	295	382	7
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	2	0	2	5	2	1	0
Cap, veh/h	104	109	53	232	74	383	742	1091	114	639	1246	23
Arrive On Green	0.13	0.13	0.13	0.13	0.13	0.13	0.00	0.62	0.62	0.08	0.69	0.69
Sat Flow, veh/h	376	811	395	1213	550	1748	1922	1762	185	1731	1793	33
Grp Volume(v), veh/h	20	0	0	31	0	134	6	0	506	295	0	389
Grp Sat Flow(s),veh/h/ln	1582	0	0	1762	0	1748	1922	0	1946	1731	0	1826
Q Serve(g_s), s	0.0	0.0	0.0	0.3	0.0	5.9	0.1	0.0	12.0	5.1	0.0	7.4
Cycle Q Clear(g_c), s	0.9	0.0	0.0	1.2	0.0	5.9	0.1	0.0	12.0	5.1	0.0	7.4
Prop In Lane	0.35		0.25	0.74		1.00	1.00		0.09	1.00		0.02
Lane Grp Cap(c), veh/h	266	0	0	306	0	383	742	0	1205	639	0	1268
V/C Ratio(X)	0.08	0.00	0.00	0.10	0.00	0.35	0.01	0.00	0.42	0.46	0.00	0.31
Avail Cap(c_a), veh/h	565	0	0	650	0	731	947	0	1205	692	0	1268
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.51	0.00	0.51
Uniform Delay (d), s/veh	34.1	0.0	0.0	34.2	0.0	30.1	6.4	0.0	8.8	5.9	0.0	5.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.2	0.0	0.0	1.1	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.4	0.0	0.0	0.6	0.0	2.5	0.0	0.0	4.9	1.4	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	34.2	0.0	0.0	34.3	0.0	30.3	6.4	0.0	9.9	6.0	0.0	5.6
LnGrp LOS	C	A	A	C	A	C	A	A	A	A	A	A
Approach Vol, veh/h		20			165			512			684	
Approach Delay, s/veh		34.2			31.0			9.9			5.8	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.2	60.7		17.1	5.4	67.5		17.1				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	35.0		30.0	10.0	35.0		30.0				
Max Q Clear Time (g_c+I1), s	7.1	14.0		2.9	2.1	9.4		7.9				
Green Ext Time (p_c), s	0.1	0.4		0.0	0.0	0.3		0.4				

Intersection Summary			
HCM 6th Ctrl Delay		10.7	
HCM 6th LOS		B	

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	2	2	163	289	0
Future Volume (vph)	2	2	2	163	289	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976			0.999		
Satd. Flow (prot)	1838	0	0	1938	1909	0
Flt Permitted	0.976			0.999		
Satd. Flow (perm)	1838	0	0	1938	1909	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	16	16			14
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%
Adj. Flow (vph)	3	3	3	206	366	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	209	366	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	2	2	163	289	0
Future Vol, veh/h	2	2	2	163	289	0
Conflicting Peds, #/hr	14	16	16	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	4	2	2
Mvmt Flow	3	3	3	206	366	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	608	398	382	0	-	0
Stage 1	382	-	-	-	-	-
Stage 2	226	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	643	728	1176	-	-	-
Stage 1	853	-	-	-	-	-
Stage 2	920	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	623	706	1159	-	-	-
Mov Cap-2 Maneuver	623	-	-	-	-	-
Stage 1	838	-	-	-	-	-
Stage 2	907	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.5	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1159	-	662	-	-
HCM Lane V/C Ratio	0.002	-	0.008	-	-
HCM Control Delay (s)	8.1	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	31	7	5	159	282	17
Future Volume (vph)	31	7	5	159	282	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	16	11	12
Grade (%)	0%			2%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.975				0.992	
Flt Protected	0.961			0.999		
Satd. Flow (prot)	1920	0	0	2049	1786	0
Flt Permitted	0.961			0.999		
Satd. Flow (perm)	1920	0	0	2049	1786	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			216	408	
Travel Time (s)	4.5			4.9	9.3	
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Heavy Vehicles (%)	2%	2%	2%	4%	2%	2%
Adj. Flow (vph)	39	9	6	201	357	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	48	0	0	207	379	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.86	1.04	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	31	7	5	159	282	17
Future Vol, veh/h	31	7	5	159	282	17
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	4	2	2
Mvmt Flow	39	9	6	201	357	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	581	368	379	0	-	0
Stage 1	368	-	-	-	-	-
Stage 2	213	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	476	677	1179	-	-	-
Stage 1	700	-	-	-	-	-
Stage 2	823	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	473	677	1179	-	-	-
Mov Cap-2 Maneuver	473	-	-	-	-	-
Stage 1	696	-	-	-	-	-
Stage 2	823	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	12.9	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1179	-	501	-	-
HCM Lane V/C Ratio	0.005	-	0.096	-	-
HCM Control Delay (s)	8.1	0	12.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	116	0	11	74	0	9
Future Volume (vph)	116	0	11	74	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	13	9	12
Grade (%)	-5%			3%	3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.994		
Satd. Flow (prot)	1973	0	0	1885	1428	0
Flt Permitted				0.994		
Satd. Flow (perm)	1973	0	0	1885	1428	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	341			103	156	
Travel Time (s)	7.8			2.3	3.5	
Peak Hour Factor	0.79	0.79	0.79	0.79	0.79	0.79
Adj. Flow (vph)	147	0	14	94	0	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	147	0	0	108	11	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	9	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.93	0.97	1.02	0.98	1.17	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	116	0	11	74	0	9
Future Vol, veh/h	116	0	11	74	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	3	3	-
Peak Hour Factor	79	79	79	79	79	79
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	147	0	14	94	0	11

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	147	0	269	147
Stage 1	-	-	-	-	147	-
Stage 2	-	-	-	-	122	-
Critical Hdwy	-	-	4.12	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1435	-	689	889
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	885	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1435	-	682	889
Mov Cap-2 Maneuver	-	-	-	-	682	-
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	876	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	9.1
HCM LOS			A

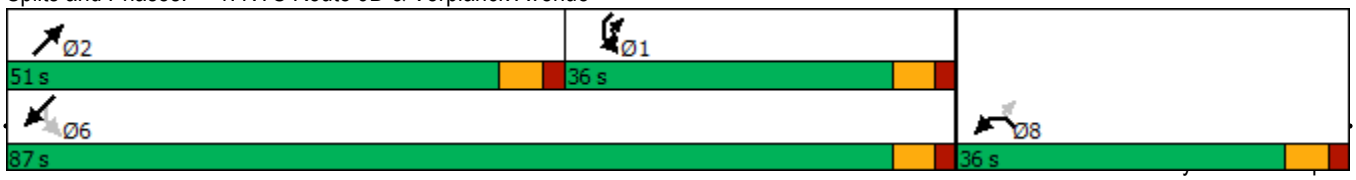
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	889	-	-	1435	-
HCM Lane V/C Ratio	0.013	-	-	0.01	-
HCM Control Delay (s)	9.1	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	71	345	731	61	233	714
Future Volume (vph)	71	345	731	61	233	714
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00		1.00			
Frt		0.850	0.990			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1813	0	1778	1854
Flt Permitted	0.950				0.109	
Satd. Flow (perm)	1720	1544	1813	0	204	1854
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	1			3	3	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	2%	2%	2%	2%	2%	3%
Adj. Flow (vph)	75	363	769	64	245	752
Shared Lane Traffic (%)						
Lane Group Flow (vph)	75	363	833	0	245	752
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	36.0	36.0	51.0		36.0	87.0
Total Split (%)	29.3%	29.3%	41.5%		29.3%	70.7%
Maximum Green (s)	30.0	30.0	45.0		30.0	81.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.41	0.62	0.93		0.46	0.50
Control Delay	48.0	27.6	44.4		21.2	6.0
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	48.0	27.6	44.4		21.2	6.0
Queue Length 50th (ft)	43	168	458		49	129
Queue Length 95th (ft)	92	251	#954		144	320
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	565	639	892		692	1597
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.13	0.57	0.93		0.35	0.47

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 93.4	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
# 95th percentile volume exceeds capacity, queue may be longer.	
Queue shown is maximum after two cycles.	

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue

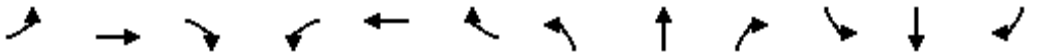




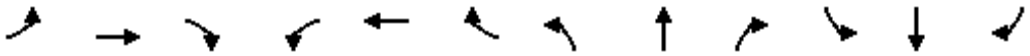
Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	71	345	731	61	233	714	
Future Volume (veh/h)	71	345	731	61	233	714	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1894	
Adj Flow Rate, veh/h	75	363	769	64	245	752	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	
Percent Heavy Veh, %	2	2	2	2	2	3	
Cap, veh/h	292	404	821	68	293	1271	
Arrive On Green	0.18	0.18	0.50	0.50	0.10	0.67	
Sat Flow, veh/h	1641	1460	1654	138	1818	1894	
Grp Volume(v), veh/h	75	363	0	833	245	752	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1792	1818	1894	
Q Serve(g_s), s	3.1	11.1	0.0	34.7	5.4	17.2	
Cycle Q Clear(g_c), s	3.1	11.1	0.0	34.7	5.4	17.2	
Prop In Lane	1.00	1.00		0.08	1.00		
Lane Grp Cap(c), veh/h	292	404	0	889	293	1271	
V/C Ratio(X)	0.26	0.90	0.00	0.94	0.84	0.59	
Avail Cap(c_a), veh/h	621	697	0	1018	802	1936	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	28.1	27.6	0.0	18.8	33.2	7.1	
Incr Delay (d2), s/veh	0.2	4.2	0.0	14.3	2.4	0.4	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	1.2	3.6	0.0	16.3	4.6	5.6	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	28.2	31.8	0.0	33.1	35.7	7.6	
LnGrp LOS	C	C	A	C	D	A	
Approach Vol, veh/h	438		833			997	
Approach Delay, s/veh	31.2		33.1			14.5	
Approach LOS	C		C			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	13.8	45.3				59.2	20.1
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	30.0	45.0				81.0	30.0
Max Q Clear Time (g_c+I1), s	7.4	36.7				19.2	13.1
Green Ext Time (p_c), s	0.5	2.6				3.7	1.0

Intersection Summary		
HCM 6th Ctrl Delay		24.6
HCM 6th LOS		C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	63	6	19	7	4	5	27	721	6	6	660	100
Future Volume (vph)	63	6	19	7	4	5	27	721	6	6	660	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99			0.99			1.00			1.00	
Frt		0.970			0.960			0.999			0.980	
Flt Protected		0.966			0.977		0.950			0.950		
Satd. Flow (prot)	0	1829	0	0	1681	0	1770	1923	0	1814	1910	0
Flt Permitted		0.779			0.889		0.241			0.287		
Satd. Flow (perm)	0	1467	0	0	1527	0	449	1923	0	548	1910	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			5			1			11	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	4		4	2		2	4		2	2		4
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	25%	2%	2%	2%	2%	3%	2%
Adj. Flow (vph)	68	7	21	8	4	5	29	784	7	7	717	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	96	0	0	17	0	29	791	0	7	826	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	60		60	60		60	60		60	60		60
Number of Detectors	1	2		1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41		41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1		1	1		1	1	
Detector 2 Size(ft)		40			40		40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

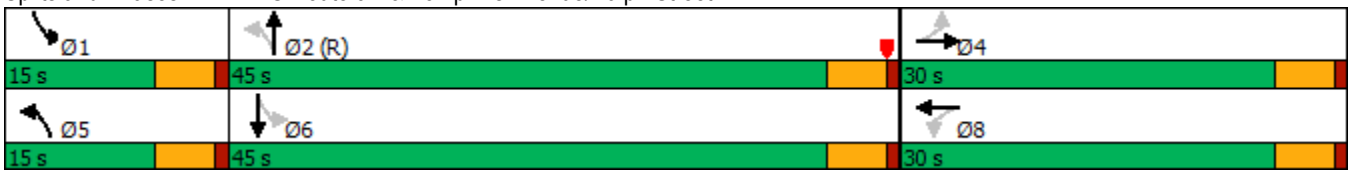


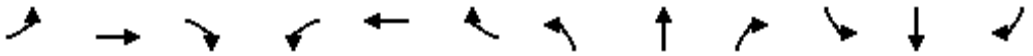
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0		15.0	45.0		15.0	45.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		16.7%	50.0%		16.7%	50.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0		10.0	40.0		10.0	40.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0			8.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0			15.0	
Pedestrian Calls (#/hr)	8	8		12	12			14			6	
v/c Ratio		0.49			0.09		0.07	0.53		0.02	0.59	
Control Delay		36.7			25.6		4.1	9.9		4.7	12.0	
Queue Delay		0.4			0.1		0.0	0.8		0.0	21.9	
Total Delay		37.1			25.7		4.1	10.6		4.7	34.0	
Queue Length 50th (ft)		44			6		2	71		1	223	
Queue Length 95th (ft)		77			21		m10	602		6	#566	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		419			427		499	1494		571	1405	
Starvation Cap Reductn		0			0		0	382		0	0	
Spillback Cap Reductn		101			100		0	0		0	595	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.30			0.05		0.06	0.71		0.01	1.02	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: NYS Route 9D & Tompkins Avenue/Ralph Street



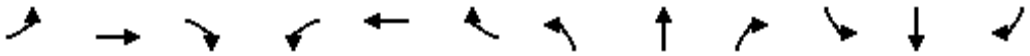


Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	63	6	19	7	4	5	27	721	6	6	660	100
Future Volume (veh/h)	63	6	19	7	4	5	27	721	6	6	660	100
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.98	0.98		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2027	2108	2027	1870	1945	1530	1870	1945	1870	2067	2134	2067
Adj Flow Rate, veh/h	68	7	21	8	4	5	29	784	7	7	717	109
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	25	2	2	2	2	3	2
Cap, veh/h	166	16	32	111	56	45	476	1426	13	516	1318	200
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.02	0.74	0.74	0.01	0.73	0.73
Sat Flow, veh/h	1118	188	366	600	642	517	1781	1925	17	1968	1808	275
Grp Volume(v), veh/h	96	0	0	17	0	0	29	0	791	7	0	826
Grp Sat Flow(s),veh/h/ln	1672	0	0	1759	0	0	1781	0	1942	1968	0	2083
Q Serve(g_s), s	4.2	0.0	0.0	0.0	0.0	0.0	0.4	0.0	16.0	0.1	0.0	16.0
Cycle Q Clear(g_c), s	4.9	0.0	0.0	0.8	0.0	0.0	0.4	0.0	16.0	0.1	0.0	16.0
Prop In Lane	0.71		0.22	0.47		0.29	1.00		0.01	1.00		0.13
Lane Grp Cap(c), veh/h	214	0	0	212	0	0	476	0	1438	516	0	1518
V/C Ratio(X)	0.45	0.00	0.00	0.08	0.00	0.00	0.06	0.00	0.55	0.01	0.00	0.54
Avail Cap(c_a), veh/h	526	0	0	513	0	0	643	0	1438	725	0	1518
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.90	0.00	0.90	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.7	0.0	0.0	37.8	0.0	0.0	4.4	0.0	5.1	4.4	0.0	5.5
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.4	0.0	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	0.0	0.0	0.3	0.0	0.0	0.1	0.0	5.4	0.0	0.0	5.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.2	0.0	0.0	37.9	0.0	0.0	4.5	0.0	6.5	4.5	0.0	6.9
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		96			17			820			833	
Approach Delay, s/veh		40.2			37.9			6.4			6.9	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	71.7		12.9	6.5	70.6		12.9				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	40.0		25.0	10.0	40.0		25.0				
Max Q Clear Time (g_c+I1), s	2.1	18.0		6.9	2.4	18.0		2.8				
Green Ext Time (p_c), s	0.0	1.8		0.1	0.0	2.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		8.8	
HCM 6th LOS		A	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	308	13	62	2	8	16	73	430	13	5	531	150
Future Volume (vph)	308	13	62	2	8	16	73	430	13	5	531	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00			0.98		1.00	1.00		1.00	0.99	
Frt			0.850		0.918			0.996			0.967	
Flt Protected		0.954			0.996		0.950			0.950		
Satd. Flow (prot)	0	1759	1567	0	1748	0	1690	1892	0	1743	1749	0
Flt Permitted		0.954			0.996		0.109			0.405		
Satd. Flow (perm)	0	1753	1567	0	1748	0	194	1892	0	742	1749	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					17			2			17	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	2					2	6		2	2		6
Confl. Bikes (#/hr)						1			1			1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	10%	3%	2%	2%	3%	2%
Adj. Flow (vph)	335	14	67	2	9	17	79	467	14	5	577	163
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	349	67	0	28	0	79	481	0	5	740	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

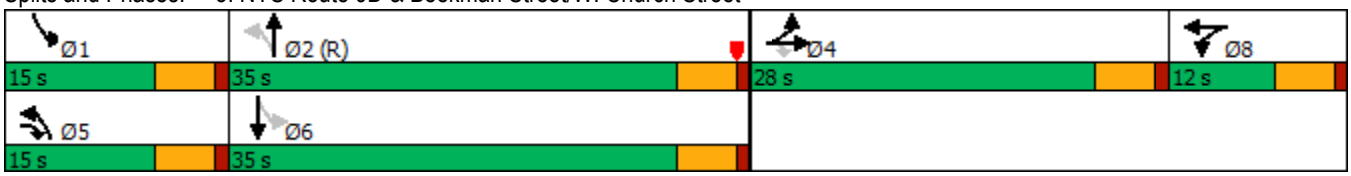


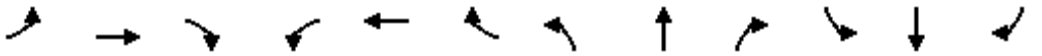
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Split	NA	pm+ov	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	4	4	5	8	8		5	2		1	6	
Permitted Phases			4				2			6		
Detector Phase	4	4	5	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	3.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	8.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	28.0	28.0	15.0	12.0	12.0		15.0	35.0		15.0	35.0	
Total Split (%)	31.1%	31.1%	16.7%	13.3%	13.3%		16.7%	38.9%		16.7%	38.9%	
Maximum Green (s)	23.0	23.0	10.0	7.0	7.0		10.0	30.0		10.0	30.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag			Lead				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	1.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)	8.0	8.0										
Flash Dont Walk (s)	15.0	15.0										
Pedestrian Calls (#/hr)	2	2										
v/c Ratio		0.86	0.13		0.22		0.37	0.43		0.01	0.83	
Control Delay		54.3	15.5		28.1		13.8	15.6		16.0	38.8	
Queue Delay		4.8	0.0		0.0		0.0	0.9		0.0	51.0	
Total Delay		59.2	15.5		28.1		13.8	16.4		16.0	89.8	
Queue Length 50th (ft)		185	25		6		22	156		2	410	
Queue Length 95th (ft)		#316	37		32		43	384		m3	#751	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		449	587		151		283	1109		553	896	
Starvation Cap Reductn		0	0		0		0	355		0	332	
Spillback Cap Reductn		54	65		1		0	99		0	7	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.88	0.13		0.19		0.28	0.64		0.01	1.31	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 40 (44%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	308	13	62	2	8	16	73	430	13	5	531	150
Future Volume (veh/h)	308	13	62	2	8	16	73	430	13	5	531	150
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		0.96	1.00		0.97	1.00		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2263	2263	2263	1986	2091	2106	1817	1803	1817
Adj Flow Rate, veh/h	335	14	67	2	9	17	79	467	14	5	577	163
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	2	2	2	2	10	3	2	2	3	2
Cap, veh/h	372	16	401	4	18	34	234	1061	32	426	662	187
Arrive On Green	0.22	0.22	0.22	0.03	0.03	0.03	0.04	0.53	0.53	0.00	0.49	0.49
Sat Flow, veh/h	1692	71	1558	141	635	1199	1891	2018	60	1731	1343	379
Grp Volume(v), veh/h	349	0	67	28	0	0	79	0	481	5	0	740
Grp Sat Flow(s),veh/h/ln	1762	0	1558	1975	0	0	1891	0	2078	1731	0	1722
Q Serve(g_s), s	17.3	0.0	3.0	1.3	0.0	0.0	1.8	0.0	12.8	0.1	0.0	34.4
Cycle Q Clear(g_c), s	17.3	0.0	3.0	1.3	0.0	0.0	1.8	0.0	12.8	0.1	0.0	34.4
Prop In Lane	0.96		1.00	0.07		0.61	1.00		0.03	1.00		0.22
Lane Grp Cap(c), veh/h	388	0	401	55	0	0	234	0	1093	426	0	849
V/C Ratio(X)	0.90	0.00	0.17	0.51	0.00	0.00	0.34	0.00	0.44	0.01	0.00	0.87
Avail Cap(c_a), veh/h	450	0	456	154	0	0	375	0	1093	612	0	849
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.87	0.00	0.87	0.78	0.00	0.78
Uniform Delay (d), s/veh	34.1	0.0	26.0	43.1	0.0	0.0	17.7	0.0	13.2	12.0	0.0	20.3
Incr Delay (d2), s/veh	17.7	0.0	0.1	2.7	0.0	0.0	0.3	0.0	1.1	0.0	0.0	9.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	9.1	0.0	1.1	0.6	0.0	0.0	0.7	0.0	6.0	0.0	0.0	15.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.8	0.0	26.0	45.8	0.0	0.0	18.0	0.0	14.3	12.0	0.0	29.9
LnGrp LOS	D	A	C	D	A	A	B	A	B	B	A	C
Approach Vol, veh/h		416			28			560			745	
Approach Delay, s/veh		47.7			45.8			14.8			29.8	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	52.3		24.8	8.3	49.4		7.5				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	30.0		23.0	10.0	30.0		7.0				
Max Q Clear Time (g_c+I1), s	2.1	14.8		19.3	3.8	36.4		3.3				
Green Ext Time (p_c), s	0.0	0.9		0.4	0.0	0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		29.5	
HCM 6th LOS		C	

Notes

User approved pedestrian interval to be less than phase max green.

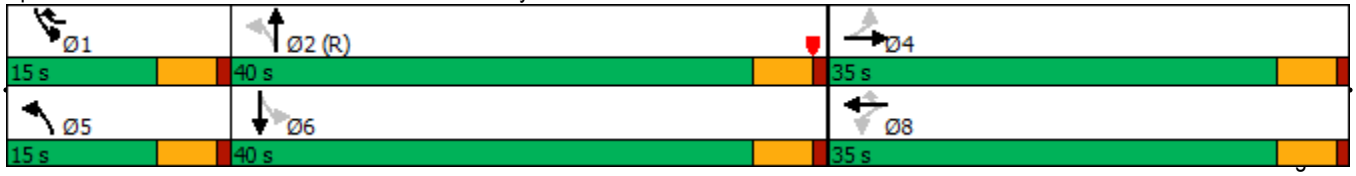
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	8	2	50	2	184	2	329	80	257	347	0
Future Volume (vph)	2	8	2	50	2	184	2	329	80	257	347	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.99				0.95		0.99				
Frt		0.979				0.850		0.971				
Flt Protected		0.992			0.954		0.950			0.950		
Satd. Flow (prot)	0	1825	0	0	1885	1647	1832	1804	0	1743	1853	0
Flt Permitted		0.961			0.720		0.529			0.344		
Satd. Flow (perm)	0	1768	0	0	1423	1566	1020	1804	0	631	1853	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		3										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			9			15			21			12
Confl. Bikes (#/hr)			1						1			
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Heavy Vehicles (%)	0%	0%	0%	0%	0%	2%	0%	2%	5%	2%	1%	0%
Adj. Flow (vph)	3	13	3	55	2	202	3	416	101	292	394	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	0	57	202	3	517	0	292	394	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	1	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

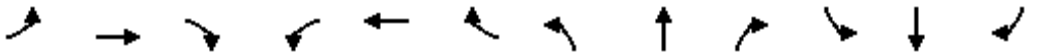
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	35.0	35.0		35.0	35.0	15.0	15.0	40.0		15.0	40.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%	16.7%	16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	30.0	30.0		30.0	30.0	10.0	10.0	35.0		10.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	15	15		15	15			21				
v/c Ratio		0.07			0.28	0.49	0.00	0.49		0.47	0.28	
Control Delay		25.3			33.9	26.6	7.0	17.0		9.0	10.7	
Queue Delay		0.0			0.0	0.9	0.0	0.0		0.0	0.9	
Total Delay		25.3			33.9	27.5	7.0	17.1		9.0	11.6	
Queue Length 50th (ft)		9			31	97	0	138		65	103	
Queue Length 95th (ft)		15			57	106	3	301		m140	m289	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		591			474	431	800	1055		632	1403	
Starvation Cap Reductn		0			0	0	0	0		0	722	
Spillback Cap Reductn		0			0	77	0	9		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.03			0.12	0.57	0.00	0.49		0.46	0.58	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 45
Control Type: Actuated-Coordinated
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	8	2	50	2	184	2	329	80	257	347	0
Future Volume (veh/h)	2	8	2	50	2	184	2	329	80	257	347	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.97		0.95	0.97		0.95	0.99		0.96	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2185	2018	1988	1943	1817	1832	1847
Adj Flow Rate, veh/h	3	13	3	55	2	202	3	416	101	292	394	0
Peak Hour Factor	0.60	0.60	0.60	0.91	0.91	0.91	0.79	0.79	0.79	0.88	0.88	0.88
Percent Heavy Veh, %	0	0	0	0	0	2	0	2	5	2	1	0
Cap, veh/h	66	216	44	332	11	440	701	901	219	599	1229	0
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.00	0.59	0.59	0.08	0.67	0.00
Sat Flow, veh/h	125	1347	276	1582	69	1765	1922	1532	372	1731	1832	0
Grp Volume(v), veh/h	19	0	0	57	0	202	3	0	517	292	394	0
Grp Sat Flow(s),veh/h/ln	1748	0	0	1650	0	1765	1922	0	1904	1731	1832	0
Q Serve(g_s), s	0.0	0.0	0.0	1.7	0.0	8.8	0.1	0.0	13.8	5.6	8.1	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	2.5	0.0	8.8	0.1	0.0	13.8	5.6	8.1	0.0
Prop In Lane	0.16		0.16	0.96		1.00	1.00		0.20	1.00		0.00
Lane Grp Cap(c), veh/h	326	0	0	343	0	440	701	0	1120	599	1229	0
V/C Ratio(X)	0.06	0.00	0.00	0.17	0.00	0.46	0.00	0.00	0.46	0.49	0.32	0.00
Avail Cap(c_a), veh/h	614	0	0	624	0	745	910	0	1120	645	1229	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.55	0.55	0.00
Uniform Delay (d), s/veh	32.1	0.0	0.0	32.7	0.0	29.0	7.5	0.0	10.5	7.1	6.2	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0	1.4	0.1	0.4	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.3	0.0	0.0	1.1	0.0	3.7	0.0	0.0	5.7	1.7	2.8	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	32.1	0.0	0.0	32.8	0.0	29.2	7.6	0.0	11.8	7.3	6.6	0.0
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		19			259			520			686	
Approach Delay, s/veh		32.1			30.0			11.8			6.9	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	58.0		19.4	5.2	65.4		19.4				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	35.0		30.0	10.0	35.0		30.0				
Max Q Clear Time (g_c+I1), s	7.6	15.8		2.8	2.1	10.1		10.8				
Green Ext Time (p_c), s	0.1	0.4		0.0	0.0	0.3		0.6				

Intersection Summary												
HCM 6th Ctrl Delay			13.0									
HCM 6th LOS			B									

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	3	7	0	346	205	3
Future Volume (vph)	3	7	0	346	205	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.904				0.998	
Flt Protected	0.986					
Satd. Flow (prot)	1801	0	0	1977	1869	0
Flt Permitted	0.986					
Satd. Flow (perm)	1801	0	0	1977	1869	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	8	8			14
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	4	10	0	487	289	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	0	0	487	293	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	0.2

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	3	7	0	346	205	3
Future Vol, veh/h	3	7	0	346	205	3
Conflicting Peds, #/hr	14	8	8	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	4	2
Mvmt Flow	4	10	0	487	289	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	806	313	307	0	-	0
Stage 1	305	-	-	-	-	-
Stage 2	501	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	550	793	1254	-	-	-
Stage 1	886	-	-	-	-	-
Stage 2	804	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	536	777	1238	-	-	-
Mov Cap-2 Maneuver	536	-	-	-	-	-
Stage 1	874	-	-	-	-	-
Stage 2	794	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.4	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1238	-	685	-	-
HCM Lane V/C Ratio	-	-	0.021	-	-
HCM Control Delay (s)	0	-	10.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	43	9	9	339	198	31
Future Volume (vph)	43	9	9	339	198	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	16	11	12
Grade (%)	0%			2%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.976				0.982	
Flt Protected	0.960			0.999		
Satd. Flow (prot)	1920	0	0	2088	1739	0
Flt Permitted	0.960			0.999		
Satd. Flow (perm)	1920	0	0	2088	1739	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			216	408	
Travel Time (s)	4.5			4.9	9.3	
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Heavy Vehicles (%)	2%	2%	2%	2%	4%	2%
Adj. Flow (vph)	61	13	13	477	279	44
Shared Lane Traffic (%)						
Lane Group Flow (vph)	74	0	0	490	323	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.86	1.04	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.5

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	43	9	9	339	198	31
Future Vol, veh/h	43	9	9	339	198	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	4	2
Mvmt Flow	61	13	13	477	279	44

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	804	301	323	0	-	0
Stage 1	301	-	-	-	-	-
Stage 2	503	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	352	739	1237	-	-	-
Stage 1	751	-	-	-	-	-
Stage 2	607	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	347	739	1237	-	-	-
Mov Cap-2 Maneuver	347	-	-	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	607	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	16.6	0.2	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1237	-	382	-	-
HCM Lane V/C Ratio	0.01	-	0.192	-	-
HCM Control Delay (s)	7.9	0	16.6	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.7	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	77	0	19	111	0	10
Future Volume (vph)	77	0	19	111	0	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	13	9	12
Grade (%)	-5%			3%	3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.993		
Satd. Flow (prot)	1973	0	0	1883	1428	0
Flt Permitted				0.993		
Satd. Flow (perm)	1973	0	0	1883	1428	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	341			103	156	
Travel Time (s)	7.8			2.3	3.5	
Peak Hour Factor	0.71	0.71	0.71	0.71	0.71	0.71
Adj. Flow (vph)	108	0	27	156	0	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	0	183	14	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	9	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.93	0.97	1.02	0.98	1.17	1.02
Turning Speed (mph)		9	15		15	9
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1.1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	77	0	19	111	0	10
Future Vol, veh/h	77	0	19	111	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	3	3	-
Peak Hour Factor	71	71	71	71	71	71
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	108	0	27	156	0	14

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	108	0	318	108
Stage 1	-	-	-	-	108	-
Stage 2	-	-	-	-	210	-
Critical Hdwy	-	-	4.12	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1483	-	640	937
Stage 1	-	-	-	-	900	-
Stage 2	-	-	-	-	797	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1483	-	627	937
Mov Cap-2 Maneuver	-	-	-	-	627	-
Stage 1	-	-	-	-	900	-
Stage 2	-	-	-	-	781	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	8.9
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	937	-	-	1483	-
HCM Lane V/C Ratio	0.015	-	-	0.018	-
HCM Control Delay (s)	8.9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	-

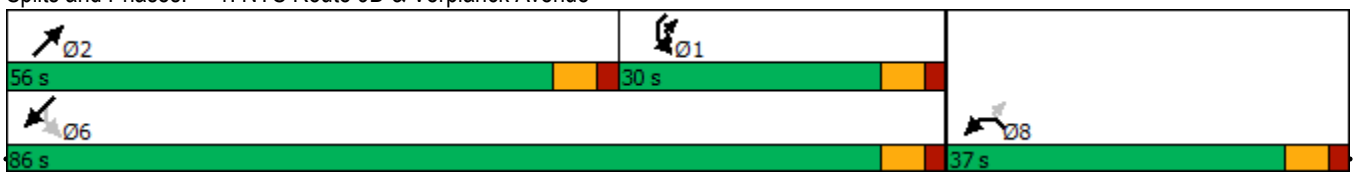
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	55	287	647	46	217	745
Future Volume (vph)	55	287	647	46	217	745
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.98		1.00			
Frt		0.850	0.991			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1816	0	1778	1872
Flt Permitted	0.950				0.195	
Satd. Flow (perm)	1688	1544	1816	0	365	1872
Right Turn on Red		No		No		
Satd. Flow (RTOR)						
Link Speed (mph)	30		30			30
Link Distance (ft)	427		462			529
Travel Time (s)	9.7		10.5			12.0
Confl. Peds. (#/hr)	7			1	1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	60	312	703	50	236	810
Shared Lane Traffic (%)						
Lane Group Flow (vph)	60	312	753	0	236	810
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane			Yes			
Headway Factor	1.03	1.03	1.02	1.02	0.99	0.99
Turning Speed (mph)	15	9		9	15	
Number of Detectors	2	2	2		2	2
Detector Template						
Leading Detector (ft)	41	41	41		41	41
Trailing Detector (ft)	-7	-7	-7		-7	-7
Detector 1 Position(ft)	-7	-7	-7		-7	-7
Detector 1 Size(ft)	6	6	6		6	6
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 1 Channel						
Detector 1 Extend (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0		0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0		0.0	0.0
Detector 2 Position(ft)	1	1	1		1	1
Detector 2 Size(ft)	40	40	40		40	40
Detector 2 Type	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex
Detector 2 Channel						
Detector 2 Extend (s)	0.0	0.0	0.0		0.0	0.0

Lane Group	NWL	NWR	NET	NER	SWL	SWT
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	
Detector Phase	8	1	2		1	6
Switch Phase						
Minimum Initial (s)	3.0	3.0	15.0		3.0	15.0
Minimum Split (s)	9.0	9.0	21.0		9.0	21.0
Total Split (s)	37.0	30.0	56.0		30.0	86.0
Total Split (%)	30.1%	24.4%	45.5%		24.4%	69.9%
Maximum Green (s)	31.0	24.0	50.0		24.0	80.0
Yellow Time (s)	4.0	4.0	4.0		4.0	4.0
All-Red Time (s)	2.0	2.0	2.0		2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0
Lead/Lag		Lag	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Vehicle Extension (s)	2.0	2.0	3.0		2.0	3.0
Recall Mode	None	None	Min		None	Min
Walk Time (s)	7.0		7.0			
Flash Dont Walk (s)	13.0		21.0			
Pedestrian Calls (#/hr)	2		2			
v/c Ratio	0.35	0.59	0.79		0.40	0.53
Control Delay	47.3	29.4	28.5		12.6	6.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay	47.3	29.4	28.5		12.6	6.1
Queue Length 50th (ft)	36	152	360		26	138
Queue Length 95th (ft)	76	231	#754		76	362
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	585	551	994		678	1576
Starvation Cap Reductn	0	0	0		0	0
Spillback Cap Reductn	0	0	0		0	0
Storage Cap Reductn	0	0	0		0	0
Reduced v/c Ratio	0.10	0.57	0.76		0.35	0.51

Intersection Summary

Area Type: Other
Cycle Length: 123
Actuated Cycle Length: 93.9
Natural Cycle: 60
Control Type: Actuated-Uncoordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 1: NYS Route 9D & Verplanck Avenue

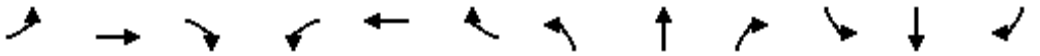




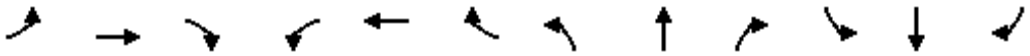
Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	55	287	647	46	217	745	
Future Volume (veh/h)	55	287	647	46	217	745	
Initial Q (Qb), veh	0	0	0	0	0	0	
Ped-Bike Adj(A_pbT)	1.00	1.00		1.00	1.00		
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	
Work Zone On Approach	No		No			No	
Adj Sat Flow, veh/h/ln	1723	1723	1817	1817	1909	1909	
Adj Flow Rate, veh/h	60	312	703	50	236	810	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Percent Heavy Veh, %	2	2	2	2	2	2	
Cap, veh/h	280	363	786	56	294	1224	
Arrive On Green	0.17	0.17	0.47	0.47	0.08	0.64	
Sat Flow, veh/h	1641	1460	1676	119	1818	1909	
Grp Volume(v), veh/h	60	312	0	753	236	810	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1796	1818	1909	
Q Serve(g_s), s	2.0	8.0	0.0	24.4	2.6	16.8	
Cycle Q Clear(g_c), s	2.0	8.0	0.0	24.4	2.6	16.8	
Prop In Lane	1.00	1.00		0.07	1.00		
Lane Grp Cap(c), veh/h	280	363	0	842	294	1224	
V/C Ratio(X)	0.21	0.86	0.00	0.89	0.80	0.66	
Avail Cap(c_a), veh/h	798	824	0	1409	837	2396	
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	
Uniform Delay (d), s/veh	22.8	22.9	0.0	15.5	27.2	7.1	
Incr Delay (d2), s/veh	0.1	2.4	0.0	4.5	1.9	0.6	
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	
%ile BackOfQ(50%),veh/ln	0.7	0.2	0.0	9.5	3.4	5.1	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d),s/veh	22.9	25.2	0.0	19.9	29.1	7.7	
LnGrp LOS	C	C	A	B	C	A	
Approach Vol, veh/h	372		753			1046	
Approach Delay, s/veh	24.9		19.9			12.6	
Approach LOS	C		B			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	11.0	35.9				46.9	16.9
Change Period (Y+Rc), s	6.0	6.0				6.0	6.0
Max Green Setting (Gmax), s	24.0	50.0				80.0	31.0
Max Q Clear Time (g_c+I1), s	4.6	26.4				18.8	10.0
Green Ext Time (p_c), s	0.4	3.5				4.1	0.8

Intersection Summary	
HCM 6th Ctrl Delay	17.2
HCM 6th LOS	B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	2	18	4	6	11	24	621	5	8	696	97
Future Volume (vph)	70	2	18	4	6	11	24	621	5	8	696	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	13	12	12	13	12	12	13	12
Grade (%)		-4%			0%			0%			-5%	
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98			0.99			1.00			1.00	
Frt		0.973			0.926			0.999			0.982	
Flt Protected		0.963			0.991		0.950			0.950		
Satd. Flow (prot)	0	1814	0	0	1743	0	1770	1923	0	1814	1930	0
Flt Permitted		0.759			0.942		0.240			0.349		
Satd. Flow (perm)	0	1417	0	0	1656	0	447	1923	0	666	1930	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		14			12			1			10	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		103			662			335			490	
Travel Time (s)		2.3			15.0			7.6			11.1	
Confl. Peds. (#/hr)	6		6	2		2	6		2	2		6
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Adj. Flow (vph)	74	2	19	4	6	12	26	661	5	9	740	103
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	95	0	0	22	0	26	666	0	9	843	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane											Yes	
Headway Factor	0.97	0.93	0.97	1.00	0.96	1.00	1.00	0.96	1.00	0.97	0.93	0.97
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41		41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1		1	1		1	1	
Detector 2 Size(ft)		40			40		40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	

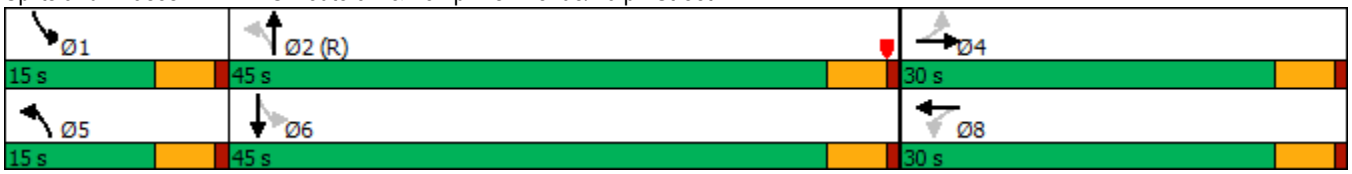


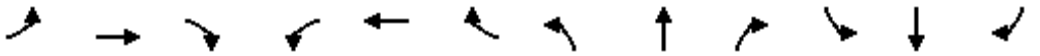
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	30.0	30.0		30.0	30.0		15.0	45.0		15.0	45.0	
Total Split (%)	33.3%	33.3%		33.3%	33.3%		16.7%	50.0%		16.7%	50.0%	
Maximum Green (s)	25.0	25.0		25.0	25.0		10.0	40.0		10.0	40.0	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None		None	None		None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0			8.0	
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0			15.0	
Pedestrian Calls (#/hr)	8	8		12	12			14			6	
v/c Ratio		0.50			0.10		0.06	0.45		0.02	0.58	
Control Delay		38.0			20.7		4.4	6.0		4.6	11.2	
Queue Delay		0.0			0.0		0.0	0.2		0.0	0.7	
Total Delay		38.0			20.7		4.4	6.3		4.6	11.8	
Queue Length 50th (ft)		44			5		1	117		1	139	
Queue Length 95th (ft)		78			23		m14	208		7	#583	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		403			468		497	1490		650	1456	
Starvation Cap Reductn		0			0		0	252		0	0	
Spillback Cap Reductn		1			0		0	0		0	282	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.24			0.05		0.05	0.54		0.01	0.72	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: NYS Route 9D & Tompkins Avenue/Ralph Street

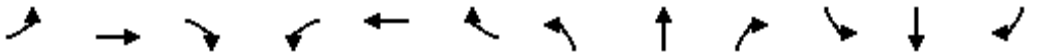




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	2	18	4	6	11	24	621	5	8	696	97
Future Volume (veh/h)	70	2	18	4	6	11	24	621	5	8	696	97
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.97	0.98		0.99	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	2012	2108	2027	1870	1945	1870	1870	1945	1870	2067	2149	2067
Adj Flow Rate, veh/h	74	2	19	4	6	12	26	661	5	9	740	103
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	3	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	183	9	30	59	60	86	462	1417	11	710	1339	186
Arrive On Green	0.09	0.09	0.09	0.09	0.09	0.09	0.03	1.00	1.00	0.01	0.73	0.73
Sat Flow, veh/h	1224	96	330	129	653	939	1781	1928	15	1968	1845	257
Grp Volume(v), veh/h	95	0	0	22	0	0	26	0	666	9	0	843
Grp Sat Flow(s),veh/h/ln	1650	0	0	1721	0	0	1781	0	1942	1968	0	2102
Q Serve(g_s), s	3.8	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.1	0.0	16.5
Cycle Q Clear(g_c), s	4.9	0.0	0.0	1.0	0.0	0.0	0.3	0.0	0.0	0.1	0.0	16.5
Prop In Lane	0.78		0.20	0.18		0.55	1.00		0.01	1.00		0.12
Lane Grp Cap(c), veh/h	222	0	0	205	0	0	462	0	1428	710	0	1526
V/C Ratio(X)	0.43	0.00	0.00	0.11	0.00	0.00	0.06	0.00	0.47	0.01	0.00	0.55
Avail Cap(c_a), veh/h	520	0	0	514	0	0	632	0	1428	915	0	1526
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	0.00	0.91	0.00	0.91	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.3	0.0	0.0	37.6	0.0	0.0	4.5	0.0	0.0	3.2	0.0	5.6
Incr Delay (d2), s/veh	0.5	0.0	0.0	0.1	0.0	0.0	0.0	0.0	1.0	0.0	0.0	1.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.0	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.4	0.0	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	39.8	0.0	0.0	37.7	0.0	0.0	4.6	0.0	1.0	3.2	0.0	7.1
LnGrp LOS	D	A	A	D	A	A	A	A	A	A	A	A
Approach Vol, veh/h		95			22			692			852	
Approach Delay, s/veh		39.8			37.7			1.1			7.0	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	71.2		13.2	6.4	70.3		13.2				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	40.0		25.0	10.0	40.0		25.0				
Max Q Clear Time (g_c+I1), s	2.1	2.0		6.9	2.3	18.5		3.0				
Green Ext Time (p_c), s	0.0	1.5		0.1	0.0	2.1		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		6.9	
HCM 6th LOS		A	



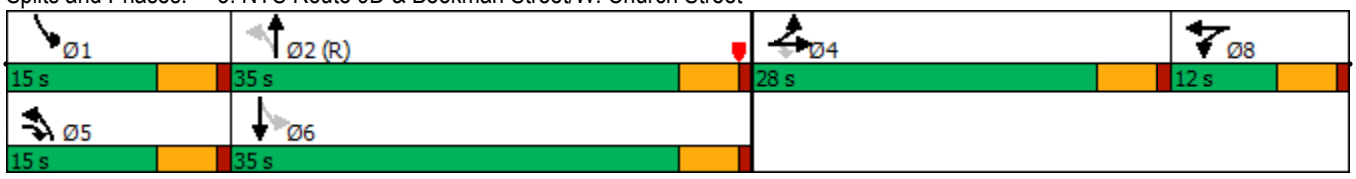
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	163	6	68	10	4	8	103	470	4	8	512	197
Future Volume (vph)	163	6	68	10	4	8	103	470	4	8	512	197
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-6%			3%	
Storage Length (ft)	0		95	0		0	75		0	75		0
Storage Lanes	0		1	0		0	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98	0.97		0.96		1.00	1.00		1.00	0.99	
Frt			0.850		0.949			0.999			0.958	
Flt Protected		0.954			0.978		0.950			0.950		
Satd. Flow (prot)	0	1759	1567	0	1755	0	1823	1916	0	1743	1744	0
Flt Permitted		0.954			0.978		0.119			0.407		
Satd. Flow (perm)	0	1724	1522	0	1751	0	228	1916	0	744	1744	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					9						23	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		408			328			388			335	
Travel Time (s)		9.3			7.5			8.8			7.6	
Confl. Peds. (#/hr)	11		3	3		11	6		9	9		6
Confl. Bikes (#/hr)			3									
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	183	7	76	11	4	9	116	528	4	9	575	221
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	190	76	0	24	0	116	532	0	9	796	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.01	1.01	1.01	0.94	0.94	0.94	0.96	0.96	0.96	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	2	1	2		2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41	41	20	41		41	41		41	41	
Trailing Detector (ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Position(ft)	0	-7	-7	0	-7		-7	-7		-7	-7	
Detector 1 Size(ft)	20	6	6	20	6		6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1	1		1		1	1		1	1	
Detector 2 Size(ft)		40	40		40		40	40		40	40	
Detector 2 Type		Cl+Ex	Cl+Ex		Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												

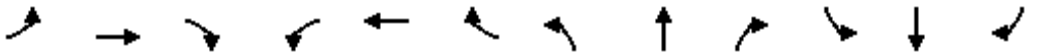
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Turn Type	Split	NA	pm+ov	Split	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	4	4	5	8	8		5	2		1	6	
Permitted Phases			4				2			6		
Detector Phase	4	4	5	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	3.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	8.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	28.0	28.0	15.0	12.0	12.0		15.0	35.0		15.0	35.0	
Total Split (%)	31.1%	31.1%	16.7%	13.3%	13.3%		16.7%	38.9%		16.7%	38.9%	
Maximum Green (s)	23.0	23.0	10.0	7.0	7.0		10.0	30.0		10.0	30.0	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0	5.0		5.0		5.0	5.0		5.0	5.0	
Lead/Lag			Lead				Lead	Lag		Lead	Lag	
Lead-Lag Optimize?			Yes				Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0	1.0	2.0	2.0		1.0	2.0		1.0	2.0	
Recall Mode	None	None	None	None	None		None	C-Max		None	Max	
Walk Time (s)	8.0	8.0										
Flash Dont Walk (s)	15.0	15.0										
Pedestrian Calls (#/hr)	2	2										
v/c Ratio		0.66	0.21		0.20		0.45	0.43		0.02	0.82	
Control Delay		45.0	19.3		33.2		17.3	9.9		6.2	23.9	
Queue Delay		0.0	0.0		0.0		0.0	0.4		0.0	0.1	
Total Delay		45.0	19.3		33.2		17.3	10.4		6.2	24.0	
Queue Length 50th (ft)		103	33		8		16	86		1	290	
Queue Length 95th (ft)		151	40		32		m74	220		m2	#774	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		449	425		144		330	1247		599	967	
Starvation Cap Reductn		0	0		0		0	313		0	5	
Spillback Cap Reductn		0	0		0		0	0		0	0	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.42	0.18		0.17		0.35	0.57		0.02	0.83	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red
Natural Cycle: 75
Control Type: Actuated-Coordinated
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: NYS Route 9D & Beekman Street/W. Church Street

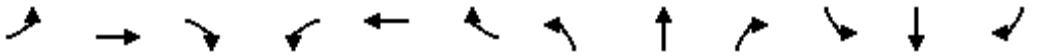




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	163	6	68	10	4	8	103	470	4	8	512	197
Future Volume (veh/h)	163	6	68	10	4	8	103	470	4	8	512	197
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.94	1.00		0.90	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1847	1847	1847	2263	2263	2263	2106	2106	2106	1817	1817	1817
Adj Flow Rate, veh/h	183	7	76	11	4	9	116	528	4	9	575	221
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	249	10	283	23	8	19	312	1251	9	483	701	269
Arrive On Green	0.15	0.15	0.15	0.03	0.03	0.03	0.04	0.60	0.60	0.01	0.56	0.56
Sat Flow, veh/h	1697	65	1465	911	331	745	2006	2087	16	1731	1247	479
Grp Volume(v), veh/h	190	0	76	24	0	0	116	0	532	9	0	796
Grp Sat Flow(s),veh/h/ln	1762	0	1465	1987	0	0	2006	0	2103	1731	0	1727
Q Serve(g_s), s	9.3	0.0	4.0	1.1	0.0	0.0	2.2	0.0	12.2	0.2	0.0	33.7
Cycle Q Clear(g_c), s	9.3	0.0	4.0	1.1	0.0	0.0	2.2	0.0	12.2	0.2	0.0	33.7
Prop In Lane	0.96		1.00	0.46		0.37	1.00		0.01	1.00		0.28
Lane Grp Cap(c), veh/h	258	0	283	50	0	0	312	0	1261	483	0	971
V/C Ratio(X)	0.74	0.00	0.27	0.48	0.00	0.00	0.37	0.00	0.42	0.02	0.00	0.82
Avail Cap(c_a), veh/h	450	0	443	155	0	0	447	0	1261	664	0	971
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	0.00	0.00	0.87	0.00	0.87	0.79	0.00	0.79
Uniform Delay (d), s/veh	36.7	0.0	31.1	43.3	0.0	0.0	14.9	0.0	9.7	8.8	0.0	16.0
Incr Delay (d2), s/veh	1.5	0.0	0.2	2.7	0.0	0.0	0.2	0.0	0.9	0.0	0.0	6.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	4.0	0.0	1.4	0.6	0.0	0.0	0.9	0.0	5.4	0.1	0.0	13.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	38.3	0.0	31.3	46.0	0.0	0.0	15.1	0.0	10.6	8.8	0.0	22.2
LnGrp LOS	D	A	C	D	A	A	B	A	B	A	A	C
Approach Vol, veh/h		266			24			648			805	
Approach Delay, s/veh		36.3			46.0			11.4			22.1	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	59.0		18.2	9.0	55.6		7.3				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	30.0		23.0	10.0	30.0		7.0				
Max Q Clear Time (g_c+I1), s	2.2	14.2		11.3	4.2	35.7		3.1				
Green Ext Time (p_c), s	0.0	1.0		0.4	0.0	0.0		0.0				

Intersection Summary			
HCM 6th Ctrl Delay		20.6	
HCM 6th LOS		C	



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	2	2	38	0	219	2	357	52	275	320	3
Future Volume (vph)	2	2	2	38	0	219	2	357	52	275	320	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			3%	
Storage Length (ft)	0		0	0		70	65		0	120		0
Storage Lanes	0		0	0		1	1		0	1		0
Taper Length (ft)	25			25			86			86		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		0.98				0.97		0.99			1.00	
Frt		0.955				0.850		0.981			0.999	
Flt Protected		0.984			0.950		0.950			0.950		
Satd. Flow (prot)	0	1749	0	0	1877	1663	1832	1822	0	1760	1851	0
Flt Permitted		0.920			0.752		0.551			0.381		
Satd. Flow (perm)	0	1635	0	0	1486	1611	1063	1822	0	706	1851	0
Right Turn on Red			Yes			No			No			Yes
Satd. Flow (RTOR)		3									1	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		133			350			1002			388	
Travel Time (s)		3.0			8.0			22.8			8.8	
Confl. Peds. (#/hr)			14			6			48			11
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	0%	0%	0%	1%	0%	2%	5%	1%	1%	0%
Adj. Flow (vph)	3	3	3	43	0	246	2	406	59	299	348	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	9	0	0	43	246	2	465	0	299	351	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane								Yes				
Headway Factor	1.01	1.01	1.01	0.95	0.95	0.95	0.98	0.98	0.98	1.02	1.02	1.02
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2	2	2	2		2	2	
Detector Template	Left			Left								
Leading Detector (ft)	20	41		20	41	41	41	41		41	41	
Trailing Detector (ft)	0	-7		0	-7	-7	1	-7		-7	-7	
Detector 1 Position(ft)	0	-7		0	-7	-7	7	-7		-7	-7	
Detector 1 Size(ft)	20	6		20	6	6	6	6		6	6	
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		1			1	1	1	1		1	1	
Detector 2 Size(ft)		40			40	40	40	40		40	40	
Detector 2 Type		Cl+Ex			Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 2 Channel												

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector 2 Extend (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Turn Type	Perm	NA		Perm	NA	pm+ov	pm+pt	NA		pm+pt	NA	
Protected Phases		4			8	1	5	2		1	6	
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0	8.0	8.0	15.0		8.0	15.0	
Total Split (s)	35.0	35.0		35.0	35.0	15.0	15.0	40.0		15.0	40.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%	16.7%	16.7%	44.4%		16.7%	44.4%	
Maximum Green (s)	30.0	30.0		30.0	30.0	10.0	10.0	35.0		10.0	35.0	
Yellow Time (s)	4.0	4.0		4.0	4.0	4.0	4.0	4.0		4.0	4.0	
All-Red Time (s)	1.0	1.0		1.0	1.0	1.0	1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)		5.0			5.0	5.0	5.0	5.0		5.0	5.0	
Lead/Lag						Lead	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?						Yes	Yes	Yes		Yes	Yes	
Vehicle Extension (s)	2.0	2.0		2.0	2.0	1.0	1.0	1.0		1.0	1.0	
Recall Mode	None	None		None	None	None	None	C-Max		None	Max	
Walk Time (s)	8.0	8.0		8.0	8.0			8.0				
Flash Dont Walk (s)	15.0	15.0		15.0	15.0			15.0				
Pedestrian Calls (#/hr)	15	15		15	15			21				
v/c Ratio		0.04			0.20	0.59	0.00	0.43		0.42	0.24	
Control Delay		23.2			32.3	30.8	7.0	15.0		9.5	6.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.3	
Total Delay		23.2			32.3	30.8	7.0	15.0		9.5	6.2	
Queue Length 50th (ft)		3			24	124	0	115		16	19	
Queue Length 95th (ft)		11			45	134	3	294		m111	m93	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		547			495	418	841	1093		704	1473	
Starvation Cap Reductn		0			0	0	0	0		0	558	
Spillback Cap Reductn		0			0	0	0	26		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.02			0.09	0.59	0.00	0.44		0.42	0.38	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 0 (0%), Referenced to phase 2:NBTL, Start of Red	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 4: NYS Route 9D & Beacon City Hall/Main Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	2	38	0	219	2	357	52	275	320	3
Future Volume (veh/h)	2	2	2	38	0	219	2	357	52	275	320	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.96	0.96		0.98	0.99		0.96	0.99		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1894	1894	1894	2215	2215	2200	2018	1988	1943	1832	1832	1847
Adj Flow Rate, veh/h	3	3	3	43	0	246	2	406	59	299	348	3
Peak Hour Factor	0.71	0.71	0.71	0.89	0.89	0.89	0.88	0.88	0.88	0.92	0.92	0.92
Percent Heavy Veh, %	0	0	0	0	0	1	0	2	5	1	1	0
Cap, veh/h	115	111	87	353	0	474	720	972	141	632	1201	10
Arrive On Green	0.17	0.17	0.17	0.17	0.00	0.17	0.00	0.58	0.58	0.09	0.66	0.66
Sat Flow, veh/h	364	658	511	1612	0	1831	1922	1686	245	1745	1814	16
Grp Volume(v), veh/h	9	0	0	43	0	246	2	0	465	299	0	351
Grp Sat Flow(s),veh/h/ln	1533	0	0	1612	0	1831	1922	0	1931	1745	0	1829
Q Serve(g_s), s	0.0	0.0	0.0	1.6	0.0	10.4	0.0	0.0	12.1	5.8	0.0	7.2
Cycle Q Clear(g_c), s	0.4	0.0	0.0	2.0	0.0	10.4	0.0	0.0	12.1	5.8	0.0	7.2
Prop In Lane	0.33		0.33	1.00		1.00	1.00		0.13	1.00		0.01
Lane Grp Cap(c), veh/h	313	0	0	353	0	474	720	0	1113	632	0	1212
V/C Ratio(X)	0.03	0.00	0.00	0.12	0.00	0.52	0.00	0.00	0.42	0.47	0.00	0.29
Avail Cap(c_a), veh/h	552	0	0	616	0	774	930	0	1113	672	0	1212
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	0.00	1.00	0.00	1.00	1.00	0.00	1.00	0.55	0.00	0.55
Uniform Delay (d), s/veh	31.2	0.0	0.0	31.8	0.0	28.7	8.0	0.0	10.6	7.0	0.0	6.3
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.1	0.0	0.3	0.0	0.0	1.2	0.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.2	0.0	0.0	0.8	0.0	4.5	0.0	0.0	5.1	1.8	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.2	0.0	0.0	31.9	0.0	29.0	8.0	0.0	11.8	7.1	0.0	6.7
LnGrp LOS	C	A	A	C	A	C	A	A	B	A	A	A
Approach Vol, veh/h		9			289			467			650	
Approach Delay, s/veh		31.2			29.4			11.8			6.9	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.9	56.9		20.2	5.1	64.6		20.2				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	35.0		30.0	10.0	35.0		30.0				
Max Q Clear Time (g_c+I1), s	7.8	14.1		2.4	2.0	9.2		12.4				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.6				

Intersection Summary			
HCM 6th Ctrl Delay		13.3	
HCM 6th LOS		B	



Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	2	0	208	264	0
Future Volume (vph)	2	2	0	208	264	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	14	12	12
Grade (%)	-10%			1%	-5%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor						
Frt	0.932					
Flt Protected	0.976					
Satd. Flow (prot)	1838	0	0	1977	1909	0
Flt Permitted	0.976					
Satd. Flow (perm)	1838	0	0	1977	1909	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	304			202	216	
Travel Time (s)	6.9			4.6	4.9	
Confl. Peds. (#/hr)	14	17	17			14
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	2	2	0	242	307	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	242	307	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	13			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.90	0.94	1.01	0.92	0.97	0.97
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	2	0	208	264	0
Future Vol, veh/h	2	2	0	208	264	0
Conflicting Peds, #/hr	14	17	17	0	0	14
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-10	-	-	1	-5	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	2	2	0	242	307	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	580	341	324	0	-	0
Stage 1	324	-	-	-	-	-
Stage 2	256	-	-	-	-	-
Critical Hdwy	4.42	5.22	4.12	-	-	-
Critical Hdwy Stg 1	3.42	-	-	-	-	-
Critical Hdwy Stg 2	3.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	658	771	1236	-	-	-
Stage 1	878	-	-	-	-	-
Stage 2	907	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	638	747	1217	-	-	-
Mov Cap-2 Maneuver	638	-	-	-	-	-
Stage 1	865	-	-	-	-	-
Stage 2	893	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	10.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1217	-	688	-	-
HCM Lane V/C Ratio	-	-	0.007	-	-
HCM Control Delay (s)	0	-	10.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	38	8	8	201	256	29
Future Volume (vph)	38	8	8	201	256	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	15	12	12	16	11	12
Grade (%)	0%			2%	0%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.977				0.986	
Flt Protected	0.960			0.998		
Satd. Flow (prot)	1922	0	0	2086	1775	0
Flt Permitted	0.960			0.998		
Satd. Flow (perm)	1922	0	0	2086	1775	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	200			216	408	
Travel Time (s)	4.5			4.9	9.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	44	9	9	234	298	34
Shared Lane Traffic (%)						
Lane Group Flow (vph)	53	0	0	243	332	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	15			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.88	1.00	1.01	0.86	1.04	1.00
Turning Speed (mph)	60	60	60			60
Sign Control	Stop			Free	Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.2

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	38	8	8	201	256	29
Future Vol, veh/h	38	8	8	201	256	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	2	0	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	44	9	9	234	298	34

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	567	315	332	0	-	0
Stage 1	315	-	-	-	-	-
Stage 2	252	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	485	725	1227	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	790	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	481	725	1227	-	-	-
Mov Cap-2 Maneuver	481	-	-	-	-	-
Stage 1	734	-	-	-	-	-
Stage 2	790	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s	12.9	0.3	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1227	-	511	-	-
HCM Lane V/C Ratio	0.008	-	0.105	-	-
HCM Control Delay (s)	8	0	12.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	79	0	18	108	0	9
Future Volume (vph)	79	0	18	108	0	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	13	12	12	13	9	12
Grade (%)	-5%			3%	3%	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.865	
Flt Protected				0.993		
Satd. Flow (prot)	1973	0	0	1883	1428	0
Flt Permitted				0.993		
Satd. Flow (perm)	1973	0	0	1883	1428	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	341			103	156	
Travel Time (s)	7.8			2.3	3.5	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	92	0	21	126	0	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	92	0	0	147	10	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	0			0	9	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.93	0.97	1.02	0.98	1.17	1.02
Turning Speed (mph)		60	60		60	60
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other

Control Type: Unsignalized

Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	79	0	18	108	0	9
Future Vol, veh/h	79	0	18	108	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	-5	-	-	3	3	-
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	92	0	21	126	0	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	92	0	260	92
Stage 1	-	-	-	-	92	-
Stage 2	-	-	-	-	168	-
Critical Hdwy	-	-	4.12	-	7.02	6.52
Critical Hdwy Stg 1	-	-	-	-	6.02	-
Critical Hdwy Stg 2	-	-	-	-	6.02	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1503	-	698	958
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	838	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1503	-	688	958
Mov Cap-2 Maneuver	-	-	-	-	688	-
Stage 1	-	-	-	-	917	-
Stage 2	-	-	-	-	825	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.1	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	958	-	-	1503	-
HCM Lane V/C Ratio	0.011	-	-	0.014	-
HCM Control Delay (s)	8.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

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Appendix E | Traffic Volumes and Reference Data

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Appendix E | Traffic Volume Data

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 1._NYS_Route_9D_and_Verplanck_Avenue_-WKDAY_1107097_09-07-2023
Site Code :
Start Date : 9/7/2023
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					VERPLANCK AVE From East					NORTH AVE From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	164	68	0	232	63	0	17	0	80	12	99	0	1	112	0	0	0	0	0	424
07:15 AM	0	132	70	0	202	68	0	10	0	78	13	110	0	1	124	0	0	0	0	0	404
07:30 AM	0	136	57	0	193	59	0	19	0	78	4	114	0	0	118	0	0	0	0	0	389
07:45 AM	0	121	79	0	200	58	0	12	1	71	16	137	0	0	153	0	0	0	0	0	424
Total	0	553	274	0	827	248	0	58	1	307	45	460	0	2	507	0	0	0	0	0	1641
08:00 AM	0	171	71	0	242	32	0	19	0	51	8	88	0	1	97	0	0	0	0	0	390
08:15 AM	0	136	44	0	180	33	0	7	3	43	9	132	0	0	141	0	0	0	0	0	364
08:30 AM	0	142	55	0	197	41	0	7	2	50	7	122	0	0	129	0	0	0	0	0	376
08:45 AM	0	125	41	0	166	37	0	12	1	50	11	128	0	0	139	0	0	0	0	0	355
Total	0	574	211	0	785	143	0	45	6	194	35	470	0	1	506	0	0	0	0	0	1485
Grand Total	0	1127	485	0	1612	391	0	103	7	501	80	930	0	3	1013	0	0	0	0	0	3126
Apprch %	0	69.9	30.1	0		78	0	20.6	1.4		7.9	91.8	0	0.3		0	0	0	0		
Total %	0	36.1	15.5	0	51.6	12.5	0	3.3	0.2	16	2.6	29.8	0	0.1	32.4	0	0	0	0	0	
Lights	0	1075	458	0	1533	371	0	93	0	464	73	876	0	0	949	0	0	0	0	0	2946
% Lights	0	95.4	94.4	0	95.1	94.9	0	90.3	0	92.6	91.2	94.2	0	0	93.7	0	0	0	0	0	94.2
Buses	0	17	15	0	32	11	0	7	0	18	5	20	0	0	25	0	0	0	0	0	75
% Buses	0	1.5	3.1	0	2	2.8	0	6.8	0	3.6	6.2	2.2	0	0	2.5	0	0	0	0	0	2.4
Trucks	0	35	12	0	47	9	0	3	0	12	2	34	0	0	36	0	0	0	0	0	95
% Trucks	0	3.1	2.5	0	2.9	2.3	0	2.9	0	2.4	2.5	3.7	0	0	3.6	0	0	0	0	0	3
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	2	2	0	0	0	1	1	0	0	0	0	0	3
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	28.6	0.4	0	0	0	33.3	0.1	0	0	0	0	0	0.1
Pedestrians	0	0	0	0	0	0	0	0	5	5	0	0	0	2	2	0	0	0	0	0	7
% Pedestrians	0	0	0	0	0	0	0	0	71.4	1	0	0	0	66.7	0.2	0	0	0	0	0	0.2

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400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 1._NYS_Route_9D_and_Verplanck_Avenue_-WKDAY_1107097_09-07-2023
Site Code :
Start Date : 9/7/2023

	NORTH AVE From North					VERPLANCK AVE From East					NORTH AVE From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	**164**	68	0	**232**	63	0	17	0	**80**	12	99	0	**1**	112	0	0	0	0	0	**424**
07:15 AM	0	132	70	0	202	**68**	0	10	0	78	13	110	0	1	124	0	0	0	0	0	404
07:30 AM	0	136	57	0	193	59	0	**19**	0	78	4	114	0	0	118	0	0	0	0	0	389
07:45 AM	0	121	**79**	0	200	58	0	12	**1**	71	**16**	**137**	0	0	**153**	0	0	0	0	0	424
Total Volume	0	553	274	0	827	248	0	58	1	307	45	460	0	2	507	0	0	0	0	0	1641
% App. Total	0	66.9	33.1	0		80.8	0	18.9	0.3		8.9	90.7	0	0.4		0	0	0	0		
PHF	.000	.843	.867	.000	.891	.912	.000	.763	.250	.959	.703	.839	.000	.500	.828	.000	.000	.000	.000	.000	.968
Lights	0	527	260	0	787	240	0	51	0	291	40	437	0	0	477	0	0	0	0	0	1555
% Lights	0	95.3	94.9	0	95.2	96.8	0	87.9	0	94.8	88.9	95.0	0	0	94.1	0	0	0	0	0	94.8
Buses	0	6	9	0	15	6	0	5	0	11	3	7	0	0	10	0	0	0	0	0	36
% Buses	0	1.1	3.3	0	1.8	2.4	0	8.6	0	3.6	6.7	1.5	0	0	2.0	0	0	0	0	0	2.2
Trucks	0	20	5	0	25	2	0	2	0	4	2	16	0	0	18	0	0	0	0	0	47
% Trucks	0	3.6	1.8	0	3.0	0.8	0	3.4	0	1.3	4.4	3.5	0	0	3.6	0	0	0	0	0	2.9
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	50.0	0.2	0	0	0	0	0	0.1
Pedestrians	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	2
% Pedestrians	0	0	0	0	0	0	0	0	100	0.3	0	0	0	50.0	0.2	0	0	0	0	0	0.1

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 1._NYS_Route_9D_and_Verplanck_Avenue_-WKDAY_1107097_09-07-2023
Site Code :
Start Date : 9/7/2023
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					VERPLANCK AVE From East					NORTH AVE From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:00 PM	0	120	57	0	177	89	0	15	0	104	6	116	0	1	123	0	0	0	0	0	404
03:15 PM	0	117	47	0	164	82	0	15	0	97	12	154	0	0	166	0	0	0	0	0	427
03:30 PM	0	102	44	0	146	86	0	16	1	103	3	148	0	0	151	0	0	0	0	0	400
03:45 PM	0	156	38	0	194	67	0	8	0	75	5	150	0	0	155	0	0	0	0	0	424
Total	0	495	186	0	681	324	0	54	1	379	26	568	0	1	595	0	0	0	0	0	1655
04:00 PM	0	127	42	0	169	76	0	10	0	86	9	129	0	0	138	0	0	0	0	0	393
04:15 PM	0	153	55	0	208	74	0	10	0	84	7	165	0	0	172	0	0	0	0	0	464
04:30 PM	0	144	54	0	198	54	0	11	2	67	4	155	0	0	159	0	0	0	0	0	424
04:45 PM	0	143	66	0	209	80	0	19	0	99	1	148	0	1	150	0	0	0	0	0	458
Total	0	567	217	0	784	284	0	50	2	336	21	597	0	1	619	0	0	0	0	0	1739
05:00 PM	0	129	44	0	173	89	0	19	1	109	4	151	0	0	155	0	0	0	0	0	437
05:15 PM	0	99	44	0	143	54	0	12	3	69	4	69	0	0	73	0	0	0	0	0	285
05:30 PM	0	127	44	0	171	71	0	26	0	97	3	91	0	0	94	0	0	0	0	0	362
05:45 PM	0	100	49	0	149	77	0	17	0	94	4	59	0	0	63	0	0	0	0	0	306
Total	0	455	181	0	636	291	0	74	4	369	15	370	0	0	385	0	0	0	0	0	1390
06:00 PM	0	109	55	0	164	72	0	22	1	95	1	71	0	1	73	0	0	0	0	0	332
06:15 PM	0	107	31	0	138	60	0	25	0	85	3	136	0	3	142	0	0	0	0	0	365
Grand Total	0	1733	670	0	2403	1031	0	225	8	1264	66	1742	0	6	1814	0	0	0	0	0	5481
Apprch %	0	72.1	27.9	0		81.6	0	17.8	0.6		3.6	96	0	0.3		0	0	0	0		
Total %	0	31.6	12.2	0	43.8	18.8	0	4.1	0.1	23.1	1.2	31.8	0	0.1	33.1	0	0	0	0	0	
Lights	0	1690	657	0	2347	1006	0	215	0	1221	63	1687	0	0	1750	0	0	0	0	0	5318
% Lights	0	97.5	98.1	0	97.7	97.6	0	95.6	0	96.6	95.5	96.8	0	0	96.5	0	0	0	0	0	97
Buses	0	21	6	0	27	12	0	6	0	18	2	24	0	0	26	0	0	0	0	0	71
% Buses	0	1.2	0.9	0	1.1	1.2	0	2.7	0	1.4	3	1.4	0	0	1.4	0	0	0	0	0	1.3
Trucks	0	22	7	0	29	13	0	4	0	17	1	31	0	0	32	0	0	0	0	0	78
% Trucks	0	1.3	1	0	1.2	1.3	0	1.8	0	1.3	1.5	1.8	0	0	1.8	0	0	0	0	0	1.4
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	0	0	4
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	50	0.3	0	0	0	0	0	0	0	0	0	0	0.1
Pedestrians	0	0	0	0	0	0	0	0	4	4	0	0	0	6	6	0	0	0	0	0	10
% Pedestrians	0	0	0	0	0	0	0	0	50	0.3	0	0	0	100	0.3	0	0	0	0	0	0.2

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 1._NYS_Route_9D_and_Verplanck_Avenue_-WKDAY_1107097_09-07-2023
Site Code :
Start Date : 9/7/2023

	NORTH AVE From North					VERPLANCK AVE From East					NORTH AVE From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	0	**153**	55	0	208	74	0	10	0	84	**7**	**165**	0	0	**172**	0	0	0	0	0	**464**
04:30 PM	0	144	54	0	198	54	0	11	**2**	67	4	155	0	0	159	0	0	0	0	0	424
04:45 PM	0	143	**66**	0	**209**	80	0	**19**	0	99	1	148	0	**1**	150	0	0	0	0	0	458
05:00 PM	0	129	44	0	173	**89**	0	19	1	**109**	4	151	0	0	155	0	0	0	0	0	437
Total Volume	0	569	219	0	788	297	0	59	3	359	16	619	0	1	636	0	0	0	0	0	1783
% App. Total	0	72.2	27.8	0		82.7	0	16.4	0.8		2.5	97.3	0	0.2		0	0	0	0		
PHF	.000	.930	.830	.000	.943	.834	.000	.776	.375	.823	.571	.938	.000	.250	.924	.000	.000	.000	.000	.000	.961
Lights	0	553	217	0	770	292	0	59	0	351	16	606	0	0	622	0	0	0	0	0	1743
% Lights	0	97.2	99.1	0	97.7	98.3	0	100	0	97.8	100	97.9	0	0	97.8	0	0	0	0	0	97.8
Buses	0	5	0	0	5	1	0	0	0	1	0	7	0	0	7	0	0	0	0	0	13
% Buses	0	0.9	0	0	0.6	0.3	0	0	0	0.3	0	1.1	0	0	1.1	0	0	0	0	0	0.7
Trucks	0	11	2	0	13	4	0	0	0	4	0	6	0	0	6	0	0	0	0	0	23
% Trucks	0	1.9	0.9	0	1.6	1.3	0	0	0	1.1	0	1.0	0	0	0.9	0	0	0	0	0	1.3
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	2
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	66.7	0.6	0	0	0	0	0	0	0	0	0	0	0.1
Pedestrians	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	2
% Pedestrians	0	0	0	0	0	0	0	0	33.3	0.3	0	0	0	100	0.2	0	0	0	0	0	0.1

Colliers Engineering & Design

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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					VERPLANCK AVE From East					NORTH AVE From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
11:00 AM	0	160	43	0	203	53	0	8	1	62	10	127	0	0	137	0	0	0	0	0	402
11:15 AM	0	127	55	0	182	57	0	5	0	62	7	103	0	0	110	0	0	0	0	0	354
11:30 AM	0	125	52	0	177	65	0	3	0	68	8	128	0	1	137	0	0	0	0	0	382
11:45 AM	0	155	46	0	201	65	0	16	0	81	9	113	0	2	124	0	0	0	0	0	406
Total	0	567	196	0	763	240	0	32	1	273	34	471	0	3	508	0	0	0	0	0	1544
12:00 PM	0	158	48	0	206	62	0	9	0	71	9	140	0	0	149	0	0	0	0	0	426
12:15 PM	0	157	34	0	191	78	0	8	1	87	6	127	0	2	135	0	0	0	0	0	413
12:30 PM	0	136	44	0	180	65	0	12	0	77	7	125	0	0	132	0	0	0	0	0	389
12:45 PM	0	144	42	0	186	54	0	8	1	63	13	135	0	0	148	0	0	0	0	0	397
Total	0	595	168	0	763	259	0	37	2	298	35	527	0	2	564	0	0	0	0	0	1625
01:00 PM	0	137	47	0	184	60	0	9	1	70	4	119	0	1	124	0	0	0	0	0	378
01:15 PM	0	147	51	0	198	58	0	9	0	67	8	117	0	1	126	0	0	0	0	0	391
01:30 PM	0	153	52	0	205	66	0	11	0	77	7	157	0	5	169	0	0	0	0	0	451
01:45 PM	0	157	54	0	211	63	0	14	0	77	5	139	0	0	144	0	0	0	0	0	432
Total	0	594	204	0	798	247	0	43	1	291	24	532	0	7	563	0	0	0	0	0	1652
Grand Total	0	1756	568	0	2324	746	0	112	4	862	93	1530	0	12	1635	0	0	0	0	0	4821
Apprch %	0	75.6	24.4	0		86.5	0	13	0.5		5.7	93.6	0	0.7		0	0	0	0		
Total %	0	36.4	11.8	0	48.2	15.5	0	2.3	0.1	17.9	1.9	31.7	0	0.2	33.9	0	0	0	0	0	
Lights	0	1735	561	0	2296	733	0	110	0	843	92	1509	0	0	1601	0	0	0	0	0	4740
% Lights	0	98.8	98.8	0	98.8	98.3	0	98.2	0	97.8	98.9	98.6	0	0	97.9	0	0	0	0	0	98.3
Buses	0	7	1	0	8	5	0	0	0	5	0	5	0	0	5	0	0	0	0	0	18
% Buses	0	0.4	0.2	0	0.3	0.7	0	0	0	0.6	0	0.3	0	0	0.3	0	0	0	0	0	0.4
Trucks	0	14	6	0	20	8	0	2	0	10	1	16	0	0	17	0	0	0	0	0	47
% Trucks	0	0.8	1.1	0	0.9	1.1	0	1.8	0	1.2	1.1	1	0	0	1	0	0	0	0	0	1
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	4	4	0	0	0	12	12	0	0	0	0	0	16
% Pedestrians	0	0	0	0	0	0	0	0	100	0.5	0	0	0	100	0.7	0	0	0	0	0	0.3

Colliers Engineering & Design

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	NORTH AVE From North					VERPLANCK AVE From East					NORTH AVE From South					From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	0	137	47	0	184	60	0	9	**1**	70	4	119	0	1	124	0	0	0	0	0	378
01:15 PM	0	147	51	0	198	58	0	9	0	67	**8**	117	0	1	126	0	0	0	0	0	391
01:30 PM	0	153	52	0	205	**66**	0	11	0	**77**	7	**157**	0	**5**	**169**	0	0	0	0	0	**451**
01:45 PM	0	**157**	**54**	0	**211**	63	0	**14**	0	77	5	139	0	0	144	0	0	0	0	0	432
Total Volume	0	594	204	0	798	247	0	43	1	291	24	532	0	7	563	0	0	0	0	0	1652
% App. Total	0	74.4	25.6	0		84.9	0	14.8	0.3		4.3	94.5	0	1.2		0	0	0	0		
PHF	.000	.946	.944	.000	.945	.936	.000	.768	.250	.945	.750	.847	.000	.350	.833	.000	.000	.000	.000	.000	.916
Lights	0	590	203	0	793	246	0	43	0	289	24	524	0	0	548	0	0	0	0	0	1630
% Lights	0	99.3	99.5	0	99.4	99.6	0	100	0	99.3	100	98.5	0	0	97.3	0	0	0	0	0	98.7
Buses	0	2	1	0	3	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	5
% Buses	0	0.3	0.5	0	0.4	0.4	0	0	0	0.3	0	0.2	0	0	0.2	0	0	0	0	0	0.3
Trucks	0	2	0	0	2	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	9
% Trucks	0	0.3	0	0	0.3	0	0	0	0	0	0	1.3	0	0	1.2	0	0	0	0	0	0.5
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	1	1	0	0	0	7	7	0	0	0	0	0	8
% Pedestrians	0	0	0	0	0	0	0	0	100	0.3	0	0	0	100	1.2	0	0	0	0	0	0.5

Colliers Engineering & Design

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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					RALPH ST From East					NORTH AVE From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	17	168	0	0	185	2	1	0	0	3	0	97	2	0	99	1	3	6	0	10	297
07:15 AM	14	132	0	0	146	1	0	0	1	2	1	106	1	0	108	3	0	6	2	11	267
07:30 AM	8	138	0	0	146	1	1	0	1	3	0	97	1	0	98	0	1	5	1	7	254
07:45 AM	13	122	2	0	137	0	2	1	2	5	0	122	2	0	124	5	3	11	0	19	285
Total	52	560	2	0	614	4	4	1	4	13	1	422	6	0	429	9	7	28	3	47	1103
08:00 AM	15	173	0	0	188	1	0	1	1	3	0	92	0	0	92	2	2	3	1	8	291
08:15 AM	7	142	0	0	149	2	0	1	6	9	1	121	4	0	126	9	0	4	2	15	299
08:30 AM	8	151	0	0	159	2	0	4	3	9	1	121	5	0	127	11	1	7	2	21	316
08:45 AM	7	123	1	0	131	3	0	2	2	7	3	135	7	2	147	2	0	4	1	7	292
Total	37	589	1	0	627	8	0	8	12	28	5	469	16	2	492	24	3	18	6	51	1198
Grand Total	89	1149	3	0	1241	12	4	9	16	41	6	891	22	2	921	33	10	46	9	98	2301
Apprch %	7.2	92.6	0.2	0		29.3	9.8	22	39		0.7	96.7	2.4	0.2		33.7	10.2	46.9	9.2		
Total %	3.9	49.9	0.1	0	53.9	0.5	0.2	0.4	0.7	1.8	0.3	38.7	1	0.1	40	1.4	0.4	2	0.4	4.3	
Lights	82	1100	3	0	1185	11	4	8	0	23	6	840	22	0	868	32	10	46	0	88	2164
% Lights	92.1	95.7	100	0	95.5	91.7	100	88.9	0	56.1	100	94.3	100	0	94.2	97	100	100	0	89.8	94
Buses	0	20	0	0	20	1	0	1	0	2	0	19	0	0	19	0	0	0	0	0	41
% Buses	0	1.7	0	0	1.6	8.3	0	11.1	0	4.9	0	2.1	0	0	2.1	0	0	0	0	0	1.8
Trucks	7	29	0	0	36	0	0	0	0	0	0	32	0	0	32	1	0	0	0	1	69
% Trucks	7.9	2.5	0	0	2.9	0	0	0	0	0	0	3.6	0	0	3.5	3	0	0	0	1	3
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	2	2	6
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	25	9.8	0	0	0	0	0	0	0	0	22.2	2	0.3
Pedestrians	0	0	0	0	0	0	0	0	12	12	0	0	0	2	2	0	0	0	7	7	21
% Pedestrians	0	0	0	0	0	0	0	0	75	29.3	0	0	0	100	0.2	0	0	0	77.8	7.1	0.9

Colliers Engineering & Design

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	NORTH AVE From North					RALPH ST From East					NORTH AVE From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	**15**	**173**	0	0	**188**	1	0	1	1	3	0	92	0	0	92	2	**2**	3	1	8	291
08:15 AM	7	142	0	0	149	2	0	1	**6**	**9**	1	121	4	0	126	9	0	4	**2**	15	299
08:30 AM	8	151	0	0	159	2	0	**4**	3	9	1	121	5	0	127	**11**	1	**7**	2	**21**	**316**
08:45 AM	7	123	**1**	0	131	**3**	0	2	2	7	**3**	**135**	**7**	**2**	**147**	2	0	4	1	7	292
Total Volume	37	589	1	0	627	8	0	8	12	28	5	469	16	2	492	24	3	18	6	51	1198
% App. Total	5.9	93.9	0.2	0		28.6	0	28.6	42.9		1	95.3	3.3	0.4		47.1	5.9	35.3	11.8		
PHF	.617	.851	.250	.000	.834	.667	.000	.500	.500	.778	.417	.869	.571	.250	.837	.545	.375	.643	.750	.607	.948
Lights	33	566	1	0	600	8	0	7	0	15	5	442	16	0	463	23	3	18	0	44	1122
% Lights	89.2	96.1	100	0	95.7	100	0	87.5	0	53.6	100	94.2	100	0	94.1	95.8	100	100	0	86.3	93.7
Buses	0	9	0	0	9	0	0	1	0	1	0	10	0	0	10	0	0	0	0	0	20
% Buses	0	1.5	0	0	1.4	0	0	12.5	0	3.6	0	2.1	0	0	2.0	0	0	0	0	0	1.7
Trucks	4	14	0	0	18	0	0	0	0	0	0	17	0	0	17	1	0	0	0	1	36
% Trucks	10.8	2.4	0	0	2.9	0	0	0	0	0	0	3.6	0	0	3.5	4.2	0	0	0	2.0	3.0
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	4	4	0	0	0	0	0	0	0	0	1	1	5
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	33.3	14.3	0	0	0	0	0	0	0	0	16.7	2.0	0.4
Pedestrians	0	0	0	0	0	0	0	0	8	8	0	0	0	2	2	0	0	0	5	5	15
% Pedestrians	0	0	0	0	0	0	0	0	66.7	28.6	0	0	0	100	0.4	0	0	0	83.3	9.8	1.3

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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					RALPH ST From East					NORTH AVE From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:00 PM	6	124	5	0	135	2	0	2	1	5	2	127	7	0	136	3	3	3	1	10	286
03:15 PM	3	107	2	0	112	1	0	0	0	1	2	180	5	0	187	6	0	3	0	9	309
03:30 PM	3	97	1	0	101	1	0	1	1	3	1	138	3	0	142	1	0	3	1	5	251
03:45 PM	5	153	1	0	159	2	1	1	0	4	0	145	4	0	149	4	1	6	0	11	323
Total	17	481	9	0	507	6	1	4	2	13	5	590	19	0	614	14	4	15	2	35	1169
04:00 PM	1	112	2	0	115	3	0	0	0	3	0	126	3	1	130	2	2	10	1	15	263
04:15 PM	4	139	2	0	145	3	1	3	0	7	1	170	2	0	173	4	2	7	3	16	341
04:30 PM	7	145	0	0	152	1	1	0	0	2	2	129	2	0	133	3	2	2	1	8	295
04:45 PM	5	150	1	0	156	0	1	2	0	3	1	162	4	0	167	2	1	5	0	8	334
Total	17	546	5	0	568	7	3	5	0	15	4	587	11	1	603	11	7	24	5	47	1233
05:00 PM	8	124	2	0	134	0	0	1	2	3	1	137	6	0	144	2	0	7	0	9	290
05:15 PM	9	97	2	0	108	1	0	1	0	2	2	85	2	3	92	5	2	5	1	13	215
05:30 PM	8	130	2	0	140	0	1	1	0	2	2	88	1	0	91	4	6	4	0	14	247
05:45 PM	6	99	5	0	110	2	0	0	2	4	1	43	1	2	47	2	1	3	0	6	167
Total	31	450	11	0	492	3	1	3	4	11	6	353	10	5	374	13	9	19	1	42	919
06:00 PM	5	114	0	0	119	2	0	1	3	6	1	86	2	1	90	3	3	1	0	7	222
06:15 PM	3	112	3	0	118	1	0	0	0	1	3	127	3	0	133	1	1	4	1	7	259
Grand Total	73	1703	28	0	1804	19	5	13	9	46	19	1743	45	7	1814	42	24	63	9	138	3802
Apprch %	4	94.4	1.6	0		41.3	10.9	28.3	19.6		1	96.1	2.5	0.4		30.4	17.4	45.7	6.5		
Total %	1.9	44.8	0.7	0	47.4	0.5	0.1	0.3	0.2	1.2	0.5	45.8	1.2	0.2	47.7	1.1	0.6	1.7	0.2	3.6	
Lights	73	1655	27	0	1755	17	5	12	0	34	19	1693	45	0	1757	42	24	61	0	127	3673
% Lights	100	97.2	96.4	0	97.3	89.5	100	92.3	0	73.9	100	97.1	100	0	96.9	100	100	96.8	0	92	96.6
Buses	0	24	0	0	24	2	0	0	0	2	0	21	0	0	21	0	0	0	0	0	47
% Buses	0	1.4	0	0	1.3	10.5	0	0	0	4.3	0	1.2	0	0	1.2	0	0	0	0	0	1.2
Trucks	0	24	1	0	25	0	0	1	0	1	0	29	0	0	29	0	0	2	0	2	57
% Trucks	0	1.4	3.6	0	1.4	0	0	7.7	0	2.2	0	1.7	0	0	1.6	0	0	3.2	0	1.4	1.5
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	4	4
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44.4	2.9	0.1
Pedestrians	0	0	0	0	0	0	0	0	9	9	0	0	0	7	7	0	0	0	5	5	21
% Pedestrians	0	0	0	0	0	0	0	0	100	19.6	0	0	0	100	0.4	0	0	0	55.6	3.6	0.6

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	NORTH AVE From North					RALPH ST From East					NORTH AVE From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	4	139	**2**	0	145	**3**	**1**	**3**	0	**7**	1	**170**	2	0	**173**	**4**	**2**	**7**	**3**	**16**	**341**
04:30 PM	7	145	0	0	152	1	1	0	0	2	**2**	129	2	0	133	3	2	2	1	8	295
04:45 PM	5	**150**	1	0	**156**	0	1	2	0	3	1	162	4	0	167	2	1	5	0	8	334
05:00 PM	**8**	124	2	0	134	0	0	1	**2**	3	1	137	**6**	0	144	2	0	7	0	9	290
Total Volume	24	558	5	0	587	4	3	6	2	15	5	598	14	0	617	11	5	21	4	41	1260
% App. Total	4.1	95.1	0.9	0		26.7	20	40	13.3		0.8	96.9	2.3	0		26.8	12.2	51.2	9.8		
PHF	.750	.930	.625	.000	.941	.333	.750	.500	.250	.536	.625	.879	.583	.000	.892	.688	.625	.750	.333	.641	.924
Lights	24	543	5	0	572	3	3	6	0	12	5	585	14	0	604	11	5	21	0	37	1225
% Lights	100	97.3	100	0	97.4	75.0	100	100	0	80.0	100	97.8	100	0	97.9	100	100	100	0	90.2	97.2
Buses	0	5	0	0	5	1	0	0	0	1	0	6	0	0	6	0	0	0	0	0	12
% Buses	0	0.9	0	0	0.9	25.0	0	0	0	6.7	0	1.0	0	0	1.0	0	0	0	0	0	1.0
Trucks	0	10	0	0	10	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	17
% Trucks	0	1.8	0	0	1.7	0	0	0	0	0	0	1.2	0	0	1.1	0	0	0	0	0	1.3
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3	3
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75.0	7.3	0.2
Pedestrians	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	1	1	3
% Pedestrians	0	0	0	0	0	0	0	0	100	13.3	0	0	0	0	0	0	0	0	25.0	2.4	0.2

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 2._NYS_Route_9D_and_Tompkins_Avenue_-SAT_1107100_09-09-2023
Site Code :
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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					RALPH ST From East					NORTH AVE From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
11:00 AM	6	157	1	0	164	3	1	0	2	6	1	116	0	0	117	4	1	5	1	11	298
11:15 AM	6	122	0	0	128	4	0	2	1	7	0	105	1	0	106	2	0	3	0	5	246
11:30 AM	6	117	1	0	124	2	2	1	0	5	1	117	0	0	118	4	1	4	0	9	256
11:45 AM	7	163	1	0	171	2	0	0	1	3	0	117	4	0	121	2	0	6	1	9	304
Total	25	559	3	0	587	11	3	3	4	21	2	455	5	0	462	12	2	18	2	34	1104
12:00 PM	7	153	3	0	163	2	1	0	0	3	0	132	3	0	135	4	1	10	3	18	319
12:15 PM	2	146	2	0	150	3	1	2	1	7	3	112	2	0	117	3	0	4	0	7	281
12:30 PM	6	144	1	0	151	3	3	1	0	7	1	117	2	0	120	1	0	9	2	12	290
12:45 PM	7	139	3	0	149	4	1	1	5	11	0	127	1	0	128	2	0	6	0	8	296
Total	22	582	9	0	613	12	6	4	6	28	4	488	8	0	500	10	1	29	5	45	1186
01:00 PM	6	132	0	0	138	0	0	0	1	1	0	115	3	0	118	1	1	6	0	8	265
01:15 PM	4	148	1	0	153	0	0	0	1	1	0	120	2	1	123	1	0	3	0	4	281
01:30 PM	7	157	3	0	167	1	1	2	0	4	2	146	2	0	150	3	0	3	0	6	327
01:45 PM	11	154	2	0	167	1	0	2	0	3	0	127	1	2	130	3	1	6	5	15	315
Total	28	591	6	0	625	2	1	4	2	9	2	508	8	3	521	8	2	18	5	33	1188
Grand Total	75	1732	18	0	1825	25	10	11	12	58	8	1451	21	3	1483	30	5	65	12	112	3478
Apprch %	4.1	94.9	1	0		43.1	17.2	19	20.7		0.5	97.8	1.4	0.2		26.8	4.5	58	10.7		
Total %	2.2	49.8	0.5	0	52.5	0.7	0.3	0.3	0.3	1.7	0.2	41.7	0.6	0.1	42.6	0.9	0.1	1.9	0.3	3.2	
Lights	75	1705	18	0	1798	24	9	11	0	44	8	1431	21	0	1460	30	5	64	0	99	3401
% Lights	100	98.4	100	0	98.5	96	90	100	0	75.9	100	98.6	100	0	98.4	100	100	98.5	0	88.4	97.8
Buses	0	7	0	0	7	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	13
% Buses	0	0.4	0	0	0.4	0	0	0	0	0	0	0.3	0	0	0.3	0	0	1.5	0	0.9	0.4
Trucks	0	20	0	0	20	1	1	0	0	2	0	15	0	0	15	0	0	0	0	0	37
% Trucks	0	1.2	0	0	1.1	4	10	0	0	3.4	0	1	0	0	1	0	0	0	0	0	1.1
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2	2
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.7	1.8	0.1
Pedestrians	0	0	0	0	0	0	0	0	12	12	0	0	0	3	3	0	0	0	10	10	25
% Pedestrians	0	0	0	0	0	0	0	0	100	20.7	0	0	0	100	0.2	0	0	0	83.3	8.9	0.7

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

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Site Code :
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	NORTH AVE From North					RALPH ST From East					NORTH AVE From South					TOMPKINS AVE From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 11:45 AM																					
11:45 AM	**7**	**163**	1	0	**171**	2	0	0	**1**	3	0	117	**4**	0	121	2	0	6	1	9	304
12:00 PM	7	153	**3**	0	163	2	1	0	0	3	0	**132**	3	0	**135**	**4**	**1**	**10**	**3**	**18**	**319**
12:15 PM	2	146	2	0	150	**3**	1	**2**	1	**7**	**3**	112	2	0	117	3	0	4	0	7	281
12:30 PM	6	144	1	0	151	3	**3**	1	0	7	1	117	2	0	120	1	0	9	2	12	290
Total Volume	22	606	7	0	635	10	5	3	2	20	4	478	11	0	493	10	1	29	6	46	1194
% App. Total	3.5	95.4	1.1	0		50	25	15	10		0.8	97	2.2	0		21.7	2.2	63	13		
PHF	.786	.929	.583	.000	.928	.833	.417	.375	.500	.714	.333	.905	.688	.000	.913	.625	.250	.725	.500	.639	.936
Lights	22	593	7	0	622	10	5	3	0	18	4	473	11	0	488	10	1	28	0	39	1167
% Lights	100	97.9	100	0	98.0	100	100	100	0	90.0	100	99.0	100	0	99.0	100	100	96.6	0	84.8	97.7
Buses	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	1	0	1	6
% Buses	0	0.3	0	0	0.3	0	0	0	0	0	0	0.6	0	0	0.6	0	0	3.4	0	2.2	0.5
Trucks	0	11	0	0	11	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	13
% Trucks	0	1.8	0	0	1.7	0	0	0	0	0	0	0.4	0	0	0.4	0	0	0	0	0	1.1
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.7	2.2	0.1
Pedestrians	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0	5	5	7
% Pedestrians	0	0	0	0	0	0	0	0	100	10.0	0	0	0	0	0	0	0	0	83.3	10.9	0.6

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 3._NYS_Route_9D_and_Beekman_Street_-WKDAY_1107101_09-07-2023
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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					W CHURCH ST From East					NORTH AVE From South					BEEKMAN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	102	58	2	2	164	1	1	0	1	3	0	73	6	0	79	1	2	24	0	27	273
07:15 AM	59	85	0	0	144	0	3	1	3	7	0	71	5	0	76	5	0	33	1	39	266
07:30 AM	55	74	1	0	130	3	3	0	1	7	0	77	6	0	83	2	0	18	1	21	241
07:45 AM	24	110	1	6	141	2	3	1	3	9	1	83	3	0	87	7	2	40	4	53	290
Total	240	327	4	8	579	6	10	2	8	26	1	304	20	0	325	15	4	115	6	140	1070
08:00 AM	63	99	2	1	165	1	3	1	1	6	0	70	8	0	78	6	1	19	0	26	275
08:15 AM	31	125	0	0	156	3	1	2	7	13	0	89	1	2	92	5	2	36	4	47	308
08:30 AM	41	125	0	0	166	0	4	5	3	12	1	108	3	0	112	11	1	18	2	32	322
08:45 AM	36	98	0	0	134	3	1	0	3	7	1	122	4	0	127	7	0	21	1	29	297
Total	171	447	2	1	621	7	9	8	14	38	2	389	16	2	409	29	4	94	7	134	1202
Grand Total	411	774	6	9	1200	13	19	10	22	64	3	693	36	2	734	44	8	209	13	274	2272
Apprch %	34.2	64.5	0.5	0.8		20.3	29.7	15.6	34.4		0.4	94.4	4.9	0.3		16.1	2.9	76.3	4.7		
Total %	18.1	34.1	0.3	0.4	52.8	0.6	0.8	0.4	1	2.8	0.1	30.5	1.6	0.1	32.3	1.9	0.4	9.2	0.6	12.1	
Lights	407	724	6	0	1137	13	19	10	0	42	3	650	33	0	686	40	7	201	0	248	2113
% Lights	99	93.5	100	0	94.8	100	100	100	0	65.6	100	93.8	91.7	0	93.5	90.9	87.5	96.2	0	90.5	93
Buses	3	21	0	0	24	0	0	0	0	0	0	17	3	0	20	3	1	3	0	7	51
% Buses	0.7	2.7	0	0	2	0	0	0	0	0	0	2.5	8.3	0	2.7	6.8	12.5	1.4	0	2.6	2.2
Trucks	1	29	0	0	30	0	0	0	0	0	0	26	0	0	26	1	0	5	0	6	62
% Trucks	0.2	3.7	0	0	2.5	0	0	0	0	0	0	3.8	0	0	3.5	2.3	0	2.4	0	2.2	2.7
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	50	0.1	0	0	0	0	0	0
Pedestrians	0	0	0	9	9	0	0	0	22	22	0	0	0	1	1	0	0	0	13	13	45
% Pedestrians	0	0	0	100	0.8	0	0	0	100	34.4	0	0	0	50	0.1	0	0	0	100	4.7	2

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 3._NYS_Route_9D_and_Beekman_Street_-WKDAY_1107101_09-07-2023
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	NORTH AVE From North					W CHURCH ST From East					NORTH AVE From South					BEEKMAN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00 AM																					
08:00 AM	**63**	99	**2**	**1**	165	1	3	1	1	6	0	70	**8**	0	78	6	1	19	0	26	275
08:15 AM	31	**125**	0	0	156	**3**	1	2	**7**	**13**	0	89	1	**2**	92	5	**2**	**36**	**4**	**47**	308
08:30 AM	41	125	0	0	**166**	0	**4**	**5**	3	12	**1**	108	3	0	112	**11**	1	18	2	32	**322**
08:45 AM	36	98	0	0	134	3	1	0	3	7	1	**122**	4	0	**127**	7	0	21	1	29	297
Total Volume	171	447	2	1	621	7	9	8	14	38	2	389	16	2	409	29	4	94	7	134	1202
% App. Total	27.5	72	0.3	0.2		18.4	23.7	21.1	36.8		0.5	95.1	3.9	0.5		21.6	3	70.1	5.2		
PHF	.679	.894	.250	.250	.935	.583	.563	.400	.500	.731	.500	.797	.500	.250	.805	.659	.500	.653	.438	.713	.933
Lights	169	424	2	0	595	7	9	8	0	24	2	364	15	0	381	27	3	90	0	120	1120
% Lights	98.8	94.9	100	0	95.8	100	100	100	0	63.2	100	93.6	93.8	0	93.2	93.1	75.0	95.7	0	89.6	93.2
Buses	1	10	0	0	11	0	0	0	0	0	0	11	1	0	12	1	1	1	0	3	26
% Buses	0.6	2.2	0	0	1.8	0	0	0	0	0	0	2.8	6.3	0	2.9	3.4	25.0	1.1	0	2.2	2.2
Trucks	1	13	0	0	14	0	0	0	0	0	0	14	0	0	14	1	0	3	0	4	32
% Trucks	0.6	2.9	0	0	2.3	0	0	0	0	0	0	3.6	0	0	3.4	3.4	0	3.2	0	3.0	2.7
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	50.0	0.2	0	0	0	0	0	0.1
Pedestrians	0	0	0	1	1	0	0	0	14	14	0	0	0	1	1	0	0	0	7	7	23
% Pedestrians	0	0	0	100	0.2	0	0	0	100	36.8	0	0	0	50.0	0.2	0	0	0	100	5.2	1.9

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					W CHURCH ST From East					NORTH AVE From South					BEEKMAN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:00 PM	28	106	3	3	140	2	0	0	4	6	1	107	9	0	117	11	1	24	0	36	299
03:15 PM	19	86	2	0	107	1	1	0	0	2	2	135	4	0	141	4	4	55	1	64	314
03:30 PM	25	76	3	0	104	1	1	0	1	3	0	119	5	0	124	6	1	22	1	30	261
03:45 PM	40	113	1	0	154	4	1	1	0	6	1	117	0	0	118	4	1	20	0	25	303
Total	112	381	9	3	505	8	3	1	5	17	4	478	18	0	500	25	7	121	2	155	1177
04:00 PM	24	92	2	5	123	1	2	0	1	4	1	110	6	0	117	5	2	23	2	32	276
04:15 PM	27	114	1	1	143	2	1	0	1	4	2	98	7	0	107	11	3	80	3	97	351
04:30 PM	35	121	0	0	156	0	1	0	0	1	0	98	7	0	105	3	1	28	1	33	295
04:45 PM	33	114	2	0	149	2	3	0	0	5	6	68	8	0	82	9	5	100	1	115	351
Total	119	441	5	6	571	5	7	0	2	14	9	374	28	0	411	28	11	231	7	277	1273
05:00 PM	38	94	1	1	134	2	2	1	1	6	4	111	9	0	124	1	3	31	1	36	300
05:15 PM	23	85	0	0	108	1	0	0	3	4	5	57	4	0	66	9	10	38	0	57	235
05:30 PM	26	101	5	0	132	2	1	1	1	5	10	54	4	0	68	13	3	33	2	51	256
05:45 PM	40	63	1	1	105	3	2	2	3	10	11	27	3	0	41	23	19	20	1	63	219
Total	127	343	7	2	479	8	5	4	8	25	30	249	20	0	299	46	35	122	4	207	1010
06:00 PM	31	87	1	1	120	1	8	2	3	14	8	56	6	0	70	9	6	25	1	41	245
06:15 PM	39	75	1	3	118	3	3	1	0	7	3	61	6	1	71	10	6	68	5	89	285
Grand Total	428	1327	23	15	1793	25	26	8	18	77	54	1218	78	1	1351	118	65	567	19	769	3990
Apprch %	23.9	74	1.3	0.8		32.5	33.8	10.4	23.4		4	90.2	5.8	0.1		15.3	8.5	73.7	2.5		
Total %	10.7	33.3	0.6	0.4	44.9	0.6	0.7	0.2	0.5	1.9	1.4	30.5	2	0	33.9	3	1.6	14.2	0.5	19.3	
Lights	417	1290	22	0	1729	25	26	8	0	59	51	1177	70	0	1298	115	64	559	0	738	3824
% Lights	97.4	97.2	95.7	0	96.4	100	100	100	0	76.6	94.4	96.6	89.7	0	96.1	97.5	98.5	98.6	0	96	95.8
Buses	8	16	0	0	24	0	0	0	0	0	2	16	7	0	25	2	0	4	0	6	55
% Buses	1.9	1.2	0	0	1.3	0	0	0	0	0	3.7	1.3	9	0	1.9	1.7	0	0.7	0	0.8	1.4
Trucks	3	21	1	0	25	0	0	0	0	0	1	25	1	0	27	1	1	4	0	6	58
% Trucks	0.7	1.6	4.3	0	1.4	0	0	0	0	0	1.9	2.1	1.3	0	2	0.8	1.5	0.7	0	0.8	1.5
Bicycles on Crosswalk	0	0	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	5	5	7
% Bicycles on Crosswalk	0	0	0	6.7	0.1	0	0	0	5.6	1.3	0	0	0	0	0	0	0	0	26.3	0.7	0.2
Pedestrians	0	0	0	14	14	0	0	0	17	17	0	0	0	1	1	0	0	0	14	14	46
% Pedestrians	0	0	0	93.3	0.8	0	0	0	94.4	22.1	0	0	0	100	0.1	0	0	0	73.7	1.8	1.2

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 3._NYS_Route_9D_and_Beekman_Street_-WKDAY_1107101_09-07-2023
Site Code :
Start Date : 9/7/2023
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	NORTH AVE From North					W CHURCH ST From East					NORTH AVE From South					BEEKMAN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	27	114	1	**1**	143	**2**	1	0	**1**	4	2	98	7	0	107	**11**	3	80	**3**	97	**351**
04:30 PM	35	**121**	0	0	**156**	0	1	0	0	1	0	98	7	0	105	3	1	28	1	33	295
04:45 PM	33	114	**2**	0	149	2	**3**	0	0	5	**6**	68	8	0	82	9	**5**	**100**	1	**115**	351
05:00 PM	**38**	94	1	1	134	2	2	**1**	1	**6**	4	**111**	**9**	0	**124**	1	3	31	1	36	300
Total Volume	133	443	4	2	582	6	7	1	2	16	12	375	31	0	418	24	12	239	6	281	1297
% App. Total	22.9	76.1	0.7	0.3		37.5	43.8	6.2	12.5		2.9	89.7	7.4	0		8.5	4.3	85.1	2.1		
PHF	.875	.915	.500	.500	.933	.750	.583	.250	.500	.667	.500	.845	.861	.000	.843	.545	.600	.598	.500	.611	.924
Lights	130	431	4	0	565	6	7	1	0	14	12	364	28	0	404	24	12	236	0	272	1255
% Lights	97.7	97.3	100	0	97.1	100	100	100	0	87.5	100	97.1	90.3	0	96.7	100	100	98.7	0	96.8	96.8
Buses	3	2	0	0	5	0	0	0	0	0	0	4	2	0	6	0	0	2	0	2	13
% Buses	2.3	0.5	0	0	0.9	0	0	0	0	0	0	1.1	6.5	0	1.4	0	0	0.8	0	0.7	1.0
Trucks	0	10	0	0	10	0	0	0	0	0	0	7	1	0	8	0	0	1	0	1	19
% Trucks	0	2.3	0	0	1.7	0	0	0	0	0	0	1.9	3.2	0	1.9	0	0	0.4	0	0.4	1.5
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16.7	0.4	0.1
Pedestrians	0	0	0	2	2	0	0	0	2	2	0	0	0	0	0	0	0	0	5	5	9
% Pedestrians	0	0	0	100	0.3	0	0	0	100	12.5	0	0	0	0	0	0	0	0	83.3	1.8	0.7

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 3._NYS_Route_9D_and_Beekman_Street_-SAT_1107102_09-09-2023
Site Code :
Start Date : 9/9/2023
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	NORTH AVE From North					W CHURCH ST From East					NORTH AVE From South					BEEKMAN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
11:00 AM	61	97	2	0	160	2	6	1	0	9	2	88	8	0	98	4	1	29	2	36	303
11:15 AM	34	87	0	0	121	0	3	2	2	7	2	87	7	0	96	3	0	15	1	19	243
11:30 AM	30	102	1	1	134	0	1	3	0	4	0	94	8	0	102	15	0	32	0	47	287
11:45 AM	44	104	3	0	151	1	2	2	0	5	1	98	8	0	107	8	2	22	3	35	298
Total	169	390	6	1	566	3	12	8	2	25	5	367	31	0	403	30	3	98	6	137	1131
12:00 PM	47	101	1	1	150	2	0	0	1	3	0	89	14	0	103	9	1	41	1	52	308
12:15 PM	48	101	2	2	153	2	1	2	2	7	0	98	11	0	109	5	1	15	0	21	290
12:30 PM	44	94	4	0	142	3	2	0	0	5	0	72	9	0	81	12	3	49	2	66	294
12:45 PM	32	111	3	4	150	2	4	0	6	12	0	97	7	1	105	9	0	29	0	38	305
Total	171	407	10	7	595	9	7	2	9	27	0	356	41	1	398	35	5	134	3	177	1197
01:00 PM	35	96	0	1	132	4	0	1	1	6	1	88	8	1	98	8	0	32	1	41	277
01:15 PM	44	92	2	6	144	2	0	3	8	13	0	89	12	0	101	7	2	31	1	41	299
01:30 PM	45	117	4	0	166	1	0	4	0	5	1	100	8	2	111	13	0	46	4	63	345
01:45 PM	55	90	1	4	150	0	3	1	0	4	0	99	17	0	116	4	3	31	0	38	308
Total	179	395	7	11	592	7	3	9	9	28	2	376	45	3	426	32	5	140	6	183	1229
Grand Total	519	1192	23	19	1753	19	22	19	20	80	7	1099	117	4	1227	97	13	372	15	497	3557
Apprch %	29.6	68	1.3	1.1		23.8	27.5	23.8	25		0.6	89.6	9.5	0.3		19.5	2.6	74.8	3		
Total %	14.6	33.5	0.6	0.5	49.3	0.5	0.6	0.5	0.6	2.2	0.2	30.9	3.3	0.1	34.5	2.7	0.4	10.5	0.4	14	
Lights	513	1175	23	0	1711	19	22	19	0	60	7	1081	110	0	1198	97	13	370	0	480	3449
% Lights	98.8	98.6	100	0	97.6	100	100	100	0	75	100	98.4	94	0	97.6	100	100	99.5	0	96.6	97
Buses	2	5	0	0	7	0	0	0	0	0	0	4	7	0	11	0	0	2	0	2	20
% Buses	0.4	0.4	0	0	0.4	0	0	0	0	0	0	0.4	6	0	0.9	0	0	0.5	0	0.4	0.6
Trucks	4	12	0	0	16	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	30
% Trucks	0.8	1	0	0	0.9	0	0	0	0	0	0	1.3	0	0	1.1	0	0	0	0	0	0.8
Bicycles on Crosswalk	0	0	0	1	1	0	0	0	0	0	0	0	0	1	1	0	0	0	2	2	4
% Bicycles on Crosswalk	0	0	0	5.3	0.1	0	0	0	0	0	0	0	0	25	0.1	0	0	0	13.3	0.4	0.1
Pedestrians	0	0	0	18	18	0	0	0	20	20	0	0	0	3	3	0	0	0	13	13	54
% Pedestrians	0	0	0	94.7	1	0	0	0	100	25	0	0	0	75	0.2	0	0	0	86.7	2.6	1.5

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 3._NYS_Route_9D_and_Beekman_Street_-SAT_1107102_09-09-2023
Site Code :
Start Date : 9/9/2023
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	NORTH AVE From North					W CHURCH ST From East					NORTH AVE From South					BEEKMAN ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	35	96	0	1	132	**4**	0	1	1	6	**1**	88	8	1	98	8	0	32	1	41	277
01:15 PM	44	92	2	**6**	144	2	0	3	**8**	**13**	0	89	12	0	101	7	2	31	1	41	299
01:30 PM	45	**117**	**4**	0	**166**	1	0	**4**	0	5	1	**100**	8	**2**	111	**13**	0	**46**	**4**	**63**	**345**
01:45 PM	**55**	90	1	4	150	0	**3**	1	0	4	0	99	**17**	0	**116**	4	**3**	31	0	38	308
Total Volume	179	395	7	11	592	7	3	9	9	28	2	376	45	3	426	32	5	140	6	183	1229
% App. Total	30.2	66.7	1.2	1.9		25	10.7	32.1	32.1		0.5	88.3	10.6	0.7		17.5	2.7	76.5	3.3		
PHF	.814	.844	.438	.458	.892	.438	.250	.563	.281	.538	.500	.940	.662	.375	.918	.615	.417	.761	.375	.726	.891
Lights	179	391	7	0	577	7	3	9	0	19	2	368	44	0	414	32	5	140	0	177	1187
% Lights	100	99.0	100	0	97.5	100	100	100	0	67.9	100	97.9	97.8	0	97.2	100	100	100	0	96.7	96.6
Buses	0	2	0	0	2	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	4
% Buses	0	0.5	0	0	0.3	0	0	0	0	0	0	0.3	2.2	0	0.5	0	0	0	0	0	0.3
Trucks	0	2	0	0	2	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	9
% Trucks	0	0.5	0	0	0.3	0	0	0	0	0	0	1.9	0	0	1.6	0	0	0	0	0	0.7
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	1	2
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	33.3	0.2	0	0	0	16.7	0.5	0.2
Pedestrians	0	0	0	11	11	0	0	0	9	9	0	0	0	2	2	0	0	0	5	5	27
% Pedestrians	0	0	0	100	1.9	0	0	0	100	32.1	0	0	0	66.7	0.5	0	0	0	83.3	2.7	2.2

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 4._Beekman_Street_and_High_Street_-WKDAY_1107104_09-07-2023
Site Code :
Start Date : 9/7/2023
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	BEEKMAN ST From North					From East					BEEKMAN ST From South					HIGH ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:00 AM	0	105	0	0	105	0	0	0	0	0	0	27	0	1	28	0	0	0	1	1	134
07:15 AM	0	72	0	0	72	0	0	0	0	0	0	39	0	0	39	0	0	0	3	3	114
07:30 AM	0	59	0	0	59	0	0	0	0	0	0	23	0	1	24	0	0	0	2	2	85
07:45 AM	0	30	0	1	31	0	0	0	0	0	0	46	1	1	48	1	0	1	7	9	88
Total	0	266	0	1	267	0	0	0	0	0	0	135	1	3	139	1	0	1	13	15	421
08:00 AM	0	71	0	0	71	0	0	0	0	0	0	26	0	1	27	1	0	1	2	4	102
08:15 AM	0	36	0	0	36	0	0	0	0	0	0	39	0	0	39	0	0	0	1	1	76
08:30 AM	1	47	0	6	54	0	0	0	0	0	0	30	0	0	30	1	0	0	6	7	91
08:45 AM	0	38	0	0	38	0	0	0	0	0	0	27	0	2	29	0	0	1	1	2	69
Total	1	192	0	6	199	0	0	0	0	0	0	122	0	3	125	2	0	2	10	14	338
Grand Total	1	458	0	7	466	0	0	0	0	0	0	257	1	6	264	3	0	3	23	29	759
Apprch %	0.2	98.3	0	1.5		0	0	0	0		0	97.3	0.4	2.3		10.3	0	10.3	79.3		
Total %	0.1	60.3	0	0.9	61.4	0	0	0	0	0	0	33.9	0.1	0.8	34.8	0.4	0	0.4	3	3.8	
Lights	1	450	0	0	451	0	0	0	0	0	0	246	1	0	247	3	0	3	0	6	704
% Lights	100	98.3	0	0	96.8	0	0	0	0	0	0	95.7	100	0	93.6	100	0	100	0	20.7	92.8
Buses	0	7	0	0	7	0	0	0	0	0	0	7	0	0	7	0	0	0	0	0	14
% Buses	0	1.5	0	0	1.5	0	0	0	0	0	0	2.7	0	0	2.7	0	0	0	0	0	1.8
Trucks	0	1	0	0	1	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	5
% Trucks	0	0.2	0	0	0.2	0	0	0	0	0	0	1.6	0	0	1.5	0	0	0	0	0	0.7
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.3	3.4	0.1
Pedestrians	0	0	0	7	7	0	0	0	0	0	0	0	0	6	6	0	0	0	22	22	35
% Pedestrians	0	0	0	100	1.5	0	0	0	0	0	0	0	0	100	2.3	0	0	0	95.7	75.9	4.6

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 4._Beekman_Street_and_High_Street_-WKDAY_1107104_09-07-2023
Site Code :
Start Date : 9/7/2023

	BEEKMAN ST From North					From East					BEEKMAN ST From South					HIGH ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	0	**105**	0	0	**105**	0	0	0	0	0	0	27	0	**1**	28	0	0	0	1	1	**134**
07:15 AM	0	72	0	0	72	0	0	0	0	0	0	39	0	0	39	0	0	0	3	3	114
07:30 AM	0	59	0	0	59	0	0	0	0	0	0	23	0	1	24	0	0	0	2	2	85
07:45 AM	0	30	0	**1**	31	0	0	0	0	0	0	**46**	**1**	1	**48**	**1**	0	**1**	**7**	**9**	88
Total Volume	0	266	0	1	267	0	0	0	0	0	0	135	1	3	139	1	0	1	13	15	421
% App. Total	0	99.6	0	0.4		0	0	0	0		0	97.1	0.7	2.2		6.7	0	6.7	86.7		
PHF	.000	.633	.000	.250	.636	.000	.000	.000	.000	.000	.000	.734	.250	.750	.724	.250	.000	.250	.464	.417	.785
Lights	0	261	0	0	261	0	0	0	0	0	0	130	1	0	131	1	0	1	0	2	394
% Lights	0	98.1	0	0	97.8	0	0	0	0	0	0	96.3	100	0	94.2	100	0	100	0	13.3	93.6
Buses	0	5	0	0	5	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	9
% Buses	0	1.9	0	0	1.9	0	0	0	0	0	0	3.0	0	0	2.9	0	0	0	0	0	2.1
Trucks	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0.7	0	0	0.7	0	0	0	0	0	0.2
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.7	6.7	0.2
Pedestrians	0	0	0	1	1	0	0	0	0	0	0	0	0	3	3	0	0	0	12	12	16
% Pedestrians	0	0	0	100	0.4	0	0	0	0	0	0	0	0	100	2.2	0	0	0	92.3	80.0	3.8

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 4._Beekman_Street_and_High_Street_-WKDAY_1107104_09-07-2023
Site Code :
Start Date : 9/7/2023
Page No : 1

Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	BEEKMAN ST From North					From East					BEEKMAN ST From South					HIGH ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
03:00 PM	0	33	0	0	33	0	0	0	0	0	0	34	0	0	34	0	0	2	1	3	70
03:15 PM	0	20	0	0	20	0	0	0	0	0	0	62	0	0	62	0	0	1	4	5	87
03:30 PM	1	29	0	2	32	0	0	0	0	0	0	30	1	0	31	1	0	0	3	4	67
03:45 PM	1	33	0	0	34	0	0	0	0	0	0	23	0	0	23	0	0	0	0	0	57
Total	2	115	0	2	119	0	0	0	0	0	0	149	1	0	150	1	0	3	8	12	281
04:00 PM	1	33	0	1	35	0	0	0	0	0	0	26	0	0	26	1	0	0	6	7	68
04:15 PM	1	37	0	2	40	0	0	0	0	0	0	89	0	1	90	3	0	0	2	5	135
04:30 PM	0	45	0	2	47	0	0	0	0	0	0	27	0	0	27	1	0	0	2	3	77
04:45 PM	1	41	0	2	44	0	0	0	0	0	0	114	0	0	114	1	0	2	0	3	161
Total	3	156	0	7	166	0	0	0	0	0	0	256	0	1	257	6	0	2	10	18	441
05:00 PM	0	48	0	1	49	0	0	0	0	0	0	30	0	0	30	1	0	0	3	4	83
05:15 PM	0	28	0	0	28	0	0	0	0	0	0	82	1	0	83	2	0	1	0	3	114
05:30 PM	1	30	0	0	31	0	0	0	0	0	0	44	1	0	45	1	0	0	1	2	78
05:45 PM	0	45	0	0	45	0	0	0	0	0	0	57	3	2	62	2	0	0	0	2	109
Total	1	151	0	1	153	0	0	0	0	0	0	213	5	2	220	6	0	1	4	11	384
06:00 PM	1	46	0	0	47	0	0	0	0	0	0	21	1	0	22	1	0	0	2	3	72
06:15 PM	1	44	0	0	45	0	0	0	0	0	0	83	0	0	83	1	0	0	5	6	134
Grand Total	8	512	0	10	530	0	0	0	0	0	0	722	7	3	732	15	0	6	29	50	1312
Apprch %	1.5	96.6	0	1.9		0	0	0	0		0	98.6	1	0.4		30	0	12	58		
Total %	0.6	39	0	0.8	40.4	0	0	0	0	0	0	55	0.5	0.2	55.8	1.1	0	0.5	2.2	3.8	
Lights	8	496	0	0	504	0	0	0	0	0	0	710	7	0	717	15	0	6	0	21	1242
% Lights	100	96.9	0	0	95.1	0	0	0	0	0	0	98.3	100	0	98	100	0	100	0	42	94.7
Buses	0	14	0	0	14	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	20
% Buses	0	2.7	0	0	2.6	0	0	0	0	0	0	0.8	0	0	0.8	0	0	0	0	0	1.5
Trucks	0	2	0	0	2	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	8
% Trucks	0	0.4	0	0	0.4	0	0	0	0	0	0	0.8	0	0	0.8	0	0	0	0	0	0.6
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	5
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17.2	10	0.4
Pedestrians	0	0	0	10	10	0	0	0	0	0	0	0	0	3	3	0	0	0	24	24	37
% Pedestrians	0	0	0	100	1.9	0	0	0	0	0	0	0	0	100	0.4	0	0	0	82.8	48	2.8

Colliers Engineering & Design

400 Columbus Avenue - Suite 180E
Valhalla, New York, 10595
Accelerating Success

File Name : 4._Beekman_Street_and_High_Street_-WKDAY_1107104_09-07-2023
Site Code :
Start Date : 9/7/2023
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	BEEKMAN ST From North					From East					BEEKMAN ST From South					HIGH ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	**1**	37	0	**2**	40	0	0	0	0	0	0	89	0	**1**	90	**3**	0	0	2	**5**	135
04:30 PM	0	45	0	2	47	0	0	0	0	0	0	27	0	0	27	1	0	0	2	3	77
04:45 PM	1	41	0	2	44	0	0	0	0	0	0	**114**	0	0	**114**	1	0	**2**	0	3	**161**
05:00 PM	0	**48**	0	1	**49**	0	0	0	0	0	0	30	0	0	30	1	0	0	**3**	4	83
Total Volume	2	171	0	7	180	0	0	0	0	0	0	260	0	1	261	6	0	2	7	15	456
% App. Total	1.1	95	0	3.9		0	0	0	0		0	99.6	0	0.4		40	0	13.3	46.7		
PHF	.500	.891	.000	.875	.918	.000	.000	.000	.000	.000	.000	.570	.000	.250	.572	.500	.000	.250	.583	.750	.708
Lights	2	165	0	0	167	0	0	0	0	0	0	259	0	0	259	6	0	2	0	8	434
% Lights	100	96.5	0	0	92.8	0	0	0	0	0	0	99.6	0	0	99.2	100	0	100	0	53.3	95.2
Buses	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	6
% Buses	0	2.9	0	0	2.8	0	0	0	0	0	0	0.4	0	0	0.4	0	0	0	0	0	1.3
Trucks	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Trucks	0	0.6	0	0	0.6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14.3	6.7	0.2
Pedestrians	0	0	0	7	7	0	0	0	0	0	0	0	0	1	1	0	0	0	6	6	14
% Pedestrians	0	0	0	100	3.9	0	0	0	0	0	0	0	0	100	0.4	0	0	0	85.7	40.0	3.1

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Valhalla, New York, 10595

Accelerating Success

File Name : 4._Beekman_Street_and_High_Street_-SAT_1107105_09-09-2023
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Start Date : 9/9/2023
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Groups Printed- Lights - Buses - Trucks - Bicycles on Crosswalk - Pedestrians

	BEEKMAN ST From North					From East					BEEKMAN ST From South					HIGH ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
11:00 AM	1	78	0	1	80	0	0	0	0	0	0	34	0	0	34	1	0	1	1	3	117
11:15 AM	0	44	0	0	44	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	62
11:30 AM	0	38	0	5	43	0	0	0	0	0	0	48	0	2	50	0	0	0	9	9	102
11:45 AM	0	52	0	0	52	0	0	0	0	0	0	31	0	0	31	0	0	0	2	2	85
Total	1	212	0	6	219	0	0	0	0	0	0	131	0	2	133	1	0	1	12	14	366
12:00 PM	0	61	0	0	61	0	0	0	0	0	0	47	0	0	47	0	0	1	0	1	109
12:15 PM	1	61	0	0	62	0	0	0	0	0	0	24	0	0	24	0	0	0	2	2	88
12:30 PM	0	57	0	0	57	0	0	0	0	0	0	61	0	0	61	1	0	0	1	2	120
12:45 PM	1	42	0	4	47	0	0	0	0	0	0	39	0	0	39	0	0	1	10	11	97
Total	2	221	0	4	227	0	0	0	0	0	0	171	0	0	171	1	0	2	13	16	414
01:00 PM	0	43	0	0	43	0	0	0	0	0	0	37	0	0	37	1	0	1	0	2	82
01:15 PM	0	55	0	0	55	0	0	0	0	0	0	44	0	1	45	0	0	0	4	4	104
01:30 PM	0	52	0	1	53	0	0	0	0	0	0	55	0	2	57	0	0	0	5	5	115
01:45 PM	0	78	0	0	78	0	0	0	0	0	0	40	0	1	41	0	0	0	4	4	123
Total	0	228	0	1	229	0	0	0	0	0	0	176	0	4	180	1	0	1	13	15	424
Grand Total	3	661	0	11	675	0	0	0	0	0	0	478	0	6	484	3	0	4	38	45	1204
Apprch %	0.4	97.9	0	1.6		0	0	0	0		0	98.8	0	1.2		6.7	0	8.9	84.4		
Total %	0.2	54.9	0	0.9	56.1	0	0	0	0	0	0	39.7	0	0.5	40.2	0.2	0	0.3	3.2	3.7	
Lights	2	648	0	0	650	0	0	0	0	0	0	476	0	0	476	3	0	4	0	7	1133
% Lights	66.7	98	0	0	96.3	0	0	0	0	0	0	99.6	0	0	98.3	100	0	100	0	15.6	94.1
Buses	0	9	0	0	9	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	11
% Buses	0	1.4	0	0	1.3	0	0	0	0	0	0	0.4	0	0	0.4	0	0	0	0	0	0.9
Trucks	1	4	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
% Trucks	33.3	0.6	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.6	2.2	0.1
Pedestrians	0	0	0	11	11	0	0	0	0	0	0	0	0	6	6	0	0	0	37	37	54
% Pedestrians	0	0	0	100	1.6	0	0	0	0	0	0	0	0	100	1.2	0	0	0	97.4	82.2	4.5

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Accelerating Success

File Name : 4._Beekman_Street_and_High_Street_-SAT_1107105_09-09-2023
Site Code :
Start Date : 9/9/2023
Page No : 2

	BEEKMAN ST From North					From East					BEEKMAN ST From South					HIGH ST From West					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 01:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 01:00 PM																					
01:00 PM	0	43	0	0	43	0	0	0	0	0	0	37	0	0	37	**1**	0	**1**	0	2	82
01:15 PM	0	55	0	0	55	0	0	0	0	0	0	44	0	1	45	0	0	0	4	4	104
01:30 PM	0	52	0	**1**	53	0	0	0	0	0	0	**55**	0	**2**	**57**	0	0	0	**5**	**5**	115
01:45 PM	0	**78**	0	0	**78**	0	0	0	0	0	0	40	0	1	41	0	0	0	4	4	**123**
Total Volume	0	228	0	1	229	0	0	0	0	0	0	176	0	4	180	1	0	1	13	15	424
% App. Total	0	99.6	0	0.4		0	0	0	0		0	97.8	0	2.2		6.7	0	6.7	86.7		
PHF	.000	.731	.000	.250	.734	.000	.000	.000	.000	.000	.000	.800	.000	.500	.789	.250	.000	.250	.650	.750	.862
Lights	0	227	0	0	227	0	0	0	0	0	0	176	0	0	176	1	0	1	0	2	405
% Lights	0	99.6	0	0	99.1	0	0	0	0	0	0	100	0	0	97.8	100	0	100	0	13.3	95.5
Buses	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
% Buses	0	0.4	0	0	0.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2
Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	1	1	0	0	0	0	0	0	0	0	4	4	0	0	0	13	13	18
% Pedestrians	0	0	0	100	0.4	0	0	0	0	0	0	0	0	100	2.2	0	0	0	100	86.7	4.2

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NYSDOT VOLUME DATA SUMMARY

ROADWAY: BEEKMAN STREET
SEGMENT: FROM NYS ROUTE 9D TO RED FLYNN DRIVE
LOCATION: 275' E OF RIVER ST
START DATE OF COUNT: Tuesday, April 24, 2018
NYSDOT COUNT STATION: 821009
FUNCTIONAL CLASS: 17 - URBAN MAJOR COLLECTOR
FACTOR GROUP: 30
SEASONAL FACTOR: 1.062

TIME PERIOD		DIRECTIONAL VOLUMES		TOTAL VOLUME
START	FINISH	EASTBOUND	WESTBOUND	
12:00 AM	1:00 AM	53	6	59
1:00 AM	2:00 AM	22	4	26
2:00 AM	3:00 AM	12	1	13
3:00 AM	4:00 AM	7	5	12
4:00 AM	5:00 AM	24	101	125
5:00 AM	6:00 AM	41	120	161
6:00 AM	7:00 AM	90	196	286
7:00 AM	8:00 AM	152	132	284
8:00 AM	9:00 AM	113	88	201
9:00 AM	10:00 AM	79	59	138
10:00 AM	11:00 AM	84	68	152
11:00 AM	12:00 PM	79	54	133
12:00 PM	1:00 PM	81	58	139
1:00 PM	2:00 PM	85	70	155
2:00 PM	3:00 PM	94	63	157
3:00 PM	4:00 PM	128	67	195
4:00 PM	5:00 PM	239	77	316
5:00 PM	6:00 PM	252	77	329
6:00 PM	7:00 PM	356	93	449
7:00 PM	8:00 PM	273	68	341
8:00 PM	9:00 PM	181	56	237
9:00 PM	10:00 PM	103	37	140
10:00 PM	11:00 PM	82	22	104
11:00 PM	12:00 AM	62	14	76
AVERAGE WEEKDAY DAILY TRAFFIC		**2692**	**1536**	**4228**
	AADT	**2535**	**1446**	**3981**

NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

NYSDOT CLASSIFICATION DATA SUMMARY

ROADWAY: BEEKMAN STREET
SEGMENT: FROM NYS ROUTE 9D TO RED FLYNN DRIVE
LOCATION: 275' E OF RIVER ST
START DATE OF COUNT: Tuesday, April 24, 2018
NYSDOT COUNT STATION: 821009
FUNCTIONAL CLASS: 17 - URBAN MAJOR COLLECTOR
FACTOR GROUP: 30

VEHICLE CLASS	DIRECTIONAL VOLUMES		TOTAL VEHICLES	TOTAL AXLES
	EASTBOUND	WESTBOUND		
F1	0	5	5	10
F2	2369	1352	3721	7442
F3	255	142	397	794
F4	20	6	26	65
F5	27	13	40	80
F6	7	5	12	36
F7	0	3	3	12
F8	1	0	1	4
F9	4	0	4	20
F10	0	3	3	18
F11	0	0	0	0
F12	0	0	0	0
F13	0	0	0	0
AVERAGE WEEKDAY TOTAL	**2683**	**1529**	**4212**	**8481**

	EASTBOUND	WESTBOUND	TOTAL
% TRUCKS & BUSES (F3 - F13)	12%	11%	12%
% HEAVY VEHICLES (F4 - F13)	2%	2%	2%
% F3 - F7	2%	2%	2%
% F8 - F13	0%	0%	0%
% F1	0%	0%	0%
% F2	88%	88%	88%
% F3	10%	9%	9%
% F4	1%	0%	1%
% F5 - F7	1%	1%	1%

VEHICLE CLASSIFICATION CODES:

- **F1** MOTORCYCLES
- **F2** AUTOS (INCLUDING THOSE HAULING TRAILERS)
- **F3** 2 AXLE, 4-TIRE PICKUPS, VANS, MOTORHOMES (INCLUDING THOSE HAULING TRAILERS)
- **F4** BUSES
- **F5** 2 AXLE, 6-TIRE SINGLE UNIT TRUCKS
- **F6** 3 AXLE SINGLE UNIT TRUCKS
- **F7** 4 OR MORE AXLE SINGLE UNIT TRUCKS
- **F8** 4 OR LESS AXLE VEHICLES, ONE UNIT IS A TRUCK
- **F9** 5 AXLE DOUBLE UNIT VEHICLES, ONE UNIT IS A TRUCK
- **F10** 6 OR MORE AXLE DOUBLE UNIT VEHICLES, ONE UNIT IS A TRUCK
- **F11** 5 OR LESS AXLE MULTI-UNIT TRUCKS
- **F12** 6 AXLE MULTI UNIT TRUCKS
- **F13** 7 OR MORE AXLE MULTI-UNIT TRUCKS

NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

NYSDOT SPEED DATA SUMMARY

ROADWAY: BEEKMAN STREET
SEGMENT: FROM NYS ROUTE 9D TO RED FLYNN DRIVE
LOCATION: 275' E OF RIVER ST
START DATE OF COUNT: Tuesday, April 24, 2018
NYSDOT COUNT STATION: 821009
FUNCTIONAL CLASS: 17 - URBAN MAJOR COLLECTOR
POSTED SPEED LIMIT: 30
FACTOR GROUP: 30

SPEEDS (MPH)	DIRECTIONAL VOLUMES		TOTAL VOLUME
	EASTBOUND	WESTBOUND	
0 - 20.0	97	14	111
20.1 - 25.0	323	40	363
25.1 - 30.0	1129	262	1391
30.1 - 35.0	896	690	1586
35.1 - 40.0	206	423	629
40.1 - 45.0	33	95	128
45.1 - 50.0	1	13	14
50.1 - 55.0	0	0	0
55.1 - 60.0	0	0	0
60.1 - 65.0	0	0	0
65.1 - 70.0	0	0	0
70.1 - 75.0	0	0	0
75.1 - 80.0	0	0	0
80.1+	0	0	0
UNCLASSIFIED	0	0	0
AVERAGE SPEED (MPH)	**28**	**32**	**29**
50TH PERCENTILE SPEED (MPH)	**29**	**33**	**31**
85TH PERCENTILE SPEED (MPH)	**34**	**39**	**36**

NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

Colliers Engineering & Design

NYSDOT VOLUME DATA SUMMARY

ROADWAY: NYS ROUTE 9D
SEGMENT: FROM MAIN STREET TO RTS I-84 AND 52 UNDER
LOCATION: 55' S OF VAN NESS RD
START DATE OF COUNT: Monday, May 6, 2019
NYSDOT COUNT STATION: 820021
FUNCTIONAL CLASS: 16 - URBAN MINOR ARTERIAL
FACTOR GROUP: 30
SEASONAL FACTOR: 1.089

TIME PERIOD		DIRECTIONAL VOLUMES		TOTAL VOLUME
START	FINISH	NORTHBOUND	SOUTHBOUND	
12:00 AM	1:00 AM	100	78	178
1:00 AM	2:00 AM	46	42	88
2:00 AM	3:00 AM	33	30	63
3:00 AM	4:00 AM	28	38	66
4:00 AM	5:00 AM	87	254	341
5:00 AM	6:00 AM	221	426	647
6:00 AM	7:00 AM	482	839	1321
7:00 AM	8:00 AM	798	930	1728
8:00 AM	9:00 AM	816	781	1597
9:00 AM	10:00 AM	599	599	1198
10:00 AM	11:00 AM	562	546	1108
11:00 AM	12:00 PM	536	535	1071
12:00 PM	1:00 PM	625	605	1230
1:00 PM	2:00 PM	643	644	1287
2:00 PM	3:00 PM	741	686	1427
3:00 PM	4:00 PM	1018	746	1764
4:00 PM	5:00 PM	1021	852	1873
5:00 PM	6:00 PM	996	896	1892
6:00 PM	7:00 PM	995	801	1796
7:00 PM	8:00 PM	745	600	1345
8:00 PM	9:00 PM	588	465	1053
9:00 PM	10:00 PM	383	380	763
10:00 PM	11:00 PM	315	235	550
11:00 PM	12:00 AM	180	150	330
AVERAGE WEEKDAY DAILY TRAFFIC		**12558**	**12158**	**24716**
	AADT	**11532**	**11164**	**22696**

NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

NYSDOT CLASSIFICATION DATA SUMMARY

ROADWAY: NYS ROUTE 9D
SEGMENT: FROM MAIN STREET TO RTS I-84 AND 52 UNDER
LOCATION: 55' S OF VAN NESS RD
START DATE OF COUNT: Monday, May 6, 2019
NYSDOT COUNT STATION: 820021
FUNCTIONAL CLASS: 16 - URBAN MINOR ARTERIAL
FACTOR GROUP: 30

VEHICLE CLASS	DIRECTIONAL VOLUMES		TOTAL VEHICLES	TOTAL AXLES
	NORTHBOUND	SOUTHBOUND		
F1	54	48	102	204
F2	10789	10027	20816	41632
F3	1279	1569	2848	5696
F4	94	93	187	468
F5	223	260	483	966
F6	42	37	79	237
F7	8	9	17	68
F8	17	17	34	119
F9	21	19	40	200
F10	3	11	14	84
F11	0	0	0	0
F12	0	0	0	0
F13	0	2	2	18
AVERAGE WEEKDAY TOTAL	**12530**	**12092**	**24622**	**49691**

	NORTHBOUND	SOUTHBOUND	TOTAL
% TRUCKS & BUSES (F3 - F13)	13%	17%	15%
% HEAVY VEHICLES (F4 - F13)	3%	4%	3%
% F3 - F7	3%	3%	3%
% F8 - F13	0%	0%	0%
% F1	0%	0%	0%
% F2	86%	83%	85%
% F3	10%	13%	12%
% F4	1%	1%	1%
% F5 - F7	2%	3%	2%

VEHICLE CLASSIFICATION CODES:

- **F1** MOTORCYCLES
- **F2** AUTOS (INCLUDING THOSE HAULING TRAILERS)
- **F3** 2 AXLE, 4-TIRE PICKUPS, VANS, MOTORHOMES (INCLUDING THOSE HAULING TRAILERS)
- **F4** BUSES
- **F5** 2 AXLE, 6-TIRE SINGLE UNIT TRUCKS
- **F6** 3 AXLE SINGLE UNIT TRUCKS
- **F7** 4 OR MORE AXLE SINGLE UNIT TRUCKS
- **F8** 4 OR LESS AXLE VEHICLES, ONE UNIT IS A TRUCK
- **F9** 5 AXLE DOUBLE UNIT VEHICLES, ONE UNIT IS A TRUCK
- **F10** 6 OR MORE AXLE DOUBLE UNIT VEHICLES, ONE UNIT IS A TRUCK
- **F11** 5 OR LESS AXLE MULTI-UNIT TRUCKS
- **F12** 6 AXLE MULTI UNIT TRUCKS
- **F13** 7 OR MORE AXLE MULTI-UNIT TRUCKS

NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

NYSDOT SPEED DATA SUMMARY

ROADWAY: NYS ROUTE 9D
SEGMENT: FROM MAIN STREET TO RTS I-84 AND 52 UNDER
LOCATION: 55' S OF VAN NESS RD
START DATE OF COUNT: Monday, May 6, 2019
NYSDOT COUNT STATION: 820021
FUNCTIONAL CLASS: 16 - URBAN MINOR ARTERIAL
POSTED SPEED LIMIT: 30
FACTOR GROUP: 30

SPEEDS (MPH)	DIRECTIONAL VOLUMES		TOTAL VOLUME
	NORTHBOUND	SOUTHBOUND	
0 - 20.0	985	230	1215
20.1 - 25.0	551	455	1006
25.1 - 30.0	1100	1690	2790
30.1 - 35.0	3426	4619	8045
35.1 - 40.0	4343	3865	8208
40.1 - 45.0	1716	1102	2818
45.1 - 50.0	344	166	510
50.1 - 55.0	73	16	89
55.1 - 60.0	14	2	16
60.1 - 65.0	1	0	1
65.1 - 70.0	1	0	1
70.1 - 75.0	1	0	1
75.1 - 80.0	0	0	0
80.1+	0	0	0
UNCLASSIFIED	0	0	0
AVERAGE SPEED (MPH)	**31**	**32**	**32**
50TH PERCENTILE SPEED (MPH)	**35**	**34**	**35**
85TH PERCENTILE SPEED (MPH)	**41**	**39**	**40**

NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

Colliers Engineering & Design

NYSDOT VOLUME DATA SUMMARY

ROADWAY: VERPLANCK AVENUE
SEGMENT: FROM FISHKILL AVENUE TO NYS ROUTE 9D ARTERIAL
LOCATION: 120' E OF N WALNUT ST
START DATE OF COUNT: Tuesday, May 14, 2019
NYSDOT COUNT STATION: 822024
FUNCTIONAL CLASS: 17 - URBAN MAJOR COLLECTOR
FACTOR GROUP: 30
SEASONAL FACTOR: 1.089

TIME PERIOD		DIRECTIONAL VOLUMES		TOTAL VOLUME
START	FINISH	EASTBOUND	WESTBOUND	
12:00 AM	1:00 AM	24	26	50
1:00 AM	2:00 AM	14	16	30
2:00 AM	3:00 AM	10	8	18
3:00 AM	4:00 AM	7	12	19
4:00 AM	5:00 AM	22	25	47
5:00 AM	6:00 AM	51	94	145
6:00 AM	7:00 AM	150	191	341
7:00 AM	8:00 AM	301	344	645
8:00 AM	9:00 AM	340	270	610
9:00 AM	10:00 AM	230	226	456
10:00 AM	11:00 AM	220	199	419
11:00 AM	12:00 PM	248	201	449
12:00 PM	1:00 PM	240	190	430
1:00 PM	2:00 PM	279	226	505
2:00 PM	3:00 PM	397	253	650
3:00 PM	4:00 PM	430	250	680
4:00 PM	5:00 PM	368	295	663
5:00 PM	6:00 PM	429	294	723
6:00 PM	7:00 PM	336	300	636
7:00 PM	8:00 PM	260	212	472
8:00 PM	9:00 PM	236	151	387
9:00 PM	10:00 PM	144	110	254
10:00 PM	11:00 PM	109	90	199
11:00 PM	12:00 AM	55	48	103
AVERAGE WEEKDAY DAILY TRAFFIC		**4900**	**4031**	**8931**
	AADT	**4500**	**3702**	**8202**

NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

NYSDOT CLASSIFICATION DATA SUMMARY

ROADWAY: VERPLANCK AVENUE
SEGMENT: FROM FISHKILL AVENUE TO NYS ROUTE 9D ARTERIAL
LOCATION: 120' E OF N WALNUT ST
START DATE OF COUNT: Tuesday, May 14, 2019
NYSDOT COUNT STATION: 822024
FUNCTIONAL CLASS: 17 - URBAN MAJOR COLLECTOR
FACTOR GROUP: 30

VEHICLE CLASS	DIRECTIONAL VOLUMES		TOTAL VEHICLES	TOTAL AXLES
	EASTBOUND	WESTBOUND		
F1	90	91	181	362
F2	3991	3308	7299	14598
F3	554	441	995	1990
F4	46	27	73	183
F5	89	75	164	328
F6	5	3	8	24
F7	34	21	55	220
F8	74	66	140	490
F9	8	3	11	55
F10	1	0	1	6
F11	0	0	0	0
F12	0	0	0	0
F13	4	2	6	53
AVERAGE WEEKDAY TOTAL	**4896**	**4037**	**8933**	**18308**

	EASTBOUND	WESTBOUND	TOTAL
% TRUCKS & BUSES (F3 - F13)	17%	16%	16%
% HEAVY VEHICLES (F4 - F13)	5%	5%	5%
% F3 - F7	4%	3%	3%
% F8 - F13	2%	2%	2%
% F1	2%	2%	2%
% F2	82%	82%	82%
% F3	11%	11%	11%
% F4	1%	1%	1%
% F5 - F7	3%	2%	3%

VEHICLE CLASSIFICATION CODES:

- **F1** MOTORCYCLES
- **F2** AUTOS (INCLUDING THOSE HAULING TRAILERS)
- **F3** 2 AXLE, 4-TIRE PICKUPS, VANS, MOTORHOMES (INCLUDING THOSE HAULING TRAILERS)
- **F4** BUSES
- **F5** 2 AXLE, 6-TIRE SINGLE UNIT TRUCKS
- **F6** 3 AXLE SINGLE UNIT TRUCKS
- **F7** 4 OR MORE AXLE SINGLE UNIT TRUCKS
- **F8** 4 OR LESS AXLE VEHICLES, ONE UNIT IS A TRUCK
- **F9** 5 AXLE DOUBLE UNIT VEHICLES, ONE UNIT IS A TRUCK
- **F10** 6 OR MORE AXLE DOUBLE UNIT VEHICLES, ONE UNIT IS A TRUCK
- **F11** 5 OR LESS AXLE MULTI-UNIT TRUCKS
- **F12** 6 AXLE MULTI UNIT TRUCKS
- **F13** 7 OR MORE AXLE MULTI-UNIT TRUCKS

NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

NYSDOT SPEED DATA SUMMARY

ROADWAY: VERPLANCK AVENUE
SEGMENT: FROM FISHKILL AVENUE TO NYS ROUTE 9D ARTERIAL
LOCATION: 120' E OF N WALNUT ST
START DATE OF COUNT: Tuesday, May 14, 2019
NYSDOT COUNT STATION: 822024
FUNCTIONAL CLASS: 17 - URBAN MAJOR COLLECTOR
POSTED SPEED LIMIT: 30
FACTOR GROUP: 30

SPEEDS (MPH)	DIRECTIONAL VOLUMES		TOTAL VOLUME
	EASTBOUND	WESTBOUND	
0 - 20.0	413	193	606
20.1 - 25.0	1299	854	2153
25.1 - 30.0	2177	1981	4158
30.1 - 35.0	872	865	1737
35.1 - 40.0	113	121	234
40.1 - 45.0	10	13	23
45.1 - 50.0	1	4	5
50.1 - 55.0	1	0	1
55.1 - 60.0	1	0	1
60.1 - 65.0	0	0	0
65.1 - 70.0	0	0	0
70.1 - 75.0	1	0	1
75.1 - 80.0	0	0	0
80.1+	0	0	0
UNCLASSIFIED	3	3	6
AVERAGE SPEED (MPH)	**25**	**26**	**25**
50TH PERCENTILE SPEED (MPH)	**27**	**28**	**27**
85TH PERCENTILE SPEED (MPH)	**32**	**32**	**32**

NOTES:

1) DATA SOURCE: NEW YORK STATE DEPARTMENT OF TRANSPORTATION (NYSDOT) TRAFFIC DATA VIEWER AVERAGE WEEKDAY VOLUMES

Colliers Engineering & Design

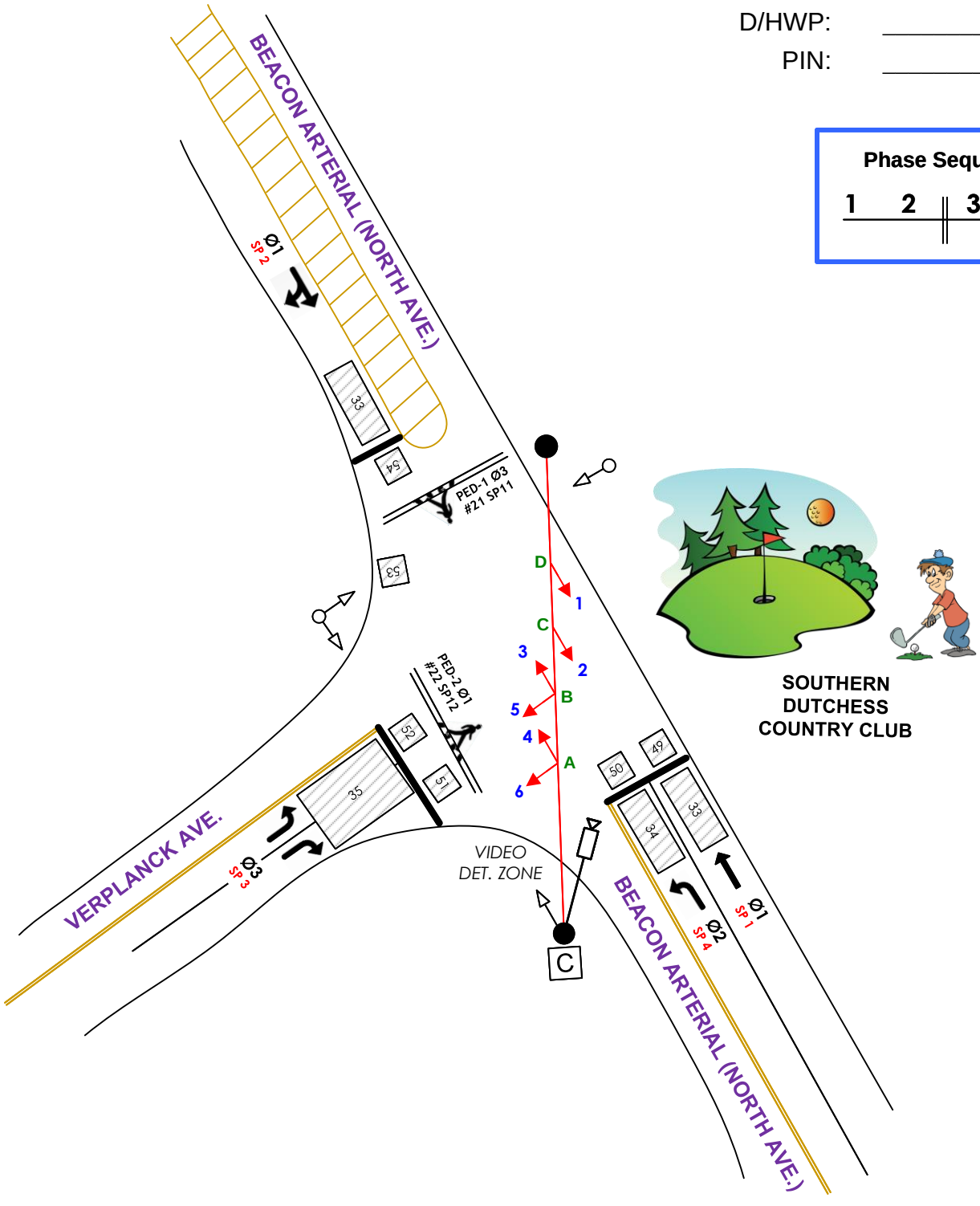
Appendix E | NYSDOT Traffic Signal Timing Plans

D-24A
Signal #

STATE OF NEW YORK - DEPARTMENT OF TRANSPORTATION
TRAFFIC AND SAFETY DIVISION
in the City of BEACON

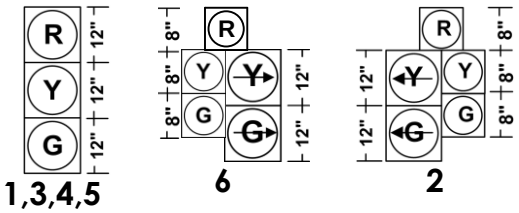
Signal: **D-24A**
File: 13.01-BEACON ART.
D/HWP: _____
PIN: _____

Phase Sequence
1 2 3



SOUTHERN DUTCHESS COUNTRY CLUB

TABLE OF FACES



NORTH

2022 PLAN OF OPERATION

Printed: 10/13/2022

1158

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	3	15	3			15		3
Gap, Ext	2	3	2			3		2
Max 1	30	45	30			45		30
Max 2								
Yel Clearance	4	4	4	3.5	3.5	4	3.5	4
Red Clearance	2	2	2	1.5	1.5	2	1.5	2
Walk		7	7					7
Ped Clearance		21	13					13
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	ON	ON	ON			ON		ON
Min Recall		ON				ON		
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry		ON	ON			ON		ON
Enable Simul Gap	ON	ON	ON	ON	ON	ON	ON	ON
Gaurantee Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay			10					

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	0	0	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	0	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	115	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split		1	2	3	4	5	6	7	8	Split		1	2	3	4	5	6	7	8
1	Coor	0	0	0	0	0	0	0	0	13	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
2	Coor	0	0	0	0	0	0	0	0	14	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
3	Coor	0	0	0	0	0	0	0	0	15	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
4	Coor	0	0	0	0	0	0	0	0	16	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
5	Coor	0	0	0	0	0	0	0	0	17	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
6	Coor	0	0	0	0	0	0	0	0	18	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
7	Coor	0	0	0	0	0	0	0	0	19	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
8	Coor	0	0	0	0	0	0	0	0	20	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
9	Coor	0	0	0	0	0	0	0	0	21	Coor	25	50	40	0	0	75	0	40
		NON	NON	NON	NON	NON	NON	NON	NON		2	NON	Max	NON	NON	NON	NON	NON	NON
10	Coor	0	0	0	0	0	0	0	0	22	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
11	Coor	0	0	0	0	0	0	0	0	23	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
12	Coor	0	0	0	0	0	0	0	0	24	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

2924

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	Red	ON
2	1	Green	ON
3	1	Red	ON
4	1	Red	OFF
5	2	Red	OFF
6	2	Green	ON
7	2	Red	OFF
8	2	Red	ON

Coord Modes [2.1]

Test OpMode	254
Correction	SHRT/LNG
Maximum	MAX INH
Force-Off	FIXED
Closed Loop	ON
Stop-in-Walk	ON
Auto Reset	ON
Expand Splt	
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	PH_OVLP
Flash Yel	45
Flash Red	20

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	User
Loc Flsh Start	ON
Start Flash(s)	0
Start AllRed(s)	0
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

Overlap 1-16 Program Parms & Parm+ [1.5.2.1] [1.5.2.2]

Overlap Conflict Lock: OFF | Overlap Lock Inhibit: OFF | Parent Ph Clearance: ON | Extra Included Ph: OFF

	Included Ø	1	3							Type	NORMAL		Included Ø									Type	NORMAL
1	Modifier Ø	3								Grn		9	Modifier Ø									Grn	
	Conflict Ø	3								Yel	4		Conflict Ø									Yel	3.5
A	Conflict Olap									Red	2	I	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
	Included Ø									Type	NORMAL		Included Ø									Type	NORMAL
2	Modifier Ø									Grn		10	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
B	Conflict Olap									Red	1.5	J	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
	Included Ø									Type	NORMAL		Included Ø									Type	NORMAL
3	Modifier Ø									Grn		11	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
C	Conflict Olap									Red	1.5	K	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
	Included Ø									Type	NORMAL		Included Ø									Type	NORMAL
4	Modifier Ø									Grn		12	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
D	Conflict Olap									Red	1.5	L	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
	Included Ø									Type	NORMAL		Included Ø									Type	NORMAL
5	Modifier Ø									Grn		13	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
E	Conflict Olap									Red	1.5	M	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
	Included Ø									Type	NORMAL		Included Ø									Type	NORMAL
6	Modifier Ø									Grn		14	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
F	Conflict Olap									Red	1.5	N	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
	Included Ø									Type	NORMAL		Included Ø									Type	NORMAL
7	Modifier Ø									Grn		15	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
G	Conflict Olap									Red	1.5	O	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	
	Included Ø									Type	NORMAL		Included Ø									Type	NORMAL
8	Modifier Ø									Grn		16	Modifier Ø									Grn	
	Conflict Ø									Yel	3.5		Conflict Ø									Yel	3.5
H	Conflict Olap									Red	1.5	P	Conflict Olap									Red	1.5
	Conflict Ped									LG			Conflict Ped									LG	

Channel Settings [1.8.1]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Phase / Olap #	1	2	3			6			1	2	3													
Channel Type	VEH	VEH	VEH	VEH	VEH	VEH	VEH	PED	OLP	PED	PED	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Channel Flash	DRK	YEL	Red	Red	Red	YEL	DRK	DRK	DRK	Red	Red	Red	Red	Red	Red	Red	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								

Channel+ Settings [1.8.4]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Flash Red+																								
Flash Yellow+																								
Flash Green+																								
Flash Inh Red+																								
Olap Ovrd																								

Coord Transition, CoorPhs [2.5]

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	RetHld	Float	Min Veh Perm	Min Ped Perm
1	12	22							EndGRN				
2	12	22							EndGRN				
3	12	22							EndGRN				
4	12	22							EndGRN				
5	12	22							EndGRN				
6	12	22							EndGRN				
7	12	22							EndGRN				
8	12	22							EndGRN				
9	12	22							EndGRN				
10	12	22							EndGRN				
11	12	22							EndGRN				
12	12	22							EndGRN				
13	12	22							EndGRN				
14	12	22							EndGRN				
15	12	22							EndGRN				
16	12	22							EndGRN				
17	12	22							EndGRN				
18	12	22							EndGRN				
19	12	22							EndGRN				
20	12	22							EndGRN				
21	12	22		3	8				EndGRN				
22	12	22							EndGRN				
23	12	22							EndGRN				
24	12	22							EndGRN				
25									BegGRN				
26									BegGRN				
27									BegGRN				
28									BegGRN				
29									BegGRN				
30									BegGRN				
31									BegGRN				
32									BegGRN				
33									BegGRN				
34									BegGRN				
35									BegGRN				
36									BegGRN				
37									BegGRN				
38									BegGRN				
39									BegGRN				
40									BegGRN				
41									BegGRN				
42									BegGRN				
43									BegGRN				
44									BegGRN				
45									BegGRN				
46									BegGRN				
47									BegGRN				
48									BegGRN				

Channel Params[1.8.3]

C1 IO Mode	User	Single BIU Map	DEFAULT	Invert Rail Input	OFF

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1	1	6	1				45	50	15
2							45	50	2
3	3		3				45	50	15
4	3		3				45	50	15
5							45	50	2
6							45	50	2
7							45	50	2
8							45	50	2
9							45	50	2
10							45	50	2
11	1	6	2				45	50	15
12							45	50	2
13							45	50	2
14							45	50	2
15							45	50	2
16							45	50	2
17							45	50	2
18							45	50	2
19							45	50	
20							45	50	
21							45	50	
22							45	50	
23							45	50	
24							45	50	
25							45	50	
26							45	50	
27							45	50	
28							45	50	
29	1		15				45	50	
30							45	50	
31							45	50	
32							45	50	

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
33							45	50	
34							45	50	
35	6						45	50	
36							45	50	
37							45	50	
38							45	50	
39	2						45	50	
40							45	50	
41							45	50	
42							45	50	
43							45	50	
44							45	50	
45							45	50	
46							45	50	
47							45	50	
48							45	50	
49							45	50	
50							45	50	
51							45	50	
52							45	50	
53							45	50	
54							45	50	
55							45	50	
56							45	50	
57							45	50	
58							45	50	
59							45	50	
60							45	50	
61							45	50	
62							45	50	
63							45	50	
64							45	50	

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	ON	ON		ON				
2	ON	ON		ON				
3	ON	ON		ON				
4	ON	ON		ON				
5	ON	ON		ON				
6	ON	ON		ON				
7	ON	ON		ON				
8	ON	ON		ON				
9	ON	ON		ON				
10	ON	ON		ON				
11	ON	ON		ON				
12	ON	ON		ON				
13	ON	ON		ON				
14	ON	ON		ON				
15	ON	ON		ON				
16	ON	ON		ON				
17	ON	ON		ON				
18	ON	ON		ON				
19	ON	ON		ON				
20	ON	ON		ON				
21	ON	ON		ON				
22	ON	ON		ON				
23	ON	ON		ON				
24	ON	ON		ON				
25	ON	ON		ON				
26	ON	ON		ON				
27	ON	ON		ON				
28	ON	ON		ON				
29	ON	ON		ON				
30	ON	ON		ON				
31	ON	ON		ON				
32	ON	ON		ON				

Vehicle Options 1-64 [5.2]

Det #	vol	occ	Yell Lock	Red Lock	Ext	Add Init	Que	Call
33					ON	ON		ON
34					ON	ON		ON
35					ON	ON		ON
36					ON	ON		ON
37					ON	ON		ON
38					ON	ON		ON
39					ON	ON		ON
40					ON	ON		ON
41					ON	ON		ON
42					ON	ON		ON
43					ON	ON		ON
44					ON	ON		ON
45					ON	ON		ON
46					ON	ON		ON
47					ON	ON		ON
48					ON	ON		ON
49					ON	ON		ON
50					ON	ON		ON
51					ON	ON		ON
52					ON	ON		ON
53					ON	ON		ON
54					ON	ON		ON
55					ON	ON		ON
56					ON	ON		ON
57					ON	ON		ON
58					ON	ON		ON
59					ON	ON		ON
60					ON	ON		ON
61					ON	ON		ON
62					ON	ON		ON
63					ON	ON		ON
64					ON	ON		ON

Parameters+ 1-64 [5.3]

Det #	oc G	oc Y	oc R	Dlay 1	Dlay 2	Type	Src
1						NORM	
2						NORM	
3						NORM	
4						NORM	
5						NORM	
6						NORM	
7						NORM	
8						NORM	
9						NORM	
10						NORM	
11						NORM	
12						NORM	
13						NORM	
14						NORM	
15						NORM	
16						NORM	
17						NORM	
18						NORM	
19						NORM	
20						NORM	
21						NORM	
22						NORM	
23						NORM	
24						NORM	
25						NORM	
26						NORM	
27						NORM	
28						NORM	
29						NORM	1
30						NORM	
31						NORM	
32						NORM	

Parameters+ 1-64 [5.3]

Det #	occ Grn	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src
33						NORM	
34						NORM	
35						NORM	
36						NORM	
37						NORM	
38						NORM	
39						NORM	
40						NORM	
41						NORM	
42						NORM	
43						NORM	
44						NORM	
45						NORM	
46						NORM	
47						NORM	
48						NORM	
49						NORM	
50						NORM	
51						NORM	
52						NORM	
53						NORM	
54						NORM	
55						NORM	
56						NORM	
57						NORM	
58						NORM	
59						NORM	
60						NORM	
61						NORM	
62						NORM	
63						NORM	
64						NORM	

Ped Det Parms [5.4]

Det #	Call Ø	No Act	Max Pres	Err Cnt
1	3		15	
2	2		15	
3			15	
4			15	
5			15	
6			15	
7			15	
8			15	

Unit Paramters [1.2.1]

TS2 Det Faults	ON

Vol/Occ Report Parm [1.5.8]

Vol/Occ Period Minutes	0
Vol/Occ Period Minutes	15

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Preemption Times [3.1], Options+ [3.6]

Pre #	Enable	Type	Output	Delay	MinDura
1	ON	RAIL	Dwell		
2	ON	RAIL	Dwell		
3	ON	EMERG	Dwell		
4	ON	EMERG	Dwell		
5	ON	EMERG	Dwell		
6	ON	EMERG	Dwell		

Pre #	MaxPres	MinGrn	MinWlk	PedClr	Co+Pre
1					ON
2					ON
3					ON
4					ON
5					ON
6					ON

Pre #	Track Grn	Min Dwell	Ext Dwell	PedClr+	Yel
1		2			
2		2			
3		2			
4		2			
5		2			
6		2			

Pre #	Red	Pattern	Skip
1			OFF
2			OFF
3			OFF
4			OFF
5			OFF
6			OFF

Low Priority Preempts

Pre #	Type	Min	Max
7	OFF		
8	OFF		
9	OFF		
10	OFF		

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	PRE
Max Seek Track Time	
Max Seek Dwell Time	

Channel Parameters [1.8.3]

D Conn Mappings	OFF
Pre Invert Rail Input	None

Track Clear Phases [3.2], Track Clear Overlaps+ [3.5]

Pre #	Track Phases	Track Overlaps
1		
2		
3		
4		
5		
6		

Dwell Phases [3.2] and Overlaps+ [3.5]

Pre #		
1	Phases	
	Overlaps	
	Peds	
2	Phases	
	Overlaps	
	Peds	
3	Phases	
	Overlaps	
	Peds	
4	Phases	
	Overlaps	
	Peds	
5	Phases	
	Overlaps	
	Peds	
6	Phases	
	Overlaps	
	Peds	

Exit Phases [3.2]

Pre #	Exit Phase
1	
2	
3	
4	
5	
6	

Preemption 1, Options+ [3.6]

Pre #	Lock	Override Auto Flsh	Override Higher	Flsh Dwell	Link
1	ON	ON	ON	OFF	
2	ON	ON	ON	OFF	
3	ON	ON	ON	OFF	
4	ON	ON	ON	OFF	
5	ON	ON	ON	OFF	
6	ON	ON	ON	OFF	

Alt# 1 Times Table [1.1.6.1]

Column#.. ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1]

Column#.. ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1]

Column#.. ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
Red Clr	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Annual Schedule [4.3]	Month of Year												Day of Week							Date																											Day	Link
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan	To
1																																																	1	
2																																																		1	
3																																																	1	
4																																																	1	
5																																																	1	
6																																																	1	
7																																																	1	
8																																																	1	
9																																																	1	
10																																																	1	
11																																																	1	
12																																																	1	
13																																																	1	
14																																																	1	
15																																																	1	
16																																																	1	
17																																																	1	
18																																																	1	
19																																																	1	
20																																																	1	
21																																																	1	
22																																																	1	
23																																																	1	
24																																																	1	

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Day Plans [4.4]

Day Plan 1

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 2

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 3

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 4

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 5

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 6

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 7

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 8

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 9

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 10

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 11

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 12

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 13

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 14

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 15

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Action Table [4.5]

Act#	Pat#	A1	A2	A3	S1	S2	S3	S4	S5	S6	S7	S8
1	1											
2	2											
3	3											
4	4											
5	5											
6	6											
7	7											
8	8											
9	9											
10	10											
11	11											
12	12											
13	13											
14	14											
15	15											
16	16											
17	17											
18	18											
19	19											
20	20											
21	21											
22	22											
23	23											
24	24											
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
48												
98												
99												
100	255											

Coord Alternate Tables - Pat+ [2.6]

Pat#	ØOpt	ØTime	DetG	Call Inh	CIC	CNA1	Overlap Off 1	2	3	4	5	6	7	8	Dia	Max2
1															DFT	
2															DFT	
3															DFT	
4															DFT	
5															DFT	
6															DFT	
7															DFT	
8															DFT	
9															DFT	
10															DFT	
11															DFT	
12															DFT	
13															DFT	
14															DFT	
15															DFT	
16															DFT	
17															DFT	
18															DFT	
19															DFT	
20															DFT	
21															DFT	
22															DFT	
23															DFT	
24															DFT	
25															DFT	
26															DFT	
27															DFT	
28															DFT	
29															DFT	
30															DFT	
31															DFT	
32															DFT	
33															DFT	
34															DFT	
35															DFT	
36															DFT	
37															DFT	
38															DFT	
39															DFT	
40															DFT	
41															DFT	
42															DFT	
43															DFT	
44															DFT	
45															DFT	
46															DFT	
47															DFT	
48															DFT	

#	Event / Alarm	Ev	Alr
1	Power Up Alarm.	ON	ON
2	Stop Timing	ON	ON
3	TS1 Cabinet Door		
4	Coordination Failure	ON	ON
5	External Alarm # 1	ON	ON
6	External Alarm # 2	ON	ON
7	External Alarm # 3		
8	External Alarm # 4		
9	Closed Loop Disabled	ON	
10	External Alarm # 5		
11	External Alarm # 6		
12	Manual Control Enable	ON	ON
13	Coord Free Input		
14	Local Flash Input	ON	ON
15	MMU Flash		
16	CMU Flash		
17	Cycle Fault	ON	
18	Cycle Failure	ON	
19	Coordination Fault	ON	
20	Controller Fault	ON	ON
21	Detector SDLC Failure		
22	MMU SDLC Failure		
23	Critical SDLC Failure		
24	Reserved		
25	EEPROM CRC Fault	ON	ON
26	Detector Diagnostic Failure		
27	BIU Detector Failure	ON	ON
28	Queue detector alarm	ON	
29	Ped Detector Fault	ON	
30	Coord Diagnostic Fault		
41	TempAlert Probe Ch. A		
42	TempAlert Probe Ch. B		
47	Coord Active		
48	Preempt Active	ON	
49	Preempt 1 Input	ON	
50	Preempt 2 Input	ON	
51	Preempt 3 Input	ON	
52	Preempt 4 Input	ON	
53	Preempt 5 Input	ON	
54	Preempt 6 Input	ON	
55	Preempt 7 Input	ON	
56	Preempt 8 Input	ON	
57	Preempt 9 Input	ON	
58	Preempt 10 Input	ON	
61	In Transition	ON	
81	FIO Status Alarm		

Call Phases[1.1.5]

Ø	Phases Called By Ø			
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

Redirect Phases[1.1.5]

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

Inhibit Phases[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

Alt Call & Redirect # 1 [1.1.6.3]

Col	Ø	Phases Called By Ø			
1					
2					
3					
4					
5					
6					
7					
8					

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 1 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Alt Call & Redirect # 2 [1.1.6.3]

Col	Ø	Phases Called By Ø			
1					
2					
3					
4					
5					
6					
7					
8					

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 2 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Auto Flash Phase/Olap Settings [1.4.2]

Yel Ø								
Yel (olaps)								

Unit Parameters [1.2.1]

Allow Skip Yellow	OFF	Max Cycle Time	
TOD Dim Enable	OFF	Cycle Fault Action	Alarm
Tone Disable	OFF		
Diamond Mode	4Ph		
Backup Time (s)	900		
Disable Init Ped	OFF		
Cycle Fault Action	Alarm		
Enable Run Timer	ON		

C1-USER IO Map [1.8.9.1 In]

I1-1	1	Veh Call 1
I1-2	189	Unused
I1-3	3	Veh Call 3
I1-4	4	Veh Call 4
I1-5	189	Unused
I1-6	189	Unused
I1-7	189	Unused
I1-8	189	Unused
I2-1	129	Ped Call 1
I2-2	130	Ped Call 2
I2-3	11	Veh Call 11
I2-4	189	Unused
I2-5	189	Unused
I2-6	189	Unused
I2-7	189	Unused
I2-8	189	Unused
I3-1	189	Unused
I3-2	189	Unused
I3-3	189	Unused
I3-4	189	Unused
I3-5	189	Unused
I3-6	189	Unused
I3-7	189	Unused
I3-8	189	Unused
I4-1	189	
I4-2		
I4-3		
I4-4		
I4-5	189	Unused
I4-6	189	Unused
I4-7	229	33xCMUStop
I4-8	228	33xFlashSns
I5-1	189	Unused
I5-2	189	Unused
I5-3	189	Unused
I5-4	189	Unused
I5-5	189	Unused
I5-6	189	Unused
I5-7	189	Unused
I5-8	189	Unused
I6-1	189	Unused
I6-2	189	Unused
I6-3	189	Unused
I6-4	189	Unused
I6-5	189	Unused
I6-6	189	Unused
I6-7	189	Unused
I6-8	189	Unused

C1-USER IO Map [1.8.9.2 Out]

O1-1	1	Ch1 Red
O1-2	49	Ch1 Green
O1-3	2	Ch2 Red
O1-4	26	Ch2 Yellow
O1-5	50	Ch2 Green
O1-6	3	Ch3 Red
O1-7	27	Ch3 Yellow
O1-8	51	Ch3 Green
O2-1	4	Ch4 Red
O2-2	52	Ch4 Green
O2-3	5	Ch5 Red
O2-4	29	Ch5 Yellow
O2-5	53	Ch5 Green
O2-6	6	Ch6 Red
O2-7	30	Ch6 Yellow
O2-8	54	Ch6 Green
O3-1	7	Ch7 Red
O3-2	55	Ch7 Green
O3-3	8	Ch8 Red
O3-4	32	Ch8 Yellow
O3-5	56	Ch8 Green
O3-6	9	Ch9 Red
O3-7	33	Ch9 Yellow
O3-8	57	Ch9 Green
O4-1	10	Ch10 Red
O4-2	58	Ch10 Green
O4-3	11	Ch11 Red
O4-4	35	Ch11 Yellow
O4-5	59	Ch11 Green
O4-6	12	Ch12 Red
O4-7	36	Ch12 Yellow
O4-8	60	Ch12 Green
O5-1	28	Ch4 Yellow
O5-2	34	Ch10 Yellow
O5-3	25	Ch1 Yellow
O5-4	31	Ch7 Yellow
O5-5	39	Ch15 Yellow
O5-6	63	Ch15 Green
O5-7	115	Not Used
O5-8	114	Watchdog
O6-1	115	Not Used
O6-2	115	Not Used
O6-3	13	Ch13 Red
O6-4	37	Ch13 Yellow
O6-5	61	Ch13 Green
O6-6	14	Ch14 Red
O6-7	38	Ch14 Yellow
O6-8	62	Ch14 Green

C1-USER IO Map [1.8.9.2 Out]

O7-1	40	Ch16 Yellow
O7-2	16	Ch16 Red
O7-3	64	Ch16 Green
O7-4	115	Not Used
O7-5	115	Not Used
O7-6	115	Not Used
O7-7	115	Not Used
O7-8	15	Ch15 Red

C11S-USER IO Map [1.8.9.1 In]

I4-1		
I4-2		
I4-3		
I4-4		
I7-1	189	Unused
I7-2	189	Unused
I7-3	189	Unused
I7-4	189	Unused
I7-5	189	Unused
I7-6	189	Unused
I7-7	189	Unused
I7-8	189	Unused
I8-1	189	Unused
I8-2	189	Unused
I8-3	189	Unused
I8-4	189	Unused
I8-5	189	Unused
I8-6	189	Unused
I8-7	189	Unused
I8-8	189	Unused

C11S-USER IO Map [1.8.9.2 Out]

O8-1	115	Not Used
O8-2	115	Not Used
O8-3	115	Not Used
O8-4	115	Not Used
O8-5	115	Not Used
O8-6	115	Not Used
O8-7	115	Not Used
O8-8	115	Not Used

IO Logic [1.8.7]

Op1	Result		O1Fcn	Inv1	Src1	IO1	Fun1	O2Fcn	Inv2	Src2	IO2	Fun2	O3Fcn	Inv3	Src3	IO3	Fun3	Dly	Sec
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0

Security Access Levels [8.2]

1	SWLOAD
2	SECURE
3	None
4	None
5	None
6	None
7	None
8	None
9	None
10	None
11	None
12	None
13	None
14	None
15	None
16	None
17	None
18	None
19	None
20	None
21	None

22	None
23	None
24	None
25	None
26	None
27	None
28	None
29	None
30	None
31	None
32	None
33	None
34	None
35	None
36	None
37	None
38	None
39	None
40	None
41	None
42	None

43	None
44	None
45	None
46	None
47	None
48	None
49	None
50	None
51	None
52	None
53	None
54	None
55	None
56	None
57	None
58	None
59	None
60	None
61	None
62	None
63	None
64	None

Com Parameters [6.1]

Station ID	2924
Group ID	0
Master ID	0
Backup Time	900

SysUp Modem [6.1]

Enable Modem	None
Idle Time	0
Dial Time	0
Tel:	
Alt:	

2070 Port Parms [6.2]

Port	Baud Rate	FCM
SP1	9600	6
SP2	9600	6
SP3	19200	6
SP4	38400	6
SP5	1200	0
SP6	1200	0
SP7	1200	0
SP8	1200	0

2070 IP 1 Addressing [6.5]

	Addressing			
Addr	192	168	0	100
Mask	255	255	255	0
Brdcst	0	0	0	0
GtWay	192	168	0	1
Port	###			

2070 IP 2 Addressing [6.5]

	Addressing			
Addr	192	168	0	100
Mask	255	255	255	0
Brdcst	0	0	0	0
GtWay	192	168	0	1
Port	5001			

2070 Port Binding Ports [6.6]

	Port	Echo	Mode
ASYNC1	SP1	None	0
ASYNC2	SP2	None	0
ASYNC3	SP8	None	0
ASYNC4	SP4	None	0
SYNC1	SP5S	SYNC3	OFF
SYNC2	SP3S	SYNC4	OFF

2070 Port Binding Functions [6.6]

Function	Channel	Function	Channel
TS2/CVN	ASYNC3	SYSUp	ASYNC2
CMU/MN	None	SYSDow	ASYNC1
Opticom	None	Shell	None
Loop De	None		
GPS	None		

D-24A
Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

Signal: **D-24A**
File: 13.01-BEACON ART.
D/HWP:
PIN:

TABLE OF SWITCH PACKS

Date: 4/25/2022

SWITCH PACK	FUNCTION	INDICATIONS	FACE	TERMINAL	WIRE COLOR CODE	FACE	TERMINAL	WIRE COLOR CODE
1	Ø1	Red	1	SP 1 R	14/5C-D-R	2	SP 1 R	14/10C-C-R
		Yellow		SP 1 Y	14/5C-D-O		SP 1 Y	14/10C-C-O
		Green		SP 1 G	14/5C-D-G		SP 1 G	14/10C-C-G
		Ground Wire		Grnd Bus	14/5C-D-W		Grnd Bus	14/10C-C-W
2	Ø1	Red	3	SP 2 R	14/10C-B-R	4	SP 2 R	14/15C-A-R
		Yellow		SP 2 Y	14/10C-B-O		SP 2 Y	14/15C-A-O
		Green		SP 2 G	14/10C-B-G		SP 2 G	14/15C-A-G
		Ground Wire		Grnd Bus	14/10C-B-W		Grnd Bus	14/15C-A-W
3	Ø3	Red	5	SP 3 R	14/10C-B-R/B	6	SP 3 R	14/15C-A-R/B
		Yellow		SP 3 Y	14/10C-B-O/B		SP 3 Y	14/15C-A-O/B
		Green		SP 3 G	14/10C-B-G/B		SP 3 G	14/15C-A-G/B
		Ground Wire		Grnd Bus	14/10C-B-W/B		Grnd Bus	14/15C-A-W/B
4.	Ø2	- - - - -	2	SP 4 R	- - - - - -		SP 4 R	
		⇐		SP 4 Y	14/10C-C-O/B		SP 4 Y	
		←		SP 4 G	14/10C-C-G/B		SP 4 G	
		Ground Wire		Grnd Bus	14/10C-C-W/B		Grnd Bus	
5.	Ø3	- - - - -	6	SP 5 R	- - - - - -		SP 5 R	
		⇒		SP 5 Y	14/15C-A-BL/W		SP 5 Y	
		→		SP 5 G	14/15C-A-G/W		SP 5 G	
		Ground Wire		Grnd Bus	14/15C-A-B/W		Grnd Bus	
6.				SP 6 R			SP 6 R	
				SP 6 Y			SP 6 Y	
				SP 6 G			SP 6 G	
		Ground Wire		Grnd Bus			Grnd Bus	
7.				SP 7 R			SP 7 R	
				SP 7 Y			SP 7 Y	
				SP 7 G			SP 7 G	
		Ground Wire		Grnd Bus			Grnd Bus	
8				SP 8 R			SP 8 R	
				SP 8 Y			SP 8 Y	
				SP 8 G			SP 8 G	
		Ground Wire		Grnd Bus			Grnd Bus	
9				SP 9 R			SP 9 R	
				SP 9 Y			SP 9 Y	
				SP 9 G			SP 9 G	
		Ground Wire		Grnd Bus			Grnd Bus	
10				SP 10 R			SP 10 R	
				SP 10 Y			SP 10 Y	
				SP 10 G			SP 10 G	
		Ground Wire		Grnd Bus			Grnd Bus	
11.	PED-1 Ø3		21	SP 11 R	14/5C-1P-R		SP 11 R	
				SP 11 Y	- - - - - -		SP 11 Y	
				SP 11 G	14/5C-1P-G		SP 11 G	
		Ground Wire		Grnd Bus	14/5C-1P-W		Grnd Bus	
12.	PED-2 Ø1		22	SP 12 R	14/5C-2P-R		SP 12 R	
				SP 12 Y	- - - - - -		SP 12 Y	
				SP 12 G	14/5C-2P-G		SP 12 G	
		Ground Wire		Grnd Bus	14/5C-2P-W		Grnd Bus	
13				SP 13 R			SP 13 R	
				SP 13 Y			SP 13 Y	
				SP 13 G			SP 13 G	
		Ground Wire		Grnd Bus			Grnd Bus	
14.				SP 14 R			SP 14 R	
				SP 14 Y			SP 14 Y	
				SP 14 G			SP 14 G	
		Ground Wire		Grnd Bus			Grnd Bus	
15				SP 15 R			SP 15 R	
				SP 15 Y			SP 15 Y	
				SP 15 G			SP 15 G	
		Ground Wire		Grnd Bus			Grnd Bus	
16				SP 16 R			SP 16 R	
				SP 16 Y			SP 16 Y	
				SP 16 G			SP 16 G	
		Ground Wire		Grnd Bus			Grnd Bus	

D-24A
Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

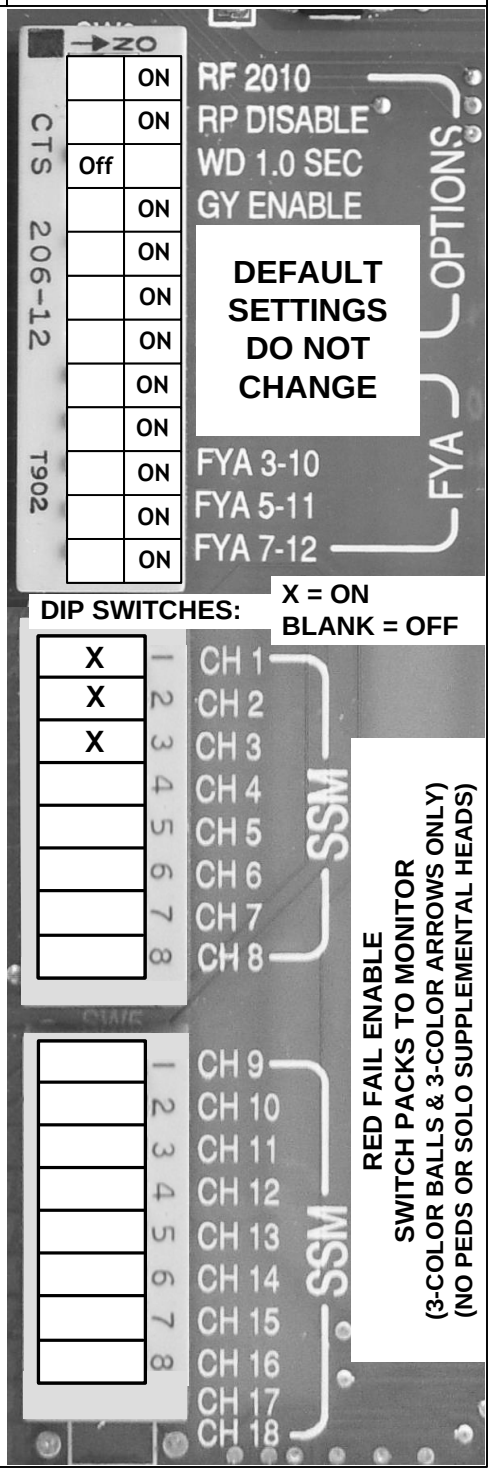
Signal: **D-24A**
File: 13.01-BEACON ART.
D/HWP:
PIN:
Date: 4/25/2022

TRAFFIC SIGNAL MONITOR PROGRAMMING

CONFLICT MONITOR DIODES TO BE CUT (SWITCH PACKS TO RUN TOGETHER)		
1-2	3-5	
1-4	3-11	
2-4	5-11	
1-12		
2-12		

YELLOW DISABLE: WIRE JUMPERS TO BE INSTALLED FOR PEDS	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	X
12	X
13	
14	
15	
16	

210NYR MONITOR BOARD
(SWITCH PACKS TO MONITOR)



CURRENT MONITOR BOARD (IF USED)

CURRENT MONITOR DIODES TO BE CUT (SWITCH PACKS TO *NOT* MONITOR)
4-18

Notes:

D-24A
Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

Signal: **D-24A**
File: 13.01-BEACON ART.
D/HWP:
PIN:

Date: 4/25/2022

TABLE OF INPUT WIRING

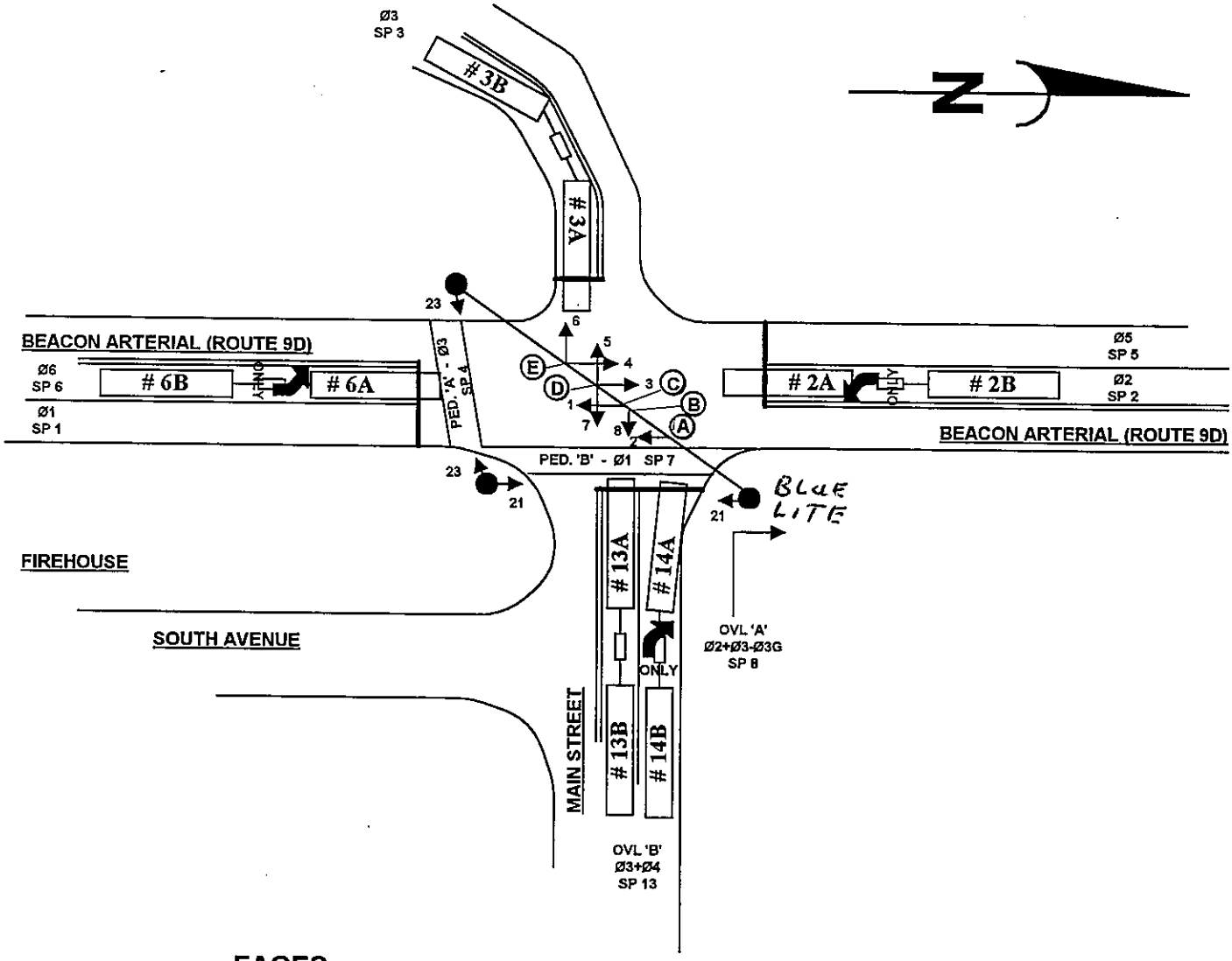
SDLC CHANNEL	FUNCTION	DET. ZONE NO.	DET. TYPE	DET. AN OVER	REMARKS
33	**Ø1**	33	GRIDSMART		PRESENCE
34	**Ø2**	34	GRIDSMART		PRESENCE
35	**Ø3**	35	GRIDSMART		PRESENCE
49	**Ø1 (NORTHBOUND-STRAIGHT)**	49	GRIDSMART		COUNT
50	**Ø2 (NORTHBOUND-LT)**	50	GRIDSMART		COUNT
51	**Ø3 (RT)**	51	GRIDSMART		COUNT
52	**Ø3 (LT)**	52	GRIDSMART		COUNT
53	**Ø1 (SOUTHBOUND-RT)**	53	GRIDSMART		COUNT
54	**Ø1 (SOUTHBOUND-STRAIGHT)**	54	GRIDSMART		COUNT
21	**PED-1 Ø3**	21	BUTTON		PEDESTRIAN
22	**PED-2 Ø1**	22	BUTTON		PEDESTRIAN

STATE OF NEW YORK - DEPARTMENT OF TRANSPORTATION
TRAFFIC AND SAFETY DIVISION
TRAFFIC CONTROL SIGNAL SPECIFICATIONS (CONTINUED)

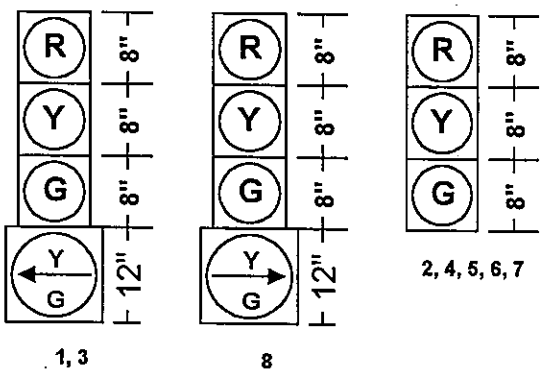
STUDY:
CONTRACT:
PIN:
FILE: 13.01.9D

D25A — SIGNAL NO(S)
DUTCHESS — COUNTY
DATE
PAGE ____ OF ____ PAGES

HWP # 8-95-1120



FACES



1170

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	10	3	5	5	10	3		
Gap, Ext		1	2			1		
Max 1	35	15	40	40	35	15		
Max 2								
Yel Clearance	4	4	4	4	4	4	3.5	3.5
Red Clearance	1	1	1	1	1	1	1.5	1.5
Walk	8		8					
Ped Clearance	15		15					
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								
Options [1.1.2]	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Enable	ON	ON	ON	ON	ON	ON		
Min Recall								
Max Recall	ON				ON			
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry	ON				ON			
Enable Simul Gap	ON	ON	ON	ON	ON	ON	ON	ON
Gaurantee Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								
Options+ [1.1.3]	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	75	0	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	90	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	0	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1
Split		1	2	3	4	5	6	7	8	Split		1	2	3	4	5	6	7	8
1	Coor	30	15	30	0	30	15	30	0	13	Coor	0	0	0	0	0	0	0	0
	1	Max	NON	NON	OMT	Max	NON	NON	OMT			NON	NON	NON	NON	NON	NON	NON	NON
2	Coor	30	20	40	0	30	20	40	0	14	Coor	0	0	0	0	0	0	0	0
	1	Max	NON	NON	OMT	Max	NON	NON	OMT			NON	NON	NON	NON	NON	NON	NON	NON
3	Coor	0	0	0	0	0	0	0	0	15	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
4	Coor	0	0	0	0	0	0	0	0	16	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
5	Coor	0	0	0	0	0	0	0	0	17	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
6	Coor	0	0	0	0	0	0	0	0	18	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
7	Coor	0	0	0	0	0	0	0	0	19	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
8	Coor	0	0	0	0	0	0	0	0	20	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
9	Coor	0	0	0	0	0	0	0	0	21	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
10	Coor	0	0	0	0	0	0	0	0	22	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
11	Coor	0	0	0	0	0	0	0	0	23	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
12	Coor	0	0	0	0	0	0	0	0	24	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

2925

Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	Green	ON
2	1	Red	ON
3	1	Red	ON
4	1	Red	ON
5	2	Green	ON
6	2	Red	ON
7	2	Red	OFF
8	2	Red	OFF

Coord Modes [2.1]

Test OpMode	0
Correction	SHRT/LNG
Maximum	MAX 1
Force-Off	Float
Closed Loop	ON
Stop-in-Walk	ON
Auto Reset	ON
Expand Splt	OFF
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	PH OVER
Flash Yel	45
Flash Red	20

Unit Params [1.2.1]

Phase Mode	STD8
IO Mode	User
Loc Flsh Start	ON
Start Flash(s)	0
Start AllRed(s)	0
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	0
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

Overlap 1-16 Program Parms & Parm+ [1.5.2.1] [1.5.2.2]

Overlap Conflict Lock	OFF	Overlap Lock Inhibit	OFF	Parent Ph Clearance	OFF	Extra Included Ph	ON

	Included Ø	2	3	4					Type	NORMAL		Included Ø									Type	NORMAL
1	Modifier Ø	3							Grn		9	Modifier Ø									Grn	
	Conflict Ø								Yel	4		Conflict Ø									Yel	3.5
A	Conflict Olap								Red	1	I	Conflict Olap									Red	1.5
	Conflict Ped								LG			Conflict Ped									LG	
	Included Ø	3	4						Type	NORMAL		Included Ø									Type	NORMAL
2	Modifier Ø								Grn		10	Modifier Ø									Grn	
	Conflict Ø								Yel	4		Conflict Ø									Yel	3.5
B	Conflict Olap								Red	1	J	Conflict Olap									Red	1.5
	Conflict Ped								LG			Conflict Ped									LG	
	Included Ø								Type	NORMAL		Included Ø									Type	NORMAL
3	Modifier Ø								Grn		11	Modifier Ø									Grn	
	Conflict Ø								Yel	3.5		Conflict Ø									Yel	3.5
C	Conflict Olap								Red	1.5	K	Conflict Olap									Red	1.5
	Conflict Ped								LG			Conflict Ped									LG	
	Included Ø								Type	NORMAL		Included Ø									Type	NORMAL
4	Modifier Ø								Grn		12	Modifier Ø									Grn	
	Conflict Ø								Yel	3.5		Conflict Ø									Yel	3.5
D	Conflict Olap								Red	1.5	L	Conflict Olap									Red	1.5
	Conflict Ped								LG			Conflict Ped									LG	
	Included Ø								Type	NORMAL		Included Ø									Type	NORMAL
5	Modifier Ø								Grn		13	Modifier Ø									Grn	
	Conflict Ø								Yel	3.5		Conflict Ø									Yel	3.5
E	Conflict Olap								Red	1.5	M	Conflict Olap									Red	1.5
	Conflict Ped								LG			Conflict Ped									LG	
	Included Ø								Type	NORMAL		Included Ø									Type	NORMAL
6	Modifier Ø								Grn		14	Modifier Ø									Grn	
	Conflict Ø								Yel	3.5		Conflict Ø									Yel	3.5
F	Conflict Olap								Red	1.5	N	Conflict Olap									Red	1.5
	Conflict Ped								LG			Conflict Ped									LG	
	Included Ø								Type	NORMAL		Included Ø									Type	NORMAL
7	Modifier Ø								Grn		15	Modifier Ø									Grn	
	Conflict Ø								Yel	3.5		Conflict Ø									Yel	3.5
G	Conflict Olap								Red	1.5	O	Conflict Olap									Red	1.5
	Conflict Ped								LG			Conflict Ped									LG	
	Included Ø								Type	NORMAL		Included Ø									Type	NORMAL
8	Modifier Ø								Grn		16	Modifier Ø									Grn	
	Conflict Ø								Yel	3.5		Conflict Ø									Yel	3.5
H	Conflict Olap								Red	1.5	P	Conflict Olap									Red	1.5
	Conflict Ped								LG			Conflict Ped									LG	

Channel Settings [1.8.1]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Phase / Olap #	1	2	3	3	5	6	1	1					2	3										
Channel Type	VEH	VEH	VEH	PED	VEH	VEH	PED	OLP	VEH	VEH	VEH	VEH	OLP	PED	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Channel Flash	YEL	DRK	Red	DRK	YEL	DRK	DRK	Red	Red	Red	Red	Red	Red	DRK	Red	Red	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								

Channel+ Settings [1.8.4]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Flash Red+																								
Flash Yellow+																								
Flash Green+																								
Flash Inh Red+																								
Olap Ovrd																								

Coord Transition, CoorPhs [2.5]

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	RetHld	Float	Min Veh Perm	Min Ped Perm
1	12	22							EndGRN				
2	12	22							EndGRN				
3	12	22							EndGRN				
4	12	22							EndGRN				
5	12	22							EndGRN				
6	12	22							EndGRN				
7	12	22							EndGRN				
8	12	22							EndGRN				
9	12	22							EndGRN				
10	12	22							EndGRN				
11	12	22							EndGRN				
12	12	22							EndGRN				
13	12	22							EndGRN				
14	12	22							EndGRN				
15	12	22							EndGRN				
16	12	22							EndGRN				
17	12	22							EndGRN				
18	12	22							EndGRN				
19	12	22							EndGRN				
20	12	22							EndGRN				
21	12	22							EndGRN				
22	12	22							EndGRN				
23	12	22							EndGRN				
24	12	22							EndGRN				
25									BegGRN				
26									BegGRN				
27									BegGRN				
28									BegGRN				
29									BegGRN				
30									BegGRN				
31									BegGRN				
32									BegGRN				
33									BegGRN				
34									BegGRN				
35									BegGRN				
36									BegGRN				
37									BegGRN				
38									BegGRN				
39									BegGRN				
40									BegGRN				
41									BegGRN				
42									BegGRN				
43									BegGRN				
44									BegGRN				
45									BegGRN				
46									BegGRN				
47									BegGRN				
48									BegGRN				

Channel Params[1.8.3]

C1 IO Mode	User	Single BIU Map	SINGLE	Invert Rail Input	OFF

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1							45	50	2
2	2		3				45	50	10
3	3		3				45	50	20
4							45	50	2
5							45	50	2
6	6		3				45	50	10
7							45	50	2
8							45	50	2
9							45	50	2
10							45	50	2
11							45	50	2
12							45	50	2
13	3		3				45	50	20
14	3		5				45	50	20
15							45	50	2
16							45	50	2
17							45	50	2
18							45	50	2
19							45	50	
20							45	50	
21							45	50	
22							45	50	
23							45	50	
24							45	50	
25							45	50	
26							45	50	
27							45	50	
28							45	50	
29							45	50	
30							45	50	
31							45	50	
32							45	50	

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
33							45	50	
34							45	50	
35							45	50	
36							45	50	
37							45	50	
38							45	50	
39							45	50	
40							45	50	
41							45	50	
42							45	50	
43							45	50	
44							45	50	
45							45	50	
46							45	50	
47							45	50	
48							45	50	
49							45	50	
50							45	50	
51							45	50	
52							45	50	
53							45	50	
54							45	50	
55							45	50	
56							45	50	
57							45	50	
58							45	50	
59							45	50	
60							45	50	
61							45	50	
62							45	50	
63							45	50	
64							45	50	

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	ON	ON		ON				
2	ON	ON		ON				
3	ON	ON		ON				
4	ON	ON		ON				
5	ON	ON		ON				
6	ON	ON		ON				
7	ON	ON		ON				
8	ON	ON		ON				
9	ON	ON		ON				
10	ON	ON		ON				
11	ON	ON		ON				
12	ON	ON		ON				
13	ON	ON		ON				
14	ON	ON		ON				
15	ON	ON		ON				
16	ON	ON		ON				
17	ON	ON		ON				
18	ON	ON		ON				
19	ON	ON		ON				
20	ON	ON		ON				
21	ON	ON		ON				
22	ON	ON		ON				
23	ON	ON		ON				
24	ON	ON		ON				
25	ON	ON		ON				
26	ON	ON		ON				
27	ON	ON		ON				
28	ON	ON		ON				
29	ON	ON		ON				
30	ON	ON		ON				
31	ON	ON		ON				
32	ON	ON		ON				

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add AddInit	Red Lock	Yell Lock	occ	vol
33	ON	ON		ON				
34	ON	ON		ON				
35	ON	ON		ON				
36	ON	ON		ON				
37	ON	ON		ON				
38	ON	ON		ON				
39	ON	ON		ON				
40	ON	ON		ON				
41	ON	ON		ON				
42	ON	ON		ON				
43	ON	ON		ON				
44	ON	ON		ON				
45	ON	ON		ON				
46	ON	ON		ON				
47	ON	ON		ON				
48	ON	ON		ON				
49	ON	ON		ON				
50	ON	ON		ON				
51	ON	ON		ON				
52	ON	ON		ON				
53	ON	ON		ON				
54	ON	ON		ON				
55	ON	ON		ON				
56	ON	ON		ON				
57	ON	ON		ON				
58	ON	ON		ON				
59	ON	ON		ON				
60	ON	ON		ON				
61	ON	ON		ON				
62	ON	ON		ON				
63	ON	ON		ON				
64	ON	ON		ON				

Parameters+ 1-64 [5.3]

Det #	oc G	oc Y	oc R	Dlay 1	Dlay 2	Type	Src
1						NORM	
2						NORM	
3						NORM	
4						NORM	
5						NORM	
6						NORM	
7						NORM	
8						NORM	
9						NORM	
10						NORM	
11						NORM	
12						NORM	
13						NORM	
14						NORM	
15						NORM	
16						NORM	
17						NORM	
18						NORM	
19						NORM	
20						NORM	
21						NORM	
22						NORM	
23						NORM	
24						NORM	
25						NORM	
26						NORM	
27						NORM	
28						NORM	
29						NORM	
30						NORM	
31						NORM	
32						NORM	

Parameters+ 1-64 [5.3]

Det #	occ Grn	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src
33						NORM	
34						NORM	
35						NORM	
36						NORM	
37						NORM	
38						NORM	
39						NORM	
40						NORM	
41						NORM	
42						NORM	
43						NORM	
44						NORM	
45						NORM	
46						NORM	
47						NORM	
48						NORM	
49						NORM	
50						NORM	
51						NORM	
52						NORM	
53						NORM	
54						NORM	
55						NORM	
56						NORM	
57						NORM	
58						NORM	
59						NORM	
60						NORM	
61						NORM	
62						NORM	
63						NORM	
64						NORM	

Ped Det Parms [5.4]

Det #	Call Ø	No Act	Max Pres	Err Cnt
1	1		15	
2	3		15	
3			15	
4			15	
5			15	
6			15	
7			15	
8			15	

Unit Paramters [1.2.1]

TS2 Det Faults	ON

Vol/Occ Report Parm [1.5.8]

Vol/Occ Period Minutes	0
Vol/Occ Period Minutes	15

Preemption Times [3.1], Options+ [3.6]

Pre #	Enable	Type	Output	Delay	MinDura
1	ON	RAIL	Dwell		
2	ON	RAIL	Dwell		
3	ON	EMERG	Dwell		
4	ON	EMERG	Dwell		
5	ON	EMERG	Dwell		
6	ON	EMERG	Dwell		

Pre #	MaxPres	MinGrn	MinWlk	PedClr	Co+Pre
1					ON
2					ON
3	40			15	ON
4					ON
5					ON
6					ON

Pre #	Track Grn	Min Dwell	Ext Dwell	PedClr+	Yel
1		2			
2		2			
3		40			4
4		2			
5		2			
6		2			

Pre #	Red	Pattern	Skip
1			OFF
2			OFF
3	1		OFF
4			OFF
5			OFF
6			OFF

Low Priority Preempts

Pre #	Type	Min	Max
7	OFF		
8	OFF		
9	OFF		
10	OFF		

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	PRE
Max Seek Track Time	
Max Seek Dwell Time	

Channel Parameters [1.8.3]

D Conn Mappings	None
Pre Invert Rail Input	OFF

Track Clear Phases [3.2], Track Clear Overlaps+ [3.5]

Pre #	Track Phases	Track Overlaps
1		
2		
3		
4		
5		
6		

Dwell Phases [3.2] and Overlaps+ [3.5]

Pre #		
1	Phases	
	Overlap	
	Peds	
2	Phases	
	Overlap	
	Peds	
3	Phases	4
	Overlap	1 2
	Peds	
4	Phases	
	Overlap	
	Peds	
5	Phases	
	Overlap	
	Peds	
6	Phases	
	Overlap	
	Peds	

Exit Phases [3.2]

Pre #	Exit Phase
1	
2	
3	
4	
5	
6	

Preemption Options+ [3.6]

Pre #	Lock	Override Auto Flsh	Override Higher	Flsh Dwell	Link
1	ON	ON	ON	OFF	
2	ON	ON	ON	OFF	
3	ON	ON	ON	OFF	
4	ON	ON	ON	OFF	
5	ON	ON	ON	OFF	
6	ON	ON	ON	OFF	

Alt# 1 Times Table [1.1.6.1.2]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1.2]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1.3]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2.1]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 1 Veh Parameters [5.5.1.1]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Swiitch																
Delay																
Extend																
Queue																
No Activity																
Max Presence																
Erratic Count																
Fail Time																

Alt# 1 Veh Options [5.5.1.2]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Extend																
Queue																
Added Initial																
Red Lock																
Yellow Lock																
Occupancy																
Volume																

Alt# 1 Veh Parameters+ [5.5.1.3]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Occ-on-green																
Occ-on-yellow																
Occ-on-red																
Delay Phase 1																
Delay Phase 2																
Detector Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Source																

Alt# 1 Ped Parameters+ [5.5.1.4]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Det#								
Call								
No Activity								
Max Presence								
Erratic Count								

Alt# 2 Options Table [1.1.6.2.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 3 Options Table [1.1.6.2.3]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 4 Options Table [1.1.6.2.4]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Alt# 2 Veh Parameters [5.5.2.1]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Swiitch																
Delay																
Extend																
Queue																
No Activity																
Max Presence																
Erratic Count																
Fail Time																

Alt# 2 Veh Options [5.5.2.2]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Call																
Extend																
Queue																
Added Initial																
Red Lock																
Yellow Lock																
Occupancy																
Volume																

Alt# 2 Veh Parameters+ [5.5.2.3]

Column#..... ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Assign Det#																
Occ-on-green																
Occ-on-yellow																
Occ-on-red																
Delay Phase 1																
Delay Phase 2																
Detector Mode	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM	NORM
Source																

Alt# 2 Ped Parameters+ [5.5.2.4]

Column#..... ->	1	2	3	4	5	6	7	8
Assign Det#								
Call								
No Activity								
Max Presence								
Erratic Count								

Annual Schedule [4.3]	Month of Year												Day of Week							Date																											Day Plan	Link To
1	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON		ON	ON	ON	ON	ON		ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	1	
2	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON						ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	ON	2	
3	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
4	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
5	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
6	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
7	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
8	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
9	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
10	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
11	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
12	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
13	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
14	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
15	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
16	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
17	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
18	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
19	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
20	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
21	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
22	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
23	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	
24	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
																																																	1	

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Day Plans [4.4]

Day Plan 1

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	6	30	1	10	0	0	0
3	16	0	2	11	0	0	0
4	19	0	1	12	0	0	0
5	22	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 2

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	6	30	1	10	0	0	0
3	22	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 3

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 4

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 5

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 6

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 7

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 8

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 9

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 10

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 11

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 12

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 13

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 14

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 15

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Action Table [4.5]

Act#	Pat#	A1	A2	A3	S1	S2	S3	S4	S5	S6	S7	S8
1	1											
2	2											
3	3											
4	4											
5	5											
6	6											
7	7											
8	8											
9	9											
10	10											
11	11											
12	12											
13	13											
14	14											
15	15											
16	16											
17	17											
18	18											
19	19											
20	20											
21	21											
22	22											
23	23											
24	24											
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
48												
98												
99												
100	255											

Coord Alternate Tables - Pat+ [2.6]

								Overlap Off										
Pat#	ØOpt	ØTime	DetG	Call Inh	CIC	CNA1	1	2	3	4	5	6	7	8	Dia	Max2
1															DFT	
2															DFT	
3															DFT	
4															DFT	
5															DFT	
6															DFT	
7															DFT	
8															DFT	
9															DFT	
10															DFT	
11															DFT	
12															DFT	
13															DFT	
14															DFT	
15															DFT	
16															DFT	
17															DFT	
18															DFT	
19															DFT	
20															DFT	
21															DFT	
22															DFT	
23															DFT	
24															DFT	
25															DFT	
26															DFT	
27															DFT	
28															DFT	
29															DFT	
30															DFT	
31															DFT	
32															DFT	
33															DFT	
34															DFT	
35															DFT	
36															DFT	
37															DFT	
38															DFT	
39															DFT	
40															DFT	
41															DFT	
42															DFT	
43															DFT	
44															DFT	
45															DFT	
46															DFT	
47															DFT	
48															DFT	

C1-USER IO Map [1.8.9.1 In]

I1-1	189	Unused
I1-2	2	Veh Call 2
I1-3	3	Veh Call 3
I1-4	189	Unused
I1-5	189	Unused
I1-6	6	Veh Call 6
I1-7	189	Unused
I1-8	189	Unused
I2-1	189	Unused
I2-2	189	Unused
I2-3	189	Unused
I2-4	189	Unused
I2-5	13	Veh Call 13
I2-6	14	Veh Call 14
I2-7	189	Unused
I2-8	189	Unused
I3-1	189	Unused
I3-2	189	Unused
I3-3	189	Unused
I3-4	189	Unused
I3-5	129	Ped Call 1
I3-6	130	Ped Call 2
I3-7	130	Ped Call 2
I3-8	200	Pre 3 In
I4-1	**189**	Unused
I4-2	**189**	Unused
I4-3	**189**	Unused
I4-4	**189**	Unused
I4-5	179	Door Open
I4-6	189	Unused
I4-7	229	33xCMUStop
I4-8	228	33xFlashSns
I5-1	189	Unused
I5-2	189	Unused
I5-3	189	Unused
I5-4	189	Unused
I5-5	189	Unused
I5-6	189	Unused
I5-7	189	Unused
I5-8	189	Unused
I6-1	189	Unused
I6-2	189	Unused
I6-3	189	Unused
I6-4	189	Unused
I6-5	189	Unused
I6-6	189	Unused
I6-7	189	Unused
I6-8	189	Unused

C1-USER IO Map [1.8.9.2 Out]

O1-1	1	Ch1 Red
O1-2	49	Ch1 Green
O1-3	2	Ch2 Red
O1-4	26	Ch2 Yellow
O1-5	50	Ch2 Green
O1-6	3	Ch3 Red
O1-7	27	Ch3 Yellow
O1-8	51	Ch3 Green
O2-1	4	Ch4 Red
O2-2	52	Ch4 Green
O2-3	5	Ch5 Red
O2-4	29	Ch5 Yellow
O2-5	53	Ch5 Green
O2-6	6	Ch6 Red
O2-7	30	Ch6 Yellow
O2-8	54	Ch6 Green
O3-1	7	Ch7 Red
O3-2	55	Ch7 Green
O3-3	8	Ch8 Red
O3-4	32	Ch8 Yellow
O3-5	56	Ch8 Green
O3-6	9	Ch9 Red
O3-7	33	Ch9 Yellow
O3-8	57	Ch9 Green
O4-1	10	Ch10 Red
O4-2	58	Ch10 Green
O4-3	11	Ch11 Red
O4-4	35	Ch11 Yellow
O4-5	137	PreemptActv
O4-6	12	Ch12 Red
O4-7	36	Ch12 Yellow
O4-8	60	Ch12 Green
O5-1	28	Ch4 Yellow
O5-2	34	Ch10 Yellow
O5-3	25	Ch1 Yellow
O5-4	31	Ch7 Yellow
O5-5	39	Ch15 Yellow
O5-6	63	Ch15 Green
O5-7	115	Not Used
O5-8	114	Watchdog
O6-1	115	Not Used
O6-2	115	Not Used
O6-3	13	Ch13 Red
O6-4	37	Ch13 Yellow
O6-5	61	Ch13 Green
O6-6	14	Ch14 Red
O6-7	38	Ch14 Yellow
O6-8	62	Ch14 Green

C1-USER IO Map [1.8.9.2 Out]

O7-1	40	Ch16 Yellow
O7-2	16	Ch16 Red
O7-3	64	Ch16 Green
O7-4	115	Not Used
O7-5	115	Not Used
O7-6	115	Not Used
O7-7	115	Not Used
O7-8	15	Ch15 Red

C11S-USER IO Map [1.8.9.1 In]

I4-1		
I4-2		
I4-3		
I4-4		
I7-1	189	Unused
I7-2	189	Unused
I7-3	189	Unused
I7-4	189	Unused
I7-5	189	Unused
I7-6	189	Unused
I7-7	189	Unused
I7-8	189	Unused
I8-1	189	Unused
I8-2	189	Unused
I8-3	189	Unused
I8-4	189	Unused
I8-5	189	Unused
I8-6	189	Unused
I8-7	189	Unused
I8-8	189	Unused

C11S-USER IO Map [1.8.9.2 Out]

O8-1	115	Not Used
O8-2	115	Not Used
O8-3	115	Not Used
O8-4	115	Not Used
O8-5	115	Not Used
O8-6	115	Not Used
O8-7	115	Not Used
O8-8	115	Not Used

IO Logic [1.8.7]

Op1	Result		O1Fcn	Inv1	IO1	Opn1	O2Fcn	Inv2	IO2	Opn2	O3Fcn	Inv3	IO3	Opn3	Dly	Sec
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0
I	0	□	-----	-	I	0	-----	-	I	0	-----	-	I	0	DLY	0

Security Access Levels [8.2]

1	SWLOAD
2	SECURE
3	None
4	None
5	None
6	None
7	None
8	None
9	None
10	None
11	None
12	None
13	None
14	None
15	None
16	None
17	None
18	None
19	None
20	None
21	None
22	None
23	None
24	None
25	None
26	None
27	None
28	None
29	None
30	None
31	None
32	None
33	None
34	None
35	None
36	None
37	None
38	None
39	None
40	None
41	None
42	None
43	None
44	None
45	None
46	None
47	None
48	None
49	None
50	None
51	None
52	None
53	None
54	None
55	None
56	None
57	None
58	None
59	None
60	None
61	None
62	None
63	None
64	None

Com Parameters [6.1]

Station ID	2925
Group ID	
Master ID	0
Backup Time	0

SysUp Modem [6.1]

Enable Modem	OFF
Idle Time	0
Dial Time	0
Tel:	
Alt:	

2070 Port Parms [6.2]

Port	Baud Rate	FCM
SP1	9600	MODE 6
SP2	9600	MODE 6
SP3	19200	MODE 6
SP4	38400	MODE 6
SP5	1200	AUTO
SP6	1200	AUTO
SP7	1200	AUTO
SP8	1200	AUTO

2070 IP 1 Addressing [6.5]

	Addressing			
Addr	0	0	0	0
Mask	0	0	0	0
Brdcst	0	0	0	0
GtWay	0	0	0	0
Port	0			

2070 IP 2 Addressing [6.5]

	Addressing			
Addr	0	0	0	0
Mask	0	0	0	0
Brdcst	0	0	0	0
GtWay	0	0	0	0
Port	0			

2070 Port Binding Ports [6.6]

	Port	Echo	Mode
ASYNC1	SP1	OFF	0
ASYNC2	SP2	OFF	0
ASYNC3	SP3	OFF	0
ASYNC4	SP4	OFF	0
SYNC1	SP5S	SYNC3	OFF
SYNC2	OFF	SYNC4	OFF

2070 Port Binding Functions [6.6]

Function	Channel	Function	Channel
TS2/CVM	None	SYSUp	ASYNC2
CMU/MMU	None	SYSDown	ASYNC1
Opticom	None	Shell	None
Loop Det.	None		
GPS	-		

#	Event / Alarm	Ev	Alr
1	Power Up Alarm.	ON	ON
2	Stop Timing	ON	ON
3	TS1 Cabinet Door		
4	Coordination Failure	ON	ON
5	External Alarm # 1	ON	ON
6	External Alarm # 2	ON	ON
7	External Alarm # 3		
8	External Alarm # 4		
9	Closed Loop Disabled	ON	ON
10	External Alarm # 5		
11	External Alarm # 6		
12	Manual Control Enable	ON	ON
13	Coord Free Input		
14	Local Flash Input	ON	ON
15	MMU Flash		
16	CMU Flash		
17	Cycle Fault	ON	ON
18	Cycle Failure	ON	ON
19	Coordination Fault	ON	ON
20	Controller Fault	ON	ON
21	Detector SDLC Failure		
22	MMU SDLC Failure		
23	Critical SDLC Failure		
24	Reserved		
25	EEPROM CRC Fault	ON	ON
26	Detector Diagnostic Failur		
27	BIU Detector Failure	ON	ON
32	Queue detector alarm	ON	ON
29	Ped Detector Fault	ON	ON
30	Coord Diagnostic Fault		
41	TempAlert Probe Ch. A		
42	TempAlert Probe Ch. B		
47	Coord Active		
48	Preempt Active	ON	ON
49	Preempt 1 Input	ON	ON
50	Preempt 2 Input	ON	ON
51	Preempt 3 Input	ON	ON
52	Preempt 4 Input	ON	ON
53	Preempt 5 Input	ON	ON
54	Preempt 6 Input	ON	ON
55	Preempt 7 Input	ON	ON
56	Preempt 8 Input	ON	ON
57	Preempt 9 Input	ON	ON
58	Preempt 10 Input	ON	ON
61	In Transition	ON	ON
81	FIO Status Alarm		

Call Phases[1.1.5]

Ø	Ø	Phases Called By Ø			
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					

Redirect Phases[1.1.5]

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

Inhibit Phases[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

Alt Call & Redirect # 1 [1.1.6.3]

Col	Ø	Phases Called By Ø					From	To	From	To	From	To	From	To
1						1								
2						2								
3						3								
4						4								
5						5								
6						6								
7						7								
8						8								

Alt Inhibit Phases # 1 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Alt Call & Redirect # 2 [1.1.6.3]

Col	Ø	Phases Called By Ø					From	To	From	To	From	To	From	To
1						1								
2						2								
3						3								
4						4								
5						5								
6						6								
7						7								
8						8								

Alt Inhibit Phases # 2 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Coord, CIC Plans [2.3]

CIC	CoØ	Grow	1	2	3	4	5	6	7	8
1	OFF									
2	OFF									
3	OFF									
4	OFF									

Auto Flash Phase/Olap Settings [1.4.2]

Yel Ø								
Yel (olaps)								

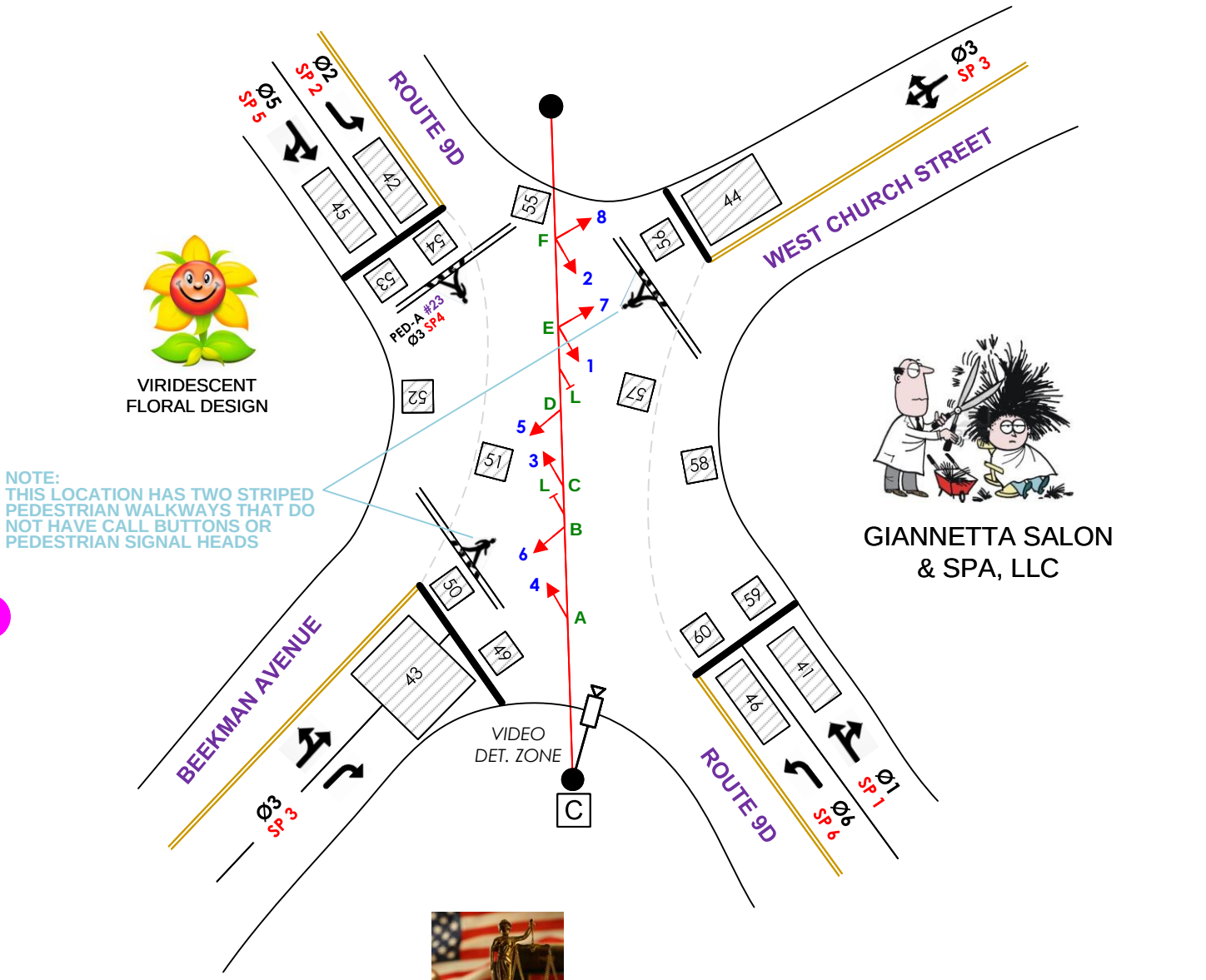
Unit Parameters [1.2.1]

Allow Skip Yellow	OFF	Max Cycle Time	
TOD Dim Enable	OFF	Cycle Fault Action	Alarm
Tone Disable	OFF		
Diamond Mode	4Ph		
Backup Time (s)	900		
Disable Init Ped	OFF		
Cycle Fault Action	Alarm		
Enable Run Timer	ON		

D-26A
Signal #

STATE OF NEW YORK - DEPARTMENT OF TRANSPORTATION
TRAFFIC AND SAFETY DIVISION
in the City of ***BEACON***

Signal: **D-26A**
File: 13.01-9D
D/HWP: D256460
PIN: _____



VIRIDESCENT FLORAL DESIGN

NOTE:
THIS LOCATION HAS TWO STRIPED PEDESTRIAN WALKWAYS THAT DO NOT HAVE CALL BUTTONS OR PEDESTRIAN SIGNAL HEADS

GIANNETTA SALON & SPA, LLC



TABLE OF SIGNS

ONLY
L

Phase Sequence

1	2	3	
5	6		

NORTH

2022 PLAN OF OPERATION

Printed: 2/2/2023

1181

Phase Times [1.1.1]

	1	2	3	4	5	6	7	8
Min Green	10	3	5		10	3		5
Gap, Ext	2	1	2		2	1		2
Max 1	35	15	40		35	15		40
Max 2								
Yel Clearance	4	4	4	3.5	4	4	3.5	4
Red Clearance	1	1	1	1.5	1	1	1.5	1
Walk			8					
Ped Clearance			15					
Red Revert								
Add Initial								
Max Initial								
Time B4 Reduct								
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Options [1.1.2]

	1	2	3	4	5	6	7	8
Enable	ON	ON	ON		ON	ON		ON
Min Recall	ON				ON			
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry								
Auto Flash Exit								
Dual Entry	ON				ON			
Enable Simul Gap	ON	ON	ON	ON	ON	ON	ON	ON
Gaurantee Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								

Options+ [1.1.3]

	1	2	3	4	5	6	7	8
Reservice								
PedClr Thru Yel								
Skip Red No Call								
Red Rest								
Max II								
Call Phase								
Conflicting Phase								
Omit Yellow								
Ped Delay								
Grn/Ped Delay								

Coordination Patterns [2.4] and Coordination Split Tables [2.7.1]

Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq	Pat#	Cyc	Off	Split	Seq
1	0	0	1	1	13	0	0	13	1	25	0	0	0	1	37	0	0	0	1
2	0	0	2	1	14	0	0	14	1	26	0	0	0	1	38	0	0	0	1
3	0	0	3	1	15	0	0	15	1	27	0	0	0	1	39	0	0	0	1
4	0	0	4	1	16	0	0	16	1	28	0	0	0	1	40	0	0	0	1
5	0	0	5	1	17	0	0	17	1	29	0	0	0	1	41	0	0	0	1
6	0	0	6	1	18	0	0	18	1	30	0	0	0	1	42	0	0	0	1
7	0	0	7	1	19	0	0	19	1	31	0	0	0	1	43	0	0	0	1
8	0	0	8	1	20	0	0	20	1	32	0	0	0	1	44	0	0	0	1
9	0	0	9	1	21	115	0	21	1	33	0	0	0	1	45	0	0	0	1
10	0	0	10	1	22	0	0	22	1	34	0	0	0	1	46	0	0	0	1
11	0	0	11	1	23	0	0	23	1	35	0	0	0	1	47	0	0	0	1
12	0	0	12	1	24	0	0	24	1	36	0	0	0	1	48	0	0	0	1

Split		1	2	3	4	5	6	7	8	Split		1	2	3	4	5	6	7	8
1	Coor	0	0	0	0	0	0	0	0	13	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
2	Coor	0	0	0	0	0	0	0	0	14	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
3	Coor	0	0	0	0	0	0	0	0	15	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
4	Coor	0	0	0	0	0	0	0	0	16	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
5	Coor	0	0	0	0	0	0	0	0	17	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
6	Coor	0	0	0	0	0	0	0	0	18	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
7	Coor	0	0	0	0	0	0	0	0	19	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
8	Coor	0	0	0	0	0	0	0	0	20	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
9	Coor	0	0	0	0	0	0	0	0	21	Coor	55	20	40	0	55	20	0	40
		NON	NON	NON	NON	NON	NON	NON	NON		5	Max	NON	NON	NON	Max	NON	NON	NON
10	Coor	0	0	0	0	0	0	0	0	22	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
11	Coor	0	0	0	0	0	0	0	0	23	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON
12	Coor	0	0	0	0	0	0	0	0	24	Coor	0	0	0	0	0	0	0	0
		NON	NON	NON	NON	NON	NON	NON	NON			NON	NON	NON	NON	NON	NON	NON	NON

Page#	
1	8 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
1A&1B	16 Phase Times/Options; Patterns/Splits; Ring Startup; Coord/Flash Mode; Unit Param
2	Overlaps; Channel Settings; Coord Alt Table+ (values not associated with time-of-day)
3	Detection; Sample Time and Unit Parameters related to detection
4	Preemption and Alternate Phase Time and Phase Options
5	Annual Schedule
6	Day Plans; Action Tables; Coord Alt Table+ (values varied by time-of-day)
7	Communications; Secutiry; I/O Setup
8	Misc - Events/Alarms; Call/Inhibit/Redirect; P/OLAP Auto Flash; CIC; Misc Unit Param

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Ring/Startup [1.1.4]

Phs	Ring	Start	Enable
1	1	Green	ON
2	1	Red	ON
3	1	Red	ON
4	1	Red	OFF
5	2	Green	ON
6	2	Red	ON
7	2	Red	OFF
8	2	Red	ON

Coord Modes [2.1]

Test OpMode	254
Correction	SHRT/LNG
Maximum	MAX INH
Force-Off	FIXED
Closed Loop	ON
Stop-in-Walk	ON
Auto Reset	ON
Expand Splt	
Ped Recycle	NO_RECYCLE
Before	TIMED
After	TIMED

Auto Flash [1.4.1]

Auto Flash	PH_OVLP
Flash Yel	45
Flash Red	20

Unit Params [1.2.1]

Phase Mode	User
IO Mode	User
Loc Flsh Start	ON
Start Flash(s)	0
Start AllRed(s)	0
Yellow < 3"	OFF
Display Time	20
Red Revert	3
MCE Timeout	0
Feature Profile	
Free Ring Seq	1
Auxswitch	STOPTM
SDLC Retry	0
TS2 Det Faults	ON
Auto Ped Clear	OFF
SDLC Retry	0

Overlap 1-16 Program Parms & Parm+ [1.5.2.1] [1.5.2.2]

Overlap Conflict Lock	OFF	Overlap Lock Inhibit	OFF	Parent Ph Clearance	ON	Extra Included Ph	OFF

	Included Ø								Type	NORMAL		Included Ø								Type	NORMAL
1	Modifier Ø								Grn		9	Modifier Ø								Grn	
	Conflict Ø								Yel	3.5		Conflict Ø								Yel	3.5
A	Conflict Olap								Red	1.5	I	Conflict Olap								Red	1.5
	Conflict Ped								LG			Conflict Ped								LG	
	Included Ø								Type	NORMAL		Included Ø								Type	NORMAL
2	Modifier Ø								Grn		10	Modifier Ø								Grn	
	Conflict Ø								Yel	3.5		Conflict Ø								Yel	3.5
B	Conflict Olap								Red	1.5	J	Conflict Olap								Red	1.5
	Conflict Ped								LG			Conflict Ped								LG	
	Included Ø								Type	NORMAL		Included Ø								Type	NORMAL
3	Modifier Ø								Grn		11	Modifier Ø								Grn	
	Conflict Ø								Yel	3.5		Conflict Ø								Yel	3.5
C	Conflict Olap								Red	1.5	K	Conflict Olap								Red	1.5
	Conflict Ped								LG			Conflict Ped								LG	
	Included Ø								Type	NORMAL		Included Ø								Type	NORMAL
4	Modifier Ø								Grn		12	Modifier Ø								Grn	
	Conflict Ø								Yel	3.5		Conflict Ø								Yel	3.5
D	Conflict Olap								Red	1.5	L	Conflict Olap								Red	1.5
	Conflict Ped								LG			Conflict Ped								LG	
	Included Ø								Type	NORMAL		Included Ø								Type	NORMAL
5	Modifier Ø								Grn		13	Modifier Ø								Grn	
	Conf o0l								Yel	3.5		Conflict Ø								Yel	3.5
E	Conflict Olap								Red	1.5	M	Conflict Olap								Red	1.5
	Conflict Ped								LG			Conflict Ped								LG	
	Included Ø								Type	NORMAL		Included Ø								Type	NORMAL
6	Modifier Ø								Grn		14	Modifier Ø								Grn	
	Conflict Ø								Yel	3.5		Conflict Ø								Yel	3.5
F	Conflict Olap								Red	1.5	N	Conflict Olap								Red	1.5
	Conflict Ped								LG			Conflict Ped								LG	
	Included Ø								Type	NORMAL		Included Ø								Type	NORMAL
7	Modifier Ø								Grn		15	Modifier Ø								Grn	
	Conflict Ø								Yel	3.5		Conflict Ø								Yel	3.5
G	Conflict Olap								Red	1.5	O	Conflict Olap								Red	1.5
	Conflict Ped								LG			Conflict Ped								LG	
	Included Ø								Type	NORMAL		Included Ø								Type	NORMAL
8	Modifier Ø								Grn		16	Modifier Ø								Grn	
	Conflict Ø								Yel	3.5		Conflict Ø								Yel	3.5
H	Conflict Olap								Red	1.5	P	Conflict Olap								Red	1.5
	Conflict Ped								LG			Conflict Ped								LG	

Channel Settings [1.8.1]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Phase / Olap #	1	2	3	3	5	6							3											
Channel Type	VEH	VEH	VEH	PED	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH	VEH
Channel Flash	Red	YEL	Red	DRK	Red	YEL	Red	Red	Red	Red	Red	Red	Red	Red	Red	Red	DRK	DRK	DRK	DRK	DRK	DRK	DRK	DRK
Alt Hz																								

Channel+ Settings [1.8.4]

.....Channel ->>	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Flash Red+																								
Flash Yellow+																								
Flash Green+																								
Flash Inh Red+																								
Olap Ovrd																								

Coord Transition, CoorPhs [2.5]

Pat#	Short	Long	Dwell	No Shortway Ø				E-Yld	Offset	RetHld	Float	Min Veh Perm	Min Ped Perm
1	12	22							EndGRN				
2	12	22							EndGRN				
3	12	22							EndGRN				
4	12	22							EndGRN				
5	12	22							EndGRN				
6	12	22							EndGRN				
7	12	22							EndGRN				
8	12	22							EndGRN				
9	12	22							EndGRN				
10	12	22							EndGRN				
11	12	22							EndGRN				
12	12	22							EndGRN				
13	12	22							EndGRN				
14	12	22							EndGRN				
15	12	22							EndGRN				
16	12	22							EndGRN				
17	12	22							EndGRN				
18	12	22							EndGRN				
19	12	22							EndGRN				
20	12	22							EndGRN				
21	12	22							EndGRN				
22	12	22							EndGRN				
23	12	22							EndGRN				
24	12	22							EndGRN				
25									BegGRN				
26									BegGRN				
27									BegGRN				
28									BegGRN				
29									BegGRN				
30									BegGRN				
31									BegGRN				
32									BegGRN				
33									BegGRN				
34									BegGRN				
35									BegGRN				
36									BegGRN				
37									BegGRN				
38									BegGRN				
39									BegGRN				
40									BegGRN				
41									BegGRN				
42									BegGRN				
43									BegGRN				
44									BegGRN				
45									BegGRN				
46									BegGRN				
47									BegGRN				
48									BegGRN				

Channel Params[1.8.3]

C1 IO Mode	User	Single BIU Map	DEFAULT	Invert Rail Input	OFF

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
1							45	50	2
2							45	50	2
3							45	50	2
4							45	50	2
5							45	50	2
6							45	50	2
7							45	50	2
8							45	50	2
9							45	50	2
10							45	50	2
11							45	50	2
12							45	50	2
13							45	50	2
14							45	50	2
15							45	50	2
16							45	50	2
17							45	50	2
18							45	50	2
19							45	50	
20							45	50	
21							45	50	
22							45	50	
23							45	50	
24							45	50	
25							45	50	
26							45	50	
27							45	50	
28							45	50	
29							45	50	
30							45	50	
31							45	50	
32							45	50	

Veh Par 1-64 [5.1]

Det #	Call Ø	Swi Ø	Dlay	Ext	Que	No Act	Max Pres	Err Cnt	Fail Time
33							45	50	
34							45	50	
35							45	50	
36							45	50	
37							45	50	
38							45	50	
39							45	50	
40							45	50	
41	1						45	50	25
42	2	5	2				45	50	10
43	3		3				45	50	25
44	3		3				45	50	25
45	5						45	50	25
46	6	1	2				45	50	10
47							45	50	
48							45	50	
49							45	50	
50							45	50	
51							45	50	
52							45	50	
53							45	50	
54							45	50	
55							45	50	
56							45	50	
57							45	50	
58							45	50	
59							45	50	
60							45	50	
61							45	50	
62							45	50	
63							45	50	
64							45	50	

Vehicle Options 1-64 [5.2]

Det #	Call	Ext	Que	Add Init	Red Lock	Yell Lock	occ	vol
1	ON	ON		ON				
2	ON	ON		ON				
3	ON	ON		ON				
4	ON	ON		ON				
5	ON	ON		ON				
6	ON	ON		ON				
7	ON	ON		ON				
8	ON	ON		ON				
9	ON	ON		ON				
10	ON	ON		ON				
11	ON	ON		ON				
12	ON	ON		ON				
13	ON	ON		ON				
14	ON	ON		ON				
15	ON	ON		ON				
16	ON	ON		ON				
17	ON	ON		ON				
18	ON	ON		ON				
19	ON	ON		ON				
20	ON	ON		ON				
21	ON	ON		ON				
22	ON	ON		ON				
23	ON	ON		ON				
24	ON	ON		ON				
25	ON	ON		ON				
26	ON	ON		ON				
27	ON	ON		ON				
28	ON	ON		ON				
29	ON	ON		ON				
30	ON	ON		ON				
31	ON	ON		ON				
32	ON	ON		ON				

Vehicle Options 1-64 [5.2]

Det #	vol	occ	Yell Lock	Red Lock	Ext	Add Init	Que	Call
33	ON	ON			ON	ON		ON
34	ON	ON			ON	ON		ON
35	ON	ON			ON	ON		ON
36	ON	ON			ON	ON		ON
37	ON	ON			ON	ON		ON
38	ON	ON			ON	ON		ON
39	ON	ON			ON	ON		ON
40	ON	ON			ON	ON		ON
41	ON	ON			ON	ON		ON
42	ON	ON			ON	ON		ON
43	ON	ON			ON	ON		ON
44	ON	ON			ON	ON		ON
45	ON	ON			ON	ON		ON
46	ON	ON			ON	ON		ON
47	ON	ON			ON	ON		ON
48	ON	ON			ON	ON		ON
49	ON	ON			ON	ON		ON
50	ON	ON			ON	ON		ON
51	ON	ON			ON	ON		ON
52	ON	ON			ON	ON		ON
53	ON	ON			ON	ON		ON
54	ON	ON			ON	ON		ON
55	ON	ON			ON	ON		ON
56	ON	ON			ON	ON		ON
57	ON	ON			ON	ON		ON
58	ON	ON			ON	ON		ON
59	ON	ON			ON	ON		ON
60	ON	ON			ON	ON		ON
61	ON	ON			ON	ON		ON
62	ON	ON			ON	ON		ON
63	ON	ON			ON	ON		ON
64	ON	ON			ON	ON		ON

Parameters+ 1-64 [5.3]

Det #	oc G	oc Y	oc R	Dlay 1	Dlay 2	Type	Src
1						NORM	
2						NORM	
3						NORM	
4						NORM	
5						NORM	
6						NORM	
7						NORM	
8						NORM	
9						NORM	
10						NORM	
11						NORM	
12						NORM	
13						NORM	
14						NORM	
15						NORM	
16						NORM	
17						NORM	
18						NORM	
19						NORM	
20						NORM	
21						NORM	
22						NORM	
23						NORM	
24						NORM	
25						NORM	
26						NORM	
27						NORM	
28						NORM	
29						NORM	
30						NORM	
31						NORM	
32						NORM	

Parameters+ 1-64 [5.3]

Det #	occ Grn	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src
33						NORM	
34						NORM	
35						NORM	
36						NORM	
37						NORM	
38						NORM	
39						NORM	
40						NORM	
41						NORM	
42						NORM	
43						NORM	
44						NORM	
45						NORM	
46						NORM	
47						NORM	
48						NORM	
49						NORM	
50						NORM	
51						NORM	
52						NORM	
53						NORM	
54						NORM	
55						NORM	
56						NORM	
57						NORM	
58						NORM	
59						NORM	
60						NORM	
61						NORM	
62						NORM	
63						NORM	
64						NORM	

Ped Det Parms [5.4]

Det #	Call Ø	No Act	Max Pres	Err Cnt
1	3		15	
2			15	
3			15	
4			15	
5			15	
6			15	
7			15	
8			15	

Unit Paramters [1.2.1]

TS2 Det Faults	ON

Vol/Occ Report Parm [1.5.8]

Vol/Occ Period Minutes	0
Vol/Occ Period Minutes	15

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Preemption Times [3.1], Options+ [3.6]

Pre #	Enable	Type	Output	Delay	MinDura
1	ON	RAIL	Dwell		
2	ON	RAIL	Dwell		
3	ON	EMERG	Dwell		
4	ON	EMERG	Dwell		
5	ON	EMERG	Dwell		
6	ON	EMERG	Dwell		

Pre #	MaxPres	MinGrn	MinWlk	PedClr	Co+Pre
1					ON
2					ON
3					ON
4					ON
5					ON
6					ON

Pre #	Track Grn	Min Dwell	Ext Dwell	PedClr+	Yel
1		2			
2		2			
3		2			
4		2			
5		2			
6		2			

Pre #	Red	Pattern	Skip
1			OFF
2			OFF
3			OFF
4			OFF
5			OFF
6			OFF

Low Priority Preempts

Pre #	Type	Min	Max
7	OFF		
8	OFF		
9	OFF		
10	OFF		

Unit Parameters [1.2.1]

Stop Timer Over Preempt	OFF
Preempt or Ext Output	PRE
Max Seek Track Time	
Max Seek Dwell Time	

Channel Parameters [1.8.3]

D Conn Mappings	OFF
Pre Invert Rail Input	None

Track Clear Phases [3.2], Track Clear Overlaps+ [3.5]

Pre #	Track Phases				Track Overlaps											
1																
2																
3																
4																
5																
6																

Dwell Phases [3.2] and Overlaps+ [3.5]

Pre #														
1	Phases													
	Overlaps													
	Peds													
2	Phases													
	Overlaps													
	Peds													
3	Phases													
	Overlaps													
	Peds													
4	Phases													
	Overlaps													
	Peds													
5	Phases													
	Overlaps													
	Peds													
6	Phases													
	Overlaps													
	Peds													

Exit Phases [3.2]

Pre #	Exit Phase			
1				
2				
3				
4				
5				
6				

Preemption 1, Options+ [3.6]

Pre #	Lock	Override Auto Flsh	Override Higher	Flsh Dwell	Link
1	ON	ON	ON	OFF	
2	ON	ON	ON	OFF	
3	ON	ON	ON	OFF	
4	ON	ON	ON	OFF	
5	ON	ON	ON	OFF	
6	ON	ON	ON	OFF	

Alt# 1 Times Table [1.1.6.1]

Column#.. ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 2 Times Table [1.1.6.1]

Column#.. ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 3 Times Table [1.1.6.1]

Column#.. ->	1	2	3	4	5	6	7	8
Assign Ø								
Min Grn								
Gap, Ext								
Max 1								
Max 2								
Yel Clr								
Red Clr								
Walk								
Ped Clr								

Alt# 1 Options Table [1.1.6.2]

Column # ->	1	2	3	4	5	6	7	8
Assign Ø								
Lock Calls	ON	ON	ON	ON	ON	ON	ON	ON
Soft Recall								
Dual Enrty								
Enabl SimGap	ON	ON	ON	ON	ON	ON	ON	ON
Guar Passage								
Rest In Walk								
Cond Service								
Reservice								
Non-Act 1								
Red Rest								
Max2								
Ped Delay								
Conflicting Ø1								

Annual Schedule [4.3]	Month of Year												Day of Week							Date																													Day	Link
	J	F	M	A	M	J	J	A	S	O	N	D	S	M	T	W	T	F	S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	Plan	To
1																																																		1	
2																																																			1	
3																																																		1	
4																																																		1	
5																																																		1	
6																																																		1	
7																																																		1	
8																																																		1	
9																																																		1	
10																																																		1	
11																																																		1	
12																																																		1	
13																																																		1	
14																																																		1	
15																																																		1	
16																																																		1	
17																																																		1	
18																																																		1	
19																																																		1	
20																																																		1	
21																																																		1	
22																																																		1	
23																																																		1	
24																																																		1	

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Day Plans [4.4]

Day Plan 1

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 2

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 3

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 4

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 5

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 6

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 7

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 8

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 9

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 10

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 11

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 12

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 13

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 14

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Day Plan 15

	Hour	Min	Act		Hour	Min	Act
1	0	0	0	9	0	0	0
2	0	0	0	10	0	0	0
3	0	0	0	11	0	0	0
4	0	0	0	12	0	0	0
5	0	0	0	13	0	0	0
6	0	0	0	14	0	0	0
7	0	0	0	15	0	0	0
8	0	0	0	16	0	0	0

Action Table [4.5]

Act#	Pat#	A1	A2	A3	S1	S2	S3	S4	S5	S6	S7	S8
1	1											
2	2											
3	3											
4	4											
5	5											
6	6											
7	7											
8	8											
9	9											
10	10											
11	11											
12	12											
13	13											
14	14											
15	15											
16	16											
17	17											
18	18											
19	19											
20	20											
21	21											
22	22											
23	23											
24	24											
25												
26												
27												
28												
29												
30												
31												
32												
33												
34												
35												
36												
37												
38												
39												
40												
48												
98												
99												
100	255											

Coord Alternate Tables - Pat+ [2.6]

Pat#	ØOpt	ØTime	DetG	Call Inh	CIC	CNA1	Overlap Off 1	2	3	4	5	6	7	8	Dia	Max2
1															DFT	
2															DFT	
3															DFT	
4															DFT	
5															DFT	
6															DFT	
7															DFT	
8															DFT	
9															DFT	
10															DFT	
11															DFT	
12															DFT	
13															DFT	
14															DFT	
15															DFT	
16															DFT	
17															DFT	
18															DFT	
19															DFT	
20															DFT	
21															DFT	
22															DFT	
23															DFT	
24															DFT	
25															DFT	
26															DFT	
27															DFT	
28															DFT	
29															DFT	
30															DFT	
31															DFT	
32															DFT	
33															DFT	
34															DFT	
35															DFT	
36															DFT	
37															DFT	
38															DFT	
39															DFT	
40															DFT	
41															DFT	
42															DFT	
43															DFT	
44															DFT	
45															DFT	
46															DFT	
47															DFT	
48															DFT	

#	Event / Alarm	Ev	Alr
1	Power Up Alarm.	ON	ON
2	Stop Timing	ON	ON
3	TS1 Cabinet Door		
4	Coordination Failure	ON	ON
5	External Alarm # 1	ON	ON
6	External Alarm # 2	ON	ON
7	External Alarm # 3		
8	External Alarm # 4		
9	Closed Loop Disabled	ON	ON
10	External Alarm # 5		
11	External Alarm # 6		
12	Manual Control Enable	ON	ON
13	Coord Free Input		
14	Local Flash Input	ON	ON
15	MMU Flash		
16	CMU Flash		
17	Cycle Fault	ON	ON
18	Cycle Failure	ON	ON
19	Coordination Fault	ON	ON
20	Controller Fault	ON	ON
21	Detector SDLC Failure		
22	MMU SDLC Failure		
23	Critical SDLC Failure		
24	Reserved		
25	EEPROM CRC Fault	ON	ON
26	Detector Diagnostic Failure		
27	BIU Detector Failure	ON	ON
28	Queue detector alarm	ON	ON
29	Ped Detector Fault	ON	ON
30	Coord Diagnostic Fault		
41	TempAlert Probe Ch. A		
42	TempAlert Probe Ch. B		
47	Coord Active		
48	Preempt Active	ON	ON
49	Preempt 1 Input	ON	ON
50	Preempt 2 Input	ON	ON
51	Preempt 3 Input	ON	ON
52	Preempt 4 Input	ON	ON
53	Preempt 5 Input	ON	ON
54	Preempt 6 Input	ON	ON
55	Preempt 7 Input	ON	ON
56	Preempt 8 Input	ON	ON
57	Preempt 9 Input	ON	ON
58	Preempt 10 Input	ON	ON
61	In Transition	ON	ON
81	FIO Status Alarm		

Call Phases[1.1.5]

Ø	Phases Called By Ø			
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				

Redirect Phases[1.1.5]

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
16								

Inhibit Phases[1.1.5]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																
9																
10																
11																
12																
13																
14																
15																
16																

Alt Call & Redirect # 1 [1.1.6.3]

Col	Ø	Phases Called By Ø			
1					
2					
3					
4					
5					
6					
7					
8					

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 1 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Alt Call & Redirect # 2 [1.1.6.3]

Col	Ø	Phases Called By Ø			
1					
2					
3					
4					
5					
6					
7					
8					

	From	To	From	To	From	To	From	To
1								
2								
3								
4								
5								
6								
7								
8								

Alt Inhibit Phases # 2 [1.1.6.3]

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1																
2																
3																
4																
5																
6																
7																
8																

Auto Flash Phase/Olap Settings [1.4.2]

Yel Ø								
Yel (olaps)								

Unit Parameters [1.2.1]

Allow Skip Yellow	OFF	Max Cycle Time	
TOD Dim Enable	OFF	Cycle Fault Action	Alarm
Tone Disable	OFF		
Diamond Mode	4Ph		
Backup Time (s)	900		
Disable Init Ped	OFF		
Cycle Fault Action	Alarm		
Enable Run Timer	ON		

C1-USER IO Map [1.8.9.1 In]

I1-1	189	Unused
I1-2	189	Unused
I1-3	189	Unused
I1-4	189	Unused
I1-5	189	Unused
I1-6	189	Unused
I1-7	189	Unused
I1-8	189	Unused
I2-1	189	Unused
I2-2	189	Unused
I2-3	189	Unused
I2-4	189	Unused
I2-5	189	Unused
I2-6	189	Unused
I2-7	189	Unused
I2-8	189	Unused
I3-1	189	Unused
I3-2	189	Unused
I3-3	189	Unused
I3-4	189	Unused
I3-5	189	Unused
I3-6	189	Unused
I3-7	129	Ped Call 1
I3-8	189	Unused
I4-1	189	
I4-2		
I4-3		
I4-4		
I4-5	189	Unused
I4-6	189	Unused
I4-7	229	33xCMUStop
I4-8	228	33xFlashSns
I5-1	189	Unused
I5-2	189	Unused
I5-3	189	Unused
I5-4	189	Unused
I5-5	189	Unused
I5-6	189	Unused
I5-7	189	Unused
I5-8	189	Unused
I6-1	189	Unused
I6-2	189	Unused
I6-3	189	Unused
I6-4	189	Unused
I6-5	189	Unused
I6-6	189	Unused
I6-7	189	Unused
I6-8	189	Unused

C1-USER IO Map [1.8.9.2 Out]

O1-1	1	Ch1 Red
O1-2	49	Ch1 Green
O1-3	2	Ch2 Red
O1-4	26	Ch2 Yellow
O1-5	50	Ch2 Green
O1-6	3	Ch3 Red
O1-7	27	Ch3 Yellow
O1-8	51	Ch3 Green
O2-1	4	Ch4 Red
O2-2	52	Ch4 Green
O2-3	5	Ch5 Red
O2-4	29	Ch5 Yellow
O2-5	53	Ch5 Green
O2-6	6	Ch6 Red
O2-7	30	Ch6 Yellow
O2-8	54	Ch6 Green
O3-1	7	Ch7 Red
O3-2	55	Ch7 Green
O3-3	8	Ch8 Red
O3-4	32	Ch8 Yellow
O3-5	56	Ch8 Green
O3-6	9	Ch9 Red
O3-7	33	Ch9 Yellow
O3-8	57	Ch9 Green
O4-1	10	Ch10 Red
O4-2	58	Ch10 Green
O4-3	11	Ch11 Red
O4-4	35	Ch11 Yellow
O4-5	59	Ch11 Green
O4-6	12	Ch12 Red
O4-7	36	Ch12 Yellow
O4-8	60	Ch12 Green
O5-1	28	Ch4 Yellow
O5-2	34	Ch10 Yellow
O5-3	25	Ch1 Yellow
O5-4	31	Ch7 Yellow
O5-5	39	Ch15 Yellow
O5-6	63	Ch15 Green
O5-7	115	Not Used
O5-8	114	Watchdog
O6-1	115	Not Used
O6-2	115	Not Used
O6-3	13	Ch13 Red
O6-4	37	Ch13 Yellow
O6-5	61	Ch13 Green
O6-6	14	Ch14 Red
O6-7	38	Ch14 Yellow
O6-8	62	Ch14 Green

C1-USER IO Map [1.8.9.2 Out]

O7-1	40	Ch16 Yellow
O7-2	16	Ch16 Red
O7-3	64	Ch16 Green
O7-4	115	Not Used
O7-5	115	Not Used
O7-6	115	Not Used
O7-7	115	Not Used
O7-8	15	Ch15 Red

C11S-USER IO Map [1.8.9.1 In]

I4-1		
I4-2		
I4-3		
I4-4		
I7-1	189	Unused
I7-2	189	Unused
I7-3	189	Unused
I7-4	189	Unused
I7-5	189	Unused
I7-6	189	Unused
I7-7	189	Unused
I7-8	189	Unused
I8-1	189	Unused
I8-2	189	Unused
I8-3	189	Unused
I8-4	189	Unused
I8-5	189	Unused
I8-6	189	Unused
I8-7	189	Unused
I8-8	189	Unused

C11S-USER IO Map [1.8.9.2 Out]

O8-1	115	Not Used
O8-2	115	Not Used
O8-3	115	Not Used
O8-4	115	Not Used
O8-5	115	Not Used
O8-6	115	Not Used
O8-7	115	Not Used
O8-8	115	Not Used

IO Logic [1.8.7]

Op1	Result		O1Fcn	Inv1	Src1	IO1	Fun1	O2Fcn	Inv2	Src2	IO2	Fun2	O3Fcn	Inv3	Src3	IO3	Fun3	Dly	Sec
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0
I	0		----	-	0	I	0	----	-	0	I	0	----	-	0	I	0	DLY	0

Security Access Levels [8.2]

1	SWLOAD
2	SECURE
3	None
4	None
5	None
6	None
7	None
8	None
9	None
10	None
11	None
12	None
13	None
14	None
15	None
16	None
17	None
18	None
19	None
20	None
21	None

22	None
23	None
24	None
25	None
26	None
27	None
28	None
29	None
30	None
31	None
32	None
33	None
34	None
35	None
36	None
37	None
38	None
39	None
40	None
41	None
42	None

43	None
44	None
45	None
46	None
47	None
48	None
49	None
50	None
51	None
52	None
53	None
54	None
55	None
56	None
57	None
58	None
59	None
60	None
61	None
62	None
63	None
64	None

Com Parameters [6.1]

Station ID	2926
Group ID	0
Master ID	0
Backup Time	900

SysUp Modem [6.1]

Enable Modem	None
Idle Time	0
Dial Time	0
Tel:	
Alt:	

2070 Port Parms [6.2]

Port	Baud Rate	FCM
SP1	9600	6
SP2	9600	6
SP3	19200	6
SP4	38400	6
SP5	1200	0
SP6	1200	0
SP7	1200	0
SP8	1200	0

2070 IP 1 Addressing [6.5]

	Addressing			
Addr	192	168	0	100
Mask	255	255	255	0
Brdcst	0	0	0	0
GtWay	192	168	0	1
Port	###			

2070 IP 2 Addressing [6.5]

	Addressing			
Addr	192	168	0	100
Mask	255	255	255	0
Brdcst	0	0	0	0
GtWay	192	168	0	1
Port	5001			

2070 Port Binding Ports [6.6]

	Port	Echo	Mode
ASYNC1	SP1	None	0
ASYNC2	SP2	None	0
ASYNC3	OFF	None	0
ASYNC4	SP4	None	0
SYNC1	SP5	SYNC3	OFF
SYNC2	SP3	SYNC4	OFF

2070 Port Binding Functions [6.6]

Function	Channel	Function	Channel
TS2/CVN	ASYNC3	SYSUp	ASYNC2
CMU/MN	None	SYSDown	ASYNC1
Opticom	None	Shell	None
Loop De	None		
GPS	None		

D-26A
Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

Signal: **D-26A**
File: 13.01-9D
D/HWP: D256460
PIN:

TABLE OF SWITCH PACKS

Date: 2/2/2023

SWITCH PACK	FUNCTION	INDICATIONS	FACE	TERMINAL	WIRE COLOR CODE	FACE	TERMINAL	WIRE COLOR CODE
1	Ø1	Red	1	SP 1 R	14/15C-E-R	2	SP 1 R	14/10C-F-R
		Yellow		SP 1 Y	14/15C-E-O		SP 1 Y	14/10C-F-O
		Green		SP 1 G	14/15C-E-G		SP 1 G	14/10C-F-G
		Ground Wire		Grnd Bus	14/15C-E-W		Grnd Bus	14//10C-F-W
2	Ø2	- - - - -	3	SP 2 R	- - - - - -		SP 2 R	
		⟵		SP 2 Y	14/10C-C-O/B		SP 2 Y	
		←		SP 2 G	14/10C-C-G/B		SP 2 G	
		Ground Wire		Grnd Bus	14/10C-C-W/B		Grnd Bus	
3	Ø3	Red	7	SP 3 R	14/15C-E-R/W	8	SP 3 R	14/10C-F-R/B
		Yellow		SP 3 Y	14/15C-E-BL/W		SP 3 Y	14/10C-F-O/B
		Green		SP 3 G	14/15C-E-G/W		SP 3 G	14/10C-F-G/B
		Ground Wire		Grnd Bus	14/15C-E-B/W		Grnd Bus	14/10C-F-W/B
4.	PED-1 Ø3	HAND	23	SP 4 R	14/5C-1P-R		SP 4 R	
		- - - - - - -		SP 4 Y	- - - - - -		SP 4 Y	
		MAN		SP 4 G	14/5C-1P-G		SP 4 G	
		Ground Wire		Grnd Bus	14/5C-1P-W		Grnd Bus	
5.	Ø5	Red	3	SP 5 R	14/10C-C-R	4	SP 5 R	14/5C-A-R
		Yellow		SP 5 Y	14/10C-C-O		SP 5 Y	14/5C-A-O
		Green		SP 5 G	14/10C-C-G		SP 5 G	14/5C-A-G
		Ground Wire		Grnd Bus	14/10C-C-W		Grnd Bus	14/5C-A-W
6.	Ø6	- - - - -	1	SP 6 R	- - - - - -		SP 6 R	
		⟵		SP 6 Y	14/15C-E-O/B		SP 6 Y	
		←		SP 6 G	14/15C-E-G/B		SP 6 G	
		Ground Wire		Grnd Bus	14/15C-E-W/B		Grnd Bus	
7.				SP 7 R			SP 7 R	
				SP 7 Y			SP 7 Y	
				SP 7 G			SP 7 G	
		Ground Wire		Grnd Bus			Grnd Bus	
8				SP 8 R			SP 8 R	
				SP 8 Y			SP 8 Y	
				SP 8 G			SP 8 G	
		Ground Wire		Grnd Bus			Grnd Bus	
9				SP 9 R			SP 9 R	
				SP 9 Y			SP 9 Y	
				SP 9 G			SP 9 G	
		Ground Wire		Grnd Bus			Grnd Bus	
10				SP 10 R			SP 10 R	
				SP 10 Y			SP 10 Y	
				SP 10 G			SP 10 G	
		Ground Wire		Grnd Bus			Grnd Bus	
11.				SP 11 R			SP 11 R	
				SP 11 Y			SP 11 Y	
				SP 11 G			SP 11 G	
		Ground Wire		Grnd Bus			Grnd Bus	
12.				SP 12 R			SP 12 R	
				SP 12 Y			SP 12 Y	
				SP 12 G			SP 12 G	
		Ground Wire		Grnd Bus			Grnd Bus	
13	Ø3	Red	5	SP 13 R	14/5C-D-R	6	SP 13 R	14/5C-B-R
		Yellow		SP 13 Y	14/5C-D-O		SP 13 Y	14/5C-B-O
		Green		SP 13 G	14/5C-D-G		SP 13 G	14/5C-B-G
		Ground Wire		Grnd Bus	14/5C-D-W		Grnd Bus	14/5C-B-W
14.				SP 14 R			SP 14 R	
				SP 14 Y			SP 14 Y	
				SP 14 G			SP 14 G	
		Ground Wire		Grnd Bus			Grnd Bus	
15				SP 15 R			SP 15 R	
				SP 15 Y			SP 15 Y	
				SP 15 G			SP 15 G	
		Ground Wire		Grnd Bus			Grnd Bus	
16				SP 16 R			SP 16 R	
				SP 16 Y			SP 16 Y	
				SP 16 G			SP 16 G	
		Ground Wire		Grnd Bus			Grnd Bus	

D-26A
Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

Signal: **D-26A**
File: 13.01-9D
D/HWP: D256460
PIN:
Date: 2/2/2023

TRAFFIC SIGNAL MONITOR PROGRAMMING

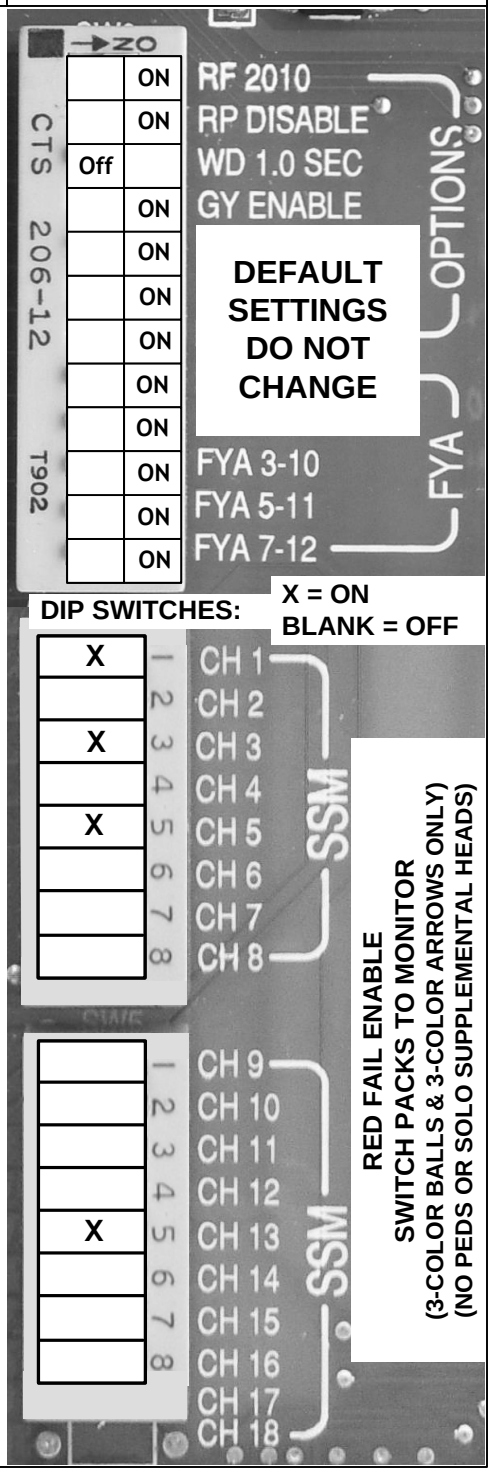
CONFLICT MONITOR DIODES TO BE CUT
(SWITCH PACKS TO RUN TOGETHER)

1-5	2-5	3-4
1-6	2-6	3-13
4-13		

YELLOW DISABLE: WIRE JUMPERS TO BE INSTALLED FOR PEDS

1	
2	
3	
4	X
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	

210NYR MONITOR BOARD
(SWITCH PACKS TO MONITOR)



CURRENT MONITOR BOARD (IF USED)

CURRENT MONITOR DIODES TO BE CUT (SWITCH PACKS TO *NOT* MONITOR)
2,4,6-12,14-18

Notes:

D-26A
Signal #

MODEL 2070 SIGNAL OPERATION
PROGRAMMABLE FEATURES
SIGNAL OPERATION SPECIFICATION

Signal: **D-26A**
File: 13.01-9D
D/HWP: D256460
PIN:

Date: 2/2/2023

TABLE OF INPUT WIRING

SDLC CHANNEL	FUNCTION	DET. ZONE NO.	DET. TYPE	DET. AN OVER	REMARKS
41	**Ø1**	33	GRIDSMART		PRESENCE
42	**Ø2**	34	GRIDSMART		PRESENCE
43	**Ø3**	35	GRIDSMART		PRESENCE
44					
45	**Ø5**	37	GRIDSMART		PRESENCE
46	**Ø6**	38	GRIDSMART		PRESENCE
47					
48					
49	**Ø3 (EB-RT)**	49	GRIDSMART		COUNT
50	**Ø3 (EB-STRAIGHT)**	50	GRIDSMART		COUNT
51	**Ø3 (EB-LT)**	51	GRIDSMART		COUNT
52	**Ø5 (SB-RT)**	52	GRIDSMART		COUNT
53	**Ø5 (SB-STRAIGHT)**	53	GRIDSMART		COUNT
54	**Ø2 (SB-LT)**	54	GRIDSMART		COUNT
55	**Ø3 (WB-RT)**	55	GRIDSMART		COUNT
56	**Ø3 (WB-STRAIGHT)**	56	GRIDSMART		COUNT
57	**Ø3 (WB-LT)**	57	GRIDSMART		COUNT
58	**Ø1 (NB-RT)**	58	GRIDSMART		COUNT
59	**Ø1 (NB-STRAIGHT)**	59	GRIDSMART		COUNT
60	**Ø6 (NB-LT)**	60	GRIDSMART		COUNT
25A, 25B	**PED-A Ø3**	23	BUTTON		PEDESTRIAN

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Appendix E | American Community Survey Data

COMMUTING CHARACTERISTICS BY SEX

United States® Census Bureau

Note: This is a modified view of the original table produced by the U.S. Census Bureau. This download or printed version may have missing information from the original table.

	ZCTA5 12508					
	Total		Male		Female	
Label	Estimate	Margin of Error	Estimate	Margin of Er	Estimate	Margin of Error
Workers 16 years and over	9,162	±595	4,636	±403	4,526	±372
MEANS OF TRANSPORTATION TO WORK						
Car, truck, or van	75.5%	±3.4	78.5%	±4.4	72.5%	±5.1
Public transportation (excluding taxicab)	10.1%	±2.2	8.8%	±3.1	11.4%	±3.5
Walked	3.3%	±1.5	2.7%	±1.6	4.0%	±2.1
Bicycle	0.4%	±0.6	0.8%	±1.2	0.0%	±0.8
Taxicab, motorcycle, or other means	0.4%	±0.5	0.4%	±0.6	0.5%	±0.9
Worked from home	10.3%	±2.3	9.0%	±2.9	11.6%	±3.1
PLACE OF WORK						
Workers 16 years and over who did not work from home	8,222	±566	4,221	±392	4,001	±345
VEHICLES AVAILABLE						
Workers 16 years and over in households	9,129	±591	4,612	±395	4,517	±372
No vehicle available	4.9%	±2.2	5.3%	±3.1	4.4%	±2.5
1 vehicle available	25.6%	±3.9	24.1%	±5.4	27.2%	±4.4
2 vehicles available	40.3%	±5.6	42.6%	±6.5	38.0%	±6.3
3 or more vehicles available	29.2%	±5.0	28.0%	±5.2	30.4%	±5.8
PERCENT ALLOCATED						

Table Notes

COMMUTING CHARACTERISTICS BY SEX

Survey/Program: American Community Survey
Year: 2021
Estimates: 5-Year
Table ID: S0801

Although the American Community Survey (ACS) produces population, demographic and housing unit estimates, it is the Census Bureau's Population Estimates Program that produces and disseminates the official estimates of the population for the nation, states, counties, cities, and towns and estimates of housing units for states and counties.

Supporting documentation on code lists, subject definitions, data accuracy, and statistical testing can be found on the American Community Survey website in the Technical Documentation section.

Sample size and data quality measures (including coverage rates, allocation rates, and response rates) can be found on the American Community Survey website in the Methodology section.

Source: U.S. Census Bureau, 2017-2021 American Community Survey 5-Year Estimates

Data are based on a sample and are subject to sampling variability. The degree of uncertainty for an estimate arising from sampling variability is represented through the use of a margin of error. The value shown here is the 90 percent margin of error. The margin of error can be interpreted roughly as providing a 90 percent probability that the interval defined by the estimate minus the margin of error and the estimate plus the margin of error (the lower and upper confidence bounds) contains the true value. In addition to sampling variability, the ACS estimates are subject to nonsampling error (for a discussion of nonsampling variability, see ACS Technical Documentation). The effect of nonsampling error is not represented in these tables.

The 12 selected states are Connecticut, Maine, Massachusetts, Michigan, Minnesota, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont, and Wisconsin.

Workers include members of the Armed Forces and civilians who were at work last week.

When information is missing or inconsistent, the Census Bureau logically assigns an acceptable value using the response to a related question or questions. If a logical assignment is not possible, data are filled using a statistical process called allocation, which uses a similar individual or household to provide a donor value. The "Allocated" section is the number of respondents who received an allocated value for a particular subject.

Several means of transportation to work categories were updated in 2019. For more information, see: Change to Means of Transportation.

The 2017-2021 American Community Survey (ACS) data generally reflect the March 2020 Office of Management and Budget (OMB) delineations of metropolitan and micropolitan statistical areas. In certain instances, the names, codes, and boundaries of the principal cities shown in ACS tables may differ from the OMB delineation lists due to differences in the effective dates of the geographic entities.

Estimates of urban and rural populations, housing units, and characteristics reflect boundaries of urban areas defined based on Census 2010 data. As a result, data for urban and rural areas from the ACS do not necessarily reflect the results of ongoing urbanization.

Explanation of Symbols:

-

The estimate could not be computed because there were an insufficient number of sample observations. For a ratio of medians estimate, one or both of the median estimates falls in the lowest interval or highest interval of an open-ended distribution. For a 5-year median estimate, the margin of error associated with a median was larger than the median itself.

N

The estimate or margin of error cannot be displayed because there were an insufficient number of sample cases in the selected geographic area.

(X)

The estimate or margin of error is not applicable or not available.

median-

The median falls in the lowest interval of an open-ended distribution (for example "2,500-")

median+

The median falls in the highest interval of an open-ended distribution (for example "250,000+").

**

The margin of error could not be computed because there were an insufficient number of sample observations.

***

The margin of error could not be computed because the median falls in the lowest interval or highest interval of an open-ended distribution.

*****

A margin of error is not appropriate because the corresponding estimate is controlled to an independent population or housing estimate. Effectively, the corresponding estimate has no sampling erro and the margin of error may be treated as zero.

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Appendix E | DCTC Beekman Street Complete Streets Analysis

City of Beacon: Beekman Street Complete Streets Analysis

A. Introduction

The Beacon waterfront is home to several key destinations, including the Metro-North train station, Long Dock Park, the Beacon-Newburgh Ferry dock, the Beacon Farmers Market, and Riverfront Park, as well as a local trail system. However, the waterfront is separated from Main St by a half-mile with a substantial hill, and there is not a direct walking or bicycling route connecting them.

To address this, the City of Beacon requested that the DCTC evaluate ways to improve walking and bicycling access and safety between Main Street and the Beacon train station. The City specifically requested an evaluation of Beekman Street between Route 9D and Red Flynn Drive/Long Dock Park Road. DCTC also evaluated West Main Street and other potential connections.

Improving connections between the train station and Main Street is especially critical given the amount of current and proposed development in the area, including planned transit-oriented development (TOD) around the train station. Our recommendations include new and improved sidewalks, shorter and more visible crosswalks, dedicated street space for bicycles, bicycle parking, and consistent wayfinding signage. Using these tools, the City can make the Beekman Street area safer, more accessible, and more comfortable for everyone, regardless of how they choose to travel.

B. Existing Conditions

We evaluated existing conditions on Beekman St, West Main St, and the train station area in early May, 2017. This included taking measurements and photographs, and observing people using the streets. We also collected background data from the DCTC's traffic count database and other sources. Traffic count reports are provided in the Appendix; see also the Existing Conditions map and Existing Street Sections graphics at the end of this report.

Beekman Street

- Annual Average Daily Traffic volume (AADT): about 5,500 (evenly split northbound/southbound)
    - Peaks: 6-7 am southbound (downhill); 6-7 pm northbound (uphill)
    - Heavy vehicles: about 2.5% of traffic
- Speed limit: 30 mph; 85% speed: 36 mph uphill, 37 mph downhill; average speed: 27 mph uphill, 31 mph downhill
- Average slope: 3.5% (ranges from 1.5% to 4.6%)
- Pavement width: 35-36 feet between Route 9D and River St; 33 feet between River St and Railroad Dr; 38 feet between Railroad Dr and Red Flynn Dr.
    - Travel lanes: typically 12-15 feet adjacent to parking; 12 feet in opposite direction
- On-street parking: train-station permit/metered parking on one side (east between 9D and River St; west south of River St; none south of Railroad Dr)
    - Marked spaces, 8 feet wide x 21 feet long
- Sidewalks: on both sides between 9D and West Main; on east side only between West Main St and Ferry St; on west side only south of Ferry St.
    - Typically 5 feet wide; with a 3-foot brick buffer between 9D and a point 300 feet south of West Main St; 5 feet with no buffer south of that point.

- Utilities:
    - Light poles on the west side, typically about 10 feet behind the curb (some are closer)
    - Utility poles on the east side, 15-20 feet behind the curb (from 9D to north of West Main St)
    - Guard rail on the west side; behind sidewalk from 9D to 350 feet south; about 10 feet behind the curb from 200 feet south of West Main St to 130 feet north of River St.

West Main Street

- Annual Average Daily Traffic volume (AADT): about 1,600 (84% westbound)
    - Peaks: 6-7 am westbound (downhill); 3-4 pm eastbound (uphill)
    - Heavy vehicles: about 5.5% of traffic
- Speed limit: 25 mph; 85% speed: 34 mph uphill, 36 mph downhill; average speed: 24 mph uphill, 29 mph downhill
- Average slope: 6.6% (ranges from about 4% to more than 9%)
- Pavement width: about 34 feet (24 feet near the train station)
    - Travel lanes: about 10 feet in areas with parking; wider in areas with no parking
- On-street parking: unmarked, but allowed on both sides in middle segment (from about 330 feet south of Beekman St to the MTA property line south of the auto repair business).
    - Some restrictions for driveways/intersections
    - 4 hour limit on weekdays
- Sidewalks: on north side only
    - 8 feet wide with no buffer between Beekman St and Bank St; 5 feet with a 3-foot grass buffer between Bank St and the MTA property line; 4-6 feet with no buffer in the train station area.
- Utilities:
    - Utility/light poles on the south side, about 3 feet behind the curb (Beekman St to Bank St)
    - Utility/light poles on the north side, in sidewalk buffer (River St to train station area)

C. Observations

As part of our fieldwork in May 2017, we observed the condition of existing facilities, people walking, and evidence of 'desire lines' (worn paths in the grass, which reflect people's preference to take the shortest path to their destination). Key observations are listed below.

Infrastructure

1. Sidewalks:

- Sidewalks are typically in good condition, except for some lifting due to tree roots (in particular, north of Ferry St, and north of River St)
- One obstruction was noted – a hydrant in the middle of the Beekman St sidewalk north of River St. In two places, the sidewalk was widened to provide (minimal) clearance around a light pole.

2. Buffers:

- The brick buffer on Beekman St is broken in areas (e.g., on the west side near Route 9D and the east side between High St and West Main St).
- Many sidewalks lack a buffer (most of Beekman St south of West Main St; West Main St north of Bank St).

3. Crosswalks:

- Most of the crosswalks outside of MTA property are standard crosswalks (two parallel lines), rather than high-visibility ladder crosswalks, such as the crosswalk below the MTA stairs.

- Several crosswalks are unnecessarily long, due to their placement.
- Crosswalks in the MTA area are red stamped concrete (faux brick) with two parallel white lines.
- A crosswalk is missing across the upper portion of Municipal Plaza to connect to the path to 9D/Main St.
- A standard crosswalk was marked on Beekman St north of Ferry St after our field observations; however, it lacks a curb ramp on the west side. An In-Street Pedestrian Crossing sign was later placed near the crosswalk.
- Two crosswalks lack ramps: the east side of the Beekman St crosswalk at River St, and the west side of the Beekman St crosswalk at Ferry St.
- Many crosswalk ramps lack detectable warning surfaces.

4. Warning signs

- There are four signs in the City Police parking lot warning pedestrians to look for emergency vehicles.
- The warning signs at the uncontrolled West Main St crossing are non-standard and hard to read, while the uncontrolled crosswalk at River St lacks pedestrian warning signs. The recently-installed In-Street Pedestrian Crossing sign at Ferry St is placed outside of the crosswalk (rather than in the center), and may be prone to damage.
- There is a standard pedestrian crossing warning sign (MUTCD W11-2) at the train station exit, with flashing beacons. However, it was unclear how the beacons were activated; no buttons were present, but it was unclear whether it could detect pedestrians passively.

5. Wayfinding signs

- There are at least four different types and styles of wayfinding signs. Only one has a map, and it is hard to read.

6. Amenities

- There are very few streetscape amenities outside of the train station area. There is no pedestrian-scale lighting, trashcans or bicycle parking racks along Beekman St or West Main St. The only benches we observed were in front of a building on the north side of West Main St. There are trees behind the sidewalk on portions of Beekman St, but no street trees in the sidewalk buffer area.

7. Bicycle Facilities

- There are no bicycle facilities (bike paths or lanes) and no bicycle-related lane markings or signs in the study area. There is limited short-term bicycle parking on the east side of the station near the entrance (wave racks with about 12 spaces), as well as one small rack on the west side, near the ferry dock (about 5 spaces). There are no bike lockers or other long-term bike parking.

Behavior

8. Walking: People walking from Main St to the train station generally cut through the City Police parking lot (using 3 flights of stairs), cut through the grass to Beekman St, cross Beekman St near High St, then cut through the grass to West Main St, and walk down West Main St to the station. This route is reversed for people walking from the station to Main St.

We observed a desire-line trail from the end of Ferry St to Route 9D. We expect that this reflects people who live south of Main St walking on 9D to Ferry St (via the trail), and then to the station via Railroad Dr.

On West Main St, we observed people walking in the street rather than on the sidewalk, possibly because the sidewalk on the western end of the street is relatively narrow.

9. ***Parking and Walking:*** People who park in the MTA spaces on northern Beekman St tend to access the station via West Main St, as described above. Those who park in the MTA spaces on Beekman St south of West Main St tend to walk to the station via Beekman St, the stairs just north of Ferry St, and Railroad Dr. We observed a desire line in the grass on the west side of Beekman St near the MTA Police building, indicating that some people take the stairs and walk through the grass to their car (if they parked near the MTA building), or walk to River St and the sidewalk on the east side of Beekman St, using the crosswalk at River St.

10. ***Bicycling*****:** The only bicyclists we observed were riding south on Beekman St. They appeared to be on a recreational ride, based on their attire. According to City staff, some bicyclists access the train station on the river side, using Beekman St and Red Flynn Dr. Based on discussions with some residents, local bicyclists often access the station via West Main St and use the overpass to access the platform (this is also evidenced by the number of bikes parked along the fence by the overpass). Others ride to the main entrance (non-river side), and park there, or bring their bike on the train. For the return, some bicyclists use West Main St, either riding a short distance against traffic, using the sidewalk, or walking their bike until the street becomes two-way. Others prefer the less steep hill on Beekman St, and return via Railroad Dr and Beekman St. This can involve navigating heavy traffic leaving the station, particularly at the end of the workday. One resident noted that he rides on the sidewalk from the station to Beekman St to avoid conflicts with vehicle traffic and "crazy" drivers. He also noted that riding uphill on Beekman St is "a little dicey" and more room for bicyclists would be helpful.

D. Route Options

Walking

Since most people prefer to take the shortest path when walking, we measured various route options between the train station area and Main St. A table of each route is included in the Appendix; see also the Walking Route Options map.

For comparison purposes, we assumed that people walk between the central train station building and the southeast corner of Main St and Route 9D. For an accessible route, using sidewalks but no stairs or shortcuts through the grass, walking via Beekman St and walking via West Main St are the same distance (both 0.63 mile). However, the Beekman St route is not fully accessible, as the crossing just north of Ferry St lacks a curb ramp (and is uncontrolled). If using stairs and shortcuts, walking via Beekman St is just 50 feet shorter than West Main St (0.51 mile vs 0.52 mile).

The planned path between Beekman St and Route 9D will include stairs, so it is not an accessible option. Using the MTA stairs and planned path/stairs would be about 225 feet longer than the standard Beekman St 'shortcuts' route, which cuts through the Municipal Plaza (0.55 mile vs 0.51 mile). Similarly for West Main St, using the planned path would be longer than the West Main St 'shortcuts' route, which cuts through the Municipal Plaza (0.59 mile vs 0.52 mile). However, this planned path (or the planned path and stairs at the end of Ferry St) would be a good option for destinations south of Main St.

If people are able to start or end at the train station overpass, walking via West Main St is by far the shortest route—about 0.40 mile using stairs and shortcuts, and 0.46 mile using the planned path. However, this option is inherently inaccessible because it relies on using the train station overpass.

Based on this analysis and our observations, **we recommend focusing pedestrian improvements on Beekman St,** and considering potential improvements on West Main St. In particular, **improving accessibility** will enable people of all ages and abilities to travel safely between Main St and the train station area. Specific recommendations are listed in Part F below.

Bicycling

Bicyclists are typically willing to take a slightly longer route if it feels safer and more comfortable. The "Level of Traffic Stress" (LTS) is the current state of the practice measurement of bicycle comfort. The LTS is based on a street's traffic volume and traffic speed, as well as the type of bicycle facility, if one exists. Levels of traffic stress range from 1 to 4. Lower-stress streets have lower speeds, volumes, and fewer lanes, or have separated bike paths or protected bike lanes/cycle tracks. LTS 1 represents streets that are suitable for all ages and abilities; LTS 2 represents streets that most adults can ride on comfortably; LTS 3 represents streets that experienced and confident riders can feel comfortable on; LTS 4 represents streets where only the most fearless riders would feel comfortable. In their current condition, based on the traffic data above, Beekman St would be classified as LTS 3 or 4, while West Main St would be classified as LTS 1 or 2.[1]

> The LTS methodology explains, "Stress is lower if average daily traffic (ADT) is 3,000 or less **and** no centerline is marked. (Most quiet, local streets have both of these characteristics.) On such streets, cars tend to drive in the middle of the street, moving to the side when meeting an oncoming vehicle. It's far less stressful sharing a road with cars where the cars are actively sharing the road with each other in the same way."

Based on existing conditions, West Main St would be the preferred bicycle connection between Main St and the train station. However, a route is only as good as its weakest link—a high stress segment makes the entire route more stressful. Currently, bicyclists need to ride on a short portion of 9D (or cut through the Municipal Plaza) and the northern portion of Beekman St to access West Main St. In addition, Railroad Dr between West Main St and the train station entrance is one-way westbound/southbound. Finally, West Main St has a substantial grade, making the uphill direction difficult for many potential bicyclists. For the West Main St route to be more functional, Railroad Dr should be redesigned to allow eastbound bicycle access, at least from the overpass to West Main St. Longer-term, Railroad Dr could be redesigned to allow two-way bicycle access between West Main St and the main station entrance. This may be feasible in coordination with future redevelopment of the train station area. In the interim, bicyclists may choose to use West Main St to access the station, and return via Beekman St.

We understand that many bicyclists cross Route 9D from Main St and ride through the Municipal Plaza to Beekman St. However, this is not recommended due to potential conflicts with drivers entering and exiting parking spaces, as well as the uncontrolled turn across Beekman St (heading south). Any redesign of the Municipal Plaza property should incorporate a safe bicycle access route, such as a path separate from parking areas.

Based on NYSDOT data, traffic volumes and speeds on Route 9D south of Main St are slightly higher than on Beekman St (approximately 6,500 AADT vs 5,500, and 85% speeds of 37-39 mph, vs 36-37 mph), while volumes and speeds on Route 9D north of Main St are significantly higher (approximately 23,000 AADT and 85% speeds of 40 mph). However, the data for the northern section is based on a count taken just south of I-84, so it is likely that the volume between Main St and Beekman St is substantially lower than NYSDOT's estimate.

[1] See http://www.northeastern.edu/peter.furth/research/level-of-traffic-stress/

Based on the evaluation above, we recommend focusing bicycle infrastructure improvements on Beekman St, with connections to the train station via Railroad Dr and Red Flynn Dr. Longer-term, we recommend pursuing two-way bicycle access along Railroad Dr and a bike path connecting Main St to Beekman St.

E. Bicycle Facility Options

We evaluated the following bicycle facilities, based on recent best practice guidance.[2] We assumed no changes to the existing roadway widths and no removal of on-street parking. A summary spreadsheet is included in the Appendix.

- ***Shared Street/Bicycle Boulevard***: Per guidance from the National Association of City Transportation Officials (NACTO), shared streets work best when target vehicle speeds[3] are below 10 mph. However, bicycle boulevards can work on streets with target speeds up to 25 mph and average daily traffic (ADT) up to 1,500, if there are fewer than 50 vehicles per hour in the peak hour and peak direction. Bicycle Boulevards include sharrows (shared lane-use markings) to highlight bicyclists' right to ride in the travel lane, wayfinding signs, and traffic calming treatments.

- ***Bicycle Lanes/Buffered Bike Lanes***: Bike lanes provide dedicated on-street space for bicyclists. Per NACTO, bike lanes work best if target speeds do not exceed 25 mph and ADT does not exceed 6,000. Bike lanes should be at least 5 feet wide. Buffered bike lanes include a striped buffer of at least 18 inches between the bike lane and the adjacent travel lane and/or parking lane.

- **Protected Bike Lanes/Cycle Track**: NACTO recommends protected bike lanes (also called cycle tracks) for streets with target speeds above 26 mph or ADT above 6,000. Protected bike lanes are physically separated from the adjacent travel lane by parking, planters, bollards, or a raised curb. Protected bike lanes can be one-way or two-way (on one side of the street). One-way cycle tracks should be at least 5 feet wide with a 3 foot separation from the travel or parking lane, while two-way cycle tracks should be at least 8 feet wide (12 feet is preferred) with a 3 foot separation from the travel or parking lane.

- ***Bike Path/Shared-Use Path***: Separated paths, either for bicycles only or shared with pedestrians, work best where there are few intersections or driveways-- some guidance suggests fewer than five per mile. Per NYSDOT guidance, paths should be at least 10 feet wide (12 feet or wider is preferred) and set back at least 5 feet from an adjacent roadway.

A description of our analysis of bicycle facility options for each street follows.

Beekman St: Based on NACTO guidance and current traffic volumes and speeds, the recommended treatment for Beekman St would be a protected bike lane. However, given the road width, this would be feasible in one direction only. There is insufficient width for a two-way protected bike lane (or for two separate bike lanes) unless the on-street parking was removed.

Therefore, we recommend a **bike lane (protected where feasible) in the uphill/northbound direction, and sharrows in the downhill/southbound direction.** A bike lane gives bicyclists dedicated space uphill, when they are

[2] See the NACTO Urban Bikeway Design Guide at https://nacto.org/publication/urban-bikeway-design-guide/ and NACTO's Designing for All Ages & Abilities guidance at https://nacto.org/publication/urban-bikeway-design-guide/designing-ages-abilities-new/.

[3] NACTO defines target speed as the posted or 85th percentile speed, but encourages use of the 95th percentile speed.

traveling significantly slower than motor vehicles, while sharrows encourage them to 'take the lane' if needed when they are traveling downhill, at speeds more consistent with motor vehicles. Sharrows should be placed in the center of the 'effective lane' (see NYSDOT's Shared Lane Marking Policy in the Appendix).

From River St to 9D (northbound), there is room for a protected bike lane. It would be located adjacent to the curb, with a striped buffer between it and the parking lane. If the travel lanes were reduced to 10 feet, there would be room for a five-foot bike lane and three-foot buffer adjacent to the 8 foot parking lane. These widths are consistent with NACTO's guidance (they also recommend a 7-foot bike lane on uphill sections to allow bicyclists to pass each other, but that is infeasible given existing conditions and likely unnecessary). Sharrows would be marked in the southbound travel lane, adjacent to the curb.

At intersections, parking should be limited to improve visibility and allow bicycle access between the bike lane and the side street. Parkers would also need to be educated to look for bicyclists before crossing to the sidewalk. That said, conflicts are less likely here than on a commercial street with on-street parking, given the low turnover of the spaces and the relatively slow speed of bicyclists riding uphill. At the 9D intersection approach, a 'mixing zone' (combined bike lane/turn lane) may be needed.[4] This would require NYSDOT approval.

From Ferry St to River St (northbound), there is room for a conventional five-foot bike lane if travel lanes are narrowed to ten feet (as above). The bike lane would be placed between the curb and the travel lane. Sharrows would be marked in the southbound direction, adjacent to the 8 foot parking lane.

From Red Flynn Dr to Ferry St (northbound), there is room for a buffered bike lane. The buffer would separate the five-foot bike lane from the travel lane. The buffer should be two to three feet, depending on the width of the travel lanes. Sharrows would be marked in the southbound lane/right turn lane to access riverside destinations.

We recommend ten-foot travel lanes to help calm traffic and provide enough bike lane and buffer space for bicyclist comfort. However, 10.5-foot lanes could be used if the City feels wider lanes are needed to accommodate buses, trucks, or other vehicles. In that case, the parking lane would be reduced to 7 feet. Note that this would fall short of NACTO's recommended combined 11 foot width for the parking lane and buffer for parking-protected bike lanes. A narrower parking lane could also be less comfortable for southbound bicyclists riding next to the parking lane between River St and Railroad Ave, though these spaces have low turnover.

These treatments assume that there will continue to be on-street parking on one side of Beekman St. If the on-street parking were removed, protected bike lanes could be provided in both directions between Ferry St and 9D, with up to three-foot buffers (bollards, curbing, or planters could be used). A two-way protected bike lane would also be possible, but would require careful design treatments at intersections.

West Main St: Based on NACTO guidance and current traffic volumes and speeds, the preferred treatment would be a bike lane, ideally protected, but possibly conventional or buffered. However, there is insufficient width for bike lanes unless on-street parking were removed. As a basic improvement, we recommend **sharrows and signage** on West Main St, connecting to the station entrance in the downhill direction, and at least from the MTA property line to Beekman St in the uphill direction. Longer-term, Railroad Dr could be reconfigured to allow two-way bicycle access between the main station entrance and West Main St (such as with a bicycle path).

[4] See https://nacto.org/publication/urban-bikeway-design-guide/intersection-treatments/cycle-track-intersection-approach/ for more details.

Route 9D: Based on NACTO guidance and current traffic volumes and speeds, the preferred treatment would be protected bike lanes or a separate path. However, there is insufficient width for bike lanes. A path on the west side of Route 9D may be feasible, either as part of a redesign of the Municipal Plaza, or wrapping around the Municipal Plaza parking to the north, to connect Main St to Beekman St.

If a path were to be constructed, we suggest considering stop signs on Beekman St to control traffic for bicyclists exiting from the connecting path onto southbound Beekman St. At a minimum, sight distance at that location would need to be evaluated to ensure that exiting bicyclists and approaching drivers have a clear view, and bicycle crossing warning signs installed.

As a basic, interim improvement, **sharrows and signage** could be marked on Route 9D in both directions between Main St and Beekman St. This would require NYSDOT approval. In addition, NYSDOT should improve the traffic signals at the 9D/Main St and 9D/Beekman St intersections to improve detection and timing for bicyclists.

Railroad Dr & Red Flynn Dr: We did not evaluate these streets in detail, but based on estimated roadway widths, it appears that both could accommodate a bike lane on one side of the street if travel lanes were narrowed. To provide consistency with the other recommendations, we suggest a **bike lane in the uphill direction (away from the station), and sharrows in the downhill direction (towards the station)**.

A summary of the recommendations are listed in Part F below and shown in the Pedestrian Recommendations map, Bicycle Recommendations map, and Proposed Street Sections at the end of this report.

F. Recommendations

Specific recommendations are outlined below. Priority items are *starred and **bolded**.

A. Pedestrian Access and Safety

Improve access through the Municipal Plaza:

The City should improve pedestrian access and safety through the Municipal Plaza, while also promoting alternate routes, such as the planned path to 9D. As noted above, the 'shortcut' routes through the Municipal Plaza are the most direct, and people will likely continue to use them. However, they are not accessible, and walking through the police parking lot presents potential conflicts with vehicles entering and exiting parking spaces.

- Mark a walking path through the parking area to increase drivers' awareness of pedestrians.
- Mark a high-visibility ladder crosswalk across Municipal Plaza between the stairs at the top and the path to Route 9D.
- Pave/formalize the desire line in the grass at the southwest corner of Beekman St and Municipal Plaza. This appears to include a small piece of Central Hudson property, but the paved path could be aligned to include only City property.

- ***Explore a re-design of the property to provide accessible alternatives to the stairs,** such as the concept shown in the Appendix to the City's 2007 Comprehensive Plan[5].

Complete missing connections:

- ***Install a sidewalk on the west side of Beekman St between West Main St and the MTA stairs** (approximately 1,150 feet). This sidewalk should be at least 5 feet wide, and include a 5-foot buffer with street trees where feasible. Based on our observations, at least two light poles (in front of the MTA building, and north of River St), and two hydrants (just south of West Main St, and halfway to River St) would need to be relocated.

- Longer-term, pursue pedestrian access through the MTA Police building parcel, as envisioned in the Comprehensive Plan. The police building is located directly between the train station and Beekman St. Access through this parcel would substantially shorten the walking route between the train station and Beekman St.

Improve Infrastructure:

- Repair sidewalk lifts and cracks through shaving or replacement. Focus in particular on lifts on Beekman St between River St and Ferry St/Railroad Dr.

- Replace the brick buffer on Beekman St with a more durable and stable material, such as stamped concrete, or with grass.

- Remove obstructions or widen the sidewalk around obstructions. Maintain a minimum 3-foot clearance (wider if possible). Specifically:
  - Widen the sidewalk around the hydrant on the east side of Beekman St just north of River St.
  - Check clearance around the pole on the east side of Beekman St just south of River St, and widen if possible.

- On West Main St, consider the following sidewalk improvements as long-term options in coordination with future land use changes (we understand that on-street parking will likely be needed on both sides of the street to serve existing and future development):
  - Widen the 5-foot sidewalk west of Bank St to 8 feet, consistent with the segment east of Bank St, to accommodate increased pedestrian activity.
  - If feasible, install a consistent buffer between the sidewalk and curb for the entire length of the street.

***Make Safer Crosswalks**:*

- ***Stripe all crosswalks with high-visibility white ladder markings** (such as across Municipal Plaza at Beekman St). Avoid using red crosswalks, as they are less visible than white at night.

- ***Install consistent signage for all uncontrolled crosswalks,** such as advance Pedestrian Crossing and Pedestrian Crossing warning signs (MUTCD sign W11-2; see Section 2C.50). In-Street Pedestrian Crossing

[5] See the conceptual plan entitled 'Connecting Beacon's Main Street with the Hudson River and Railroad Station.'

signs (MUTCD sign R1-6; see Section 2B.12) may be used but often become damaged. Encourage MTA/Metro-North to install consistent signs at uncontrolled crosswalks within their property as well.

- ***Shorten crossings as much as possible to maximize safety and convenience.** Specifically:
  - Crossing Beekman St at Route 9D – Reduce the curb radii and/or re-locate the crosswalk to the west to reduce the crossing length. Reconfigure the ramps to direct people into the crosswalk rather than the center of the intersection.
  - Crossing Beekman St at West Main St – Redesign the crosswalk to be straight instead of diagonal, reducing the crossing distance. This would involve replacing the ramp on the east side.
    - Consider an all-way stop at this intersection to improve safety at the crosswalk (and access from West Main St to Beekman St).
  - Crossing Beekman St at River St – Reduce the curb radius on the west side to shorten the crossing. Add a curb ramp on the east side.
  - Crossing Beekman St at Ferry St/MTA stairs – Upgrade the recently marked crosswalk to a high-visibility ladder crosswalk, install a curb extension on the west side to make pedestrians visible between parked cars and to help pedestrians see oncoming traffic, and construct a curb ramp on the west side of the crosswalk.
  - Crossing the MTA parking lot at Railroad Dr – Work with Metro-North/MTA to realign the diagonal crosswalk to connect directly to the stairs.
  - Install detectable warnings on all curb ramps to alert vision-impaired pedestrians of the transition to the street.

- Mark high-visibility crosswalks on side streets to increase driver awareness of pedestrians. Recommended locations include:
  - Across West Main St at Beekman St (in coordination with the recommended sidewalk on the west side of Beekman St).
  - Across River St at Beekman St (in coordination with the recommended sidewalk on the west side of Beekman St).
  - Across Bank St at West Main St.

  The City asked about using raised crosswalks to slow traffic and increase yielding to pedestrians at uncontrolled marked crossings (such as Beekman St at West Main St, River St, and Ferry St/MTA stairs). However, raised crosswalks are typically used at mid-block crossings with very high pedestrian volumes or above-average pedestrian crash rates, and are usually not appropriate on bus routes or segments with steep grades.[6]

Provide Amenities and Wayfinding Signage:

- ***Develop a consistent format for pedestrian wayfinding signs throughout the study area.** Signs should clearly show destinations and recommended walking routes. In particular, provide wayfinding signage to direct people from the train station to Main Street via West Main St, and vice versa (existing signs at the train station direct people via Railroad Dr). New public walking paths/routes should also be promoted with wayfinding signage.

[6] See http://www.pedbikesafe.org/PEDSAFE/countermeasures_detail.cfm?CM_NUM=7.

- Develop one preferred accessible route, and clearly sign it to assist those with mobility limitations. Until the missing curb ramp is installed on Beekman St north of Ferry St and/or other accessibility improvements are made, the only fully accessible route is via West Main St. However, it has a significant grade.

- Install amenities along Beekman St, West Main St, and other routes as needed, including consistent street trees and pedestrian-scale lighting, as well as trash/recycling cans and benches at key locations.

- Snow plowing: We did not observe conditions during the winter, but understand from some residents that sidewalk plowing could be improved. On Beekman St, snow could be stored in the buffer area (where one exists) or behind the sidewalk. On West Main St, the existing and proposed buffer areas could be used for snow storage. Particular attention should be focused on plowing at curb ramps and crosswalks to maintain accessibility.

B. Bicycle Access and Safety

Beekman St:

- ***In the northbound (uphill) direction, install a buffered bike lane from Red Flynn Dr to Ferry St, a conventional bike lane from Ferry St to River St, and a parking-protected bike lane from River St to 9D.** Reduce the travel lanes to 10 feet to allow room for five-foot bike lanes and three-foot buffers (where feasible).

- Mark sharrows in the southbound (downhill) lane.

West Main St:

- Mark sharrows in both directions between Beekman St and the MTA property line.

Municipal Plaza:

- ***Construct a bicycle path connecting Main St and Beekman St, outside of the parking area.**

Route 9D (these improvements would need to be approved by and coordinated with NYSDOT):

- Mark sharrows between Main St and Beekman St.

- Upgrade the traffic signal detectors at the 9D/Main St and 9D/Beekman St intersections to consistently detect bicycles. This may entail adjusting the detectors' sensitivity, or replacing the loops with a more bicycle-friendly design (such as diagonal quadrupole loops) or technology (such as video detection).[7] If loop detectors are used, paint bicycle symbols and install signs on each approach to show bicyclists where to position themselves to be detected.[8] Note that NYSDOT has not yet approved video detection and would have to review any other detection technology prior to installation.

[7] See Walk Bike Dutchess, Chapter 3, part L for more detail on signal timing for bicyclists.
[8] See MUTCD Sections 9C.05 and 9B.13 and Figures 9C-7 and 9B-2 (sign R10-22).

- Adjust the signal timing at the 9D/Main St and 9D/Beekman St intersections to allow sufficient minimum green time, a longer green extension time for bicycles (if possible) and more all-red clearance time if needed.

Railroad Dr:

- Work with MTA to mark sharrows in the downhill direction from Beekman St to the train station, and to provide a bike lane in the uphill direction to Beekman St.

- Work with MTA to mark sharrows in the southbound direction from West Main St to the train station.

- Longer-term, work with MTA to reconfigure Railroad Dr to allow two-way bicycle access between the main station entrance and West Main St.

Red Flynn Dr:

- Mark sharrows in the downhill direction from Beekman St to the train station entrance (river side), and provide a bike lane in the uphill direction from the station to Beekman St.

Provide Bike Route Signage:

- Install bike route guide signs to direct bicyclists to preferred routes between the train station and Main St.[9]

Improve Bicycle Parking: [10]

- ***Work with MTA to provide secure long-term bike parking,** such as a bicycle enclosure or a Bike Station, in the station area.[11] We recommend long-term parking for at least 70-100 bicycles.

- ***Work with MTA to provide significantly more short-term bike parking**, such as covered bike racks, at both entrances to the station and by the overpass.[12] We recommend short-term spaces for at least 30-50 bicycles.

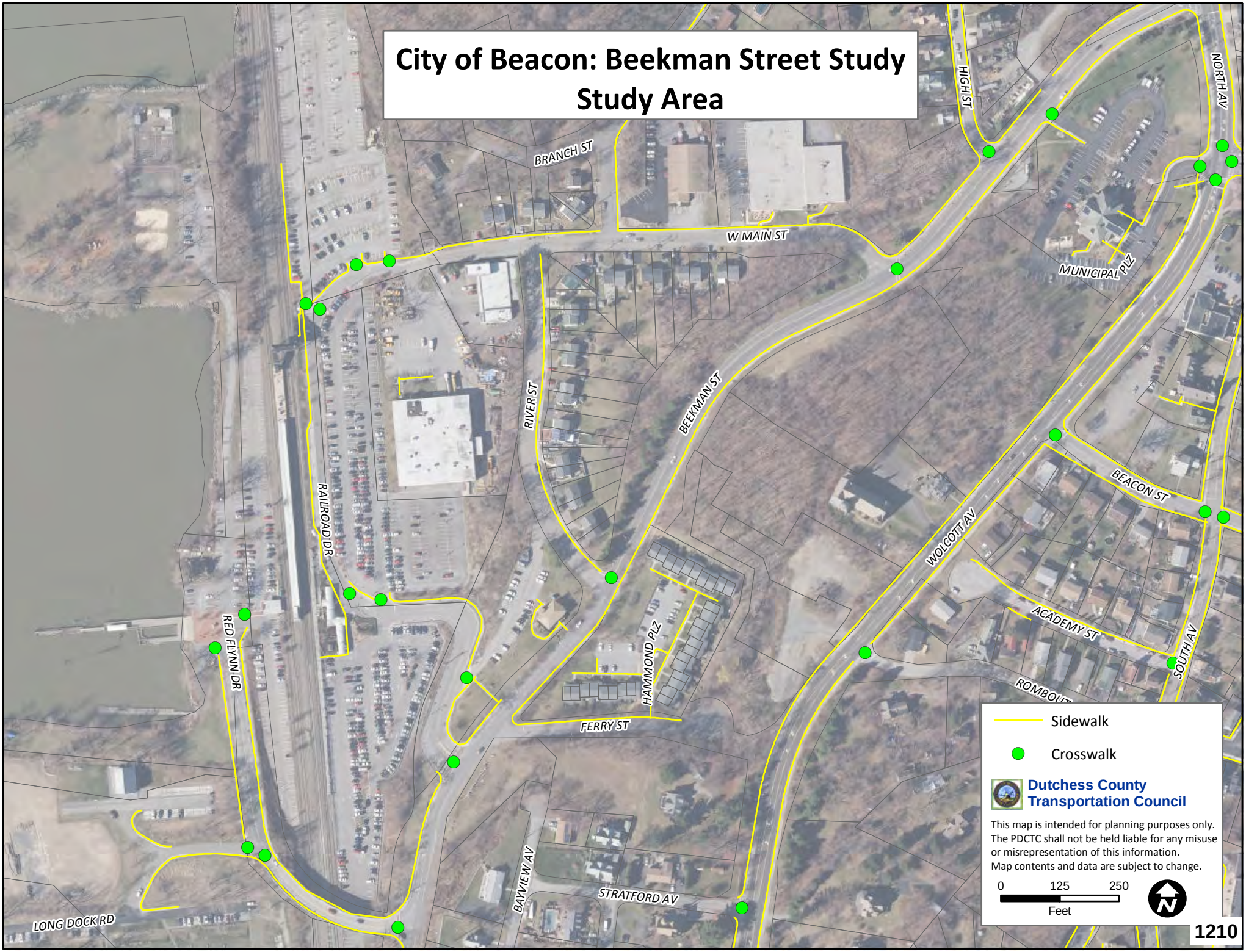
- Work with other property owners, including the City, to provide short-term bike parking at key destinations (e.g. the farmers market, parks, and commercial buildings), as well as long-term bike parking for employees, commuters, and visitors.

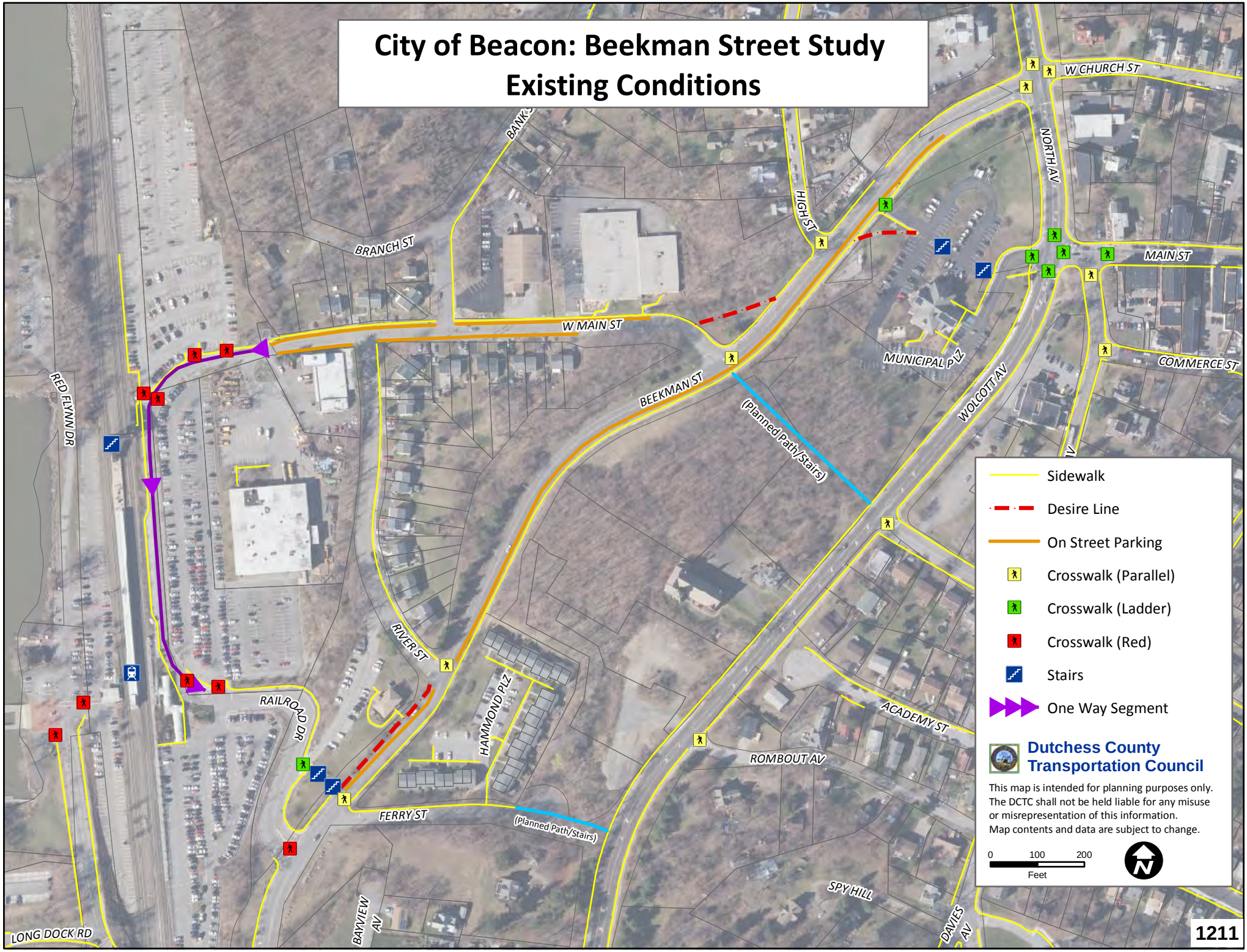
[9] See Bike Route Guide signs in MUTCD Section 9B.20, Figures 9B-4 and 9B-6

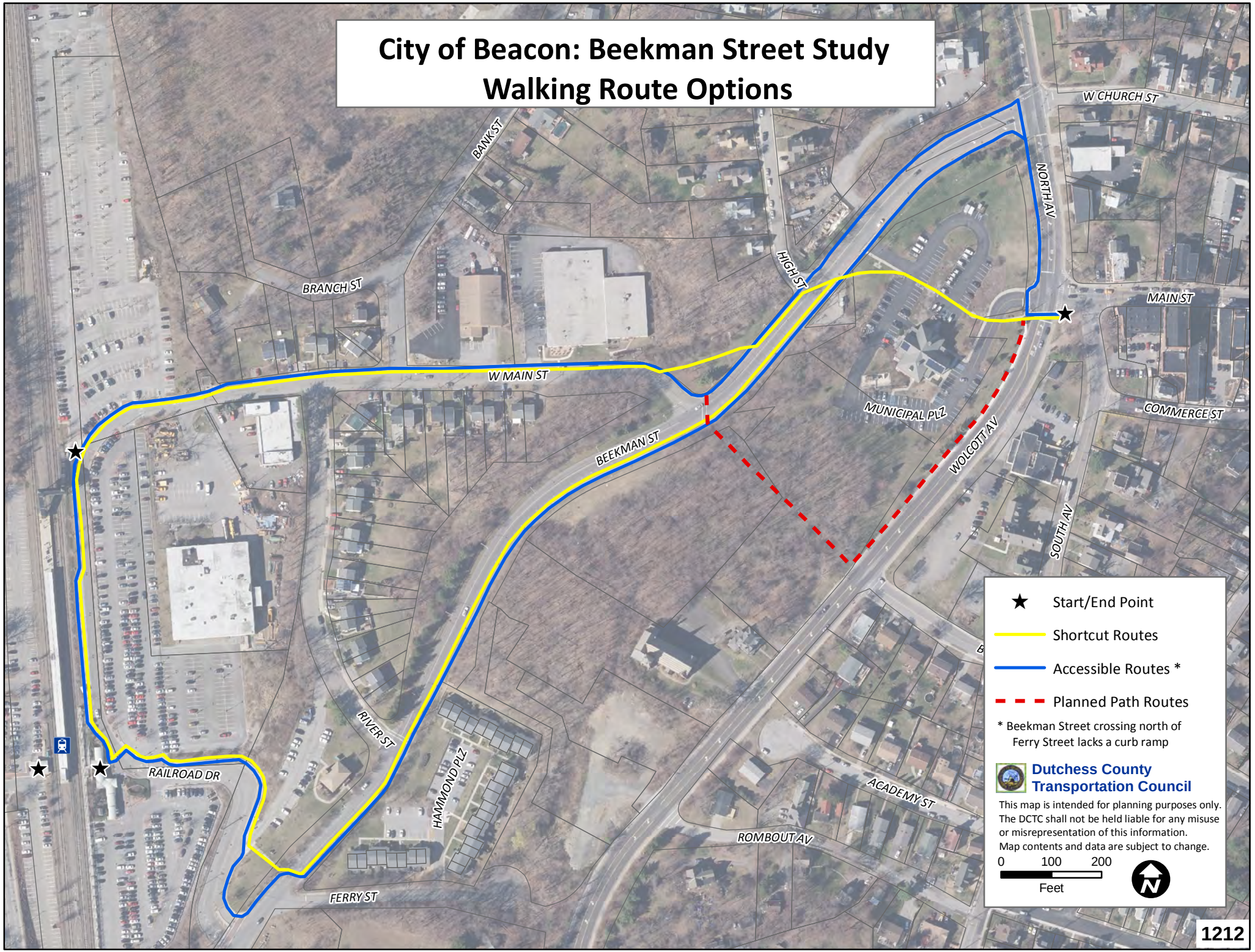
[10] Bicycle parking guidance is available online at http://www.co.dutchess.ny.us/CountyGov/Departments/TransportationCouncil/17205.htm.

[11] For images of Bicycle Enclosures, see Google images. For Bike Stations, see http://bikehub.com/caltrain-bike-station/ and http://home.bikestation.com/.

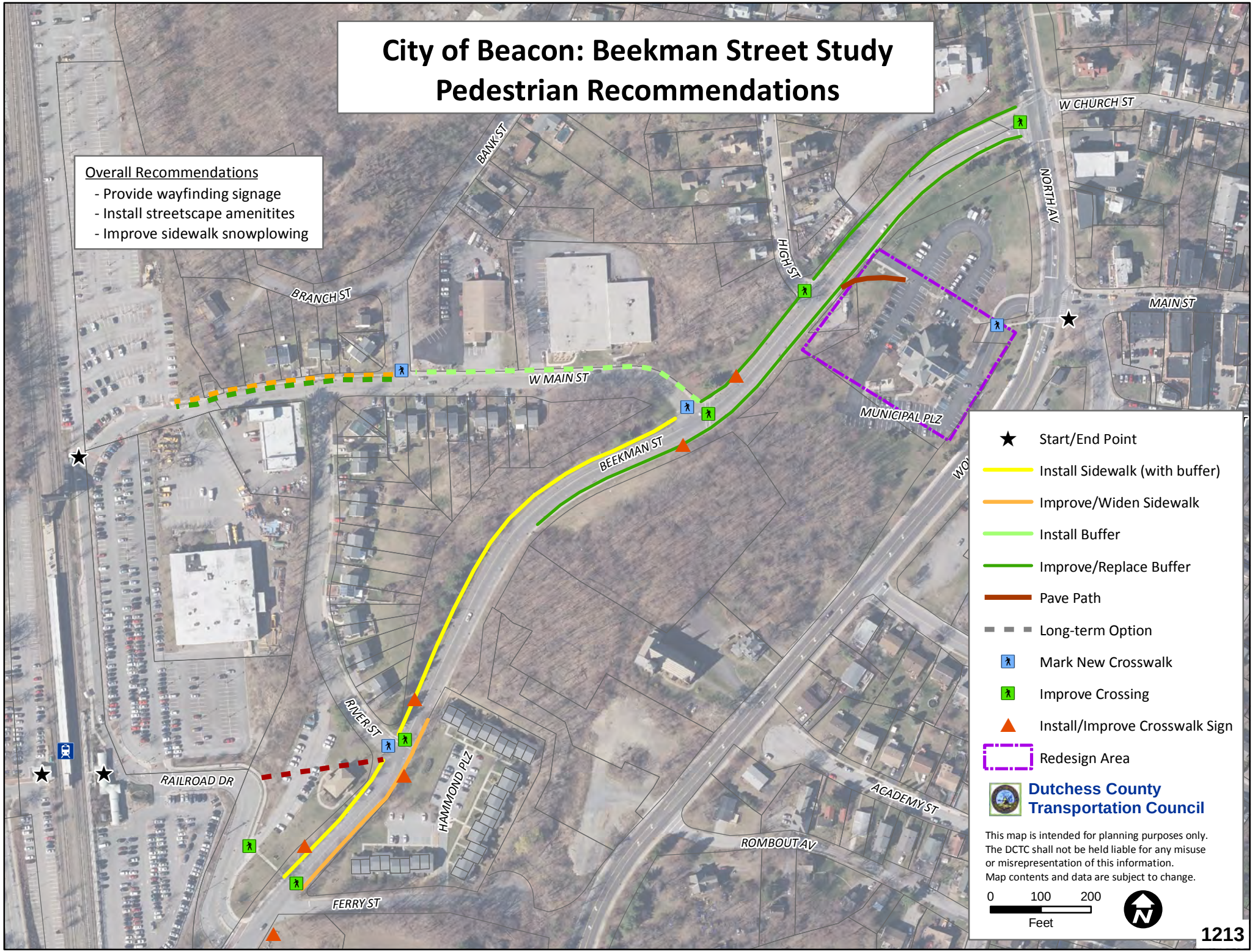
[12] See the County's online Bicycle Parking Finder for a current inventory of bike parking: https://geoaccess.co.dutchess.ny.us/bicycleparking/


City of Beacon: Beekman Street Study
Study Area
BRANCH ST
W MAIN ST
HIGH ST
NORTH AV
MUNICIPAL PLZ
RIVER ST
BEEKMAN ST
RAILROAD DR
BEACON ST
WOLCOTT AV
ACADEMY ST
SOUTH AV
RED FLYNN DR
HAMMOND PLZ
FERRY ST
BAYVIEW AV
STRATFORD AV
LONG DOCK RD
Sidewalk
Crosswalk
Dutchess County
Transportation Council
This map is intended for planning purposes only.
The PDCTC shall not be held liable for any misuse
or misrepresentation of this information.
Map contents and data are subject to change.
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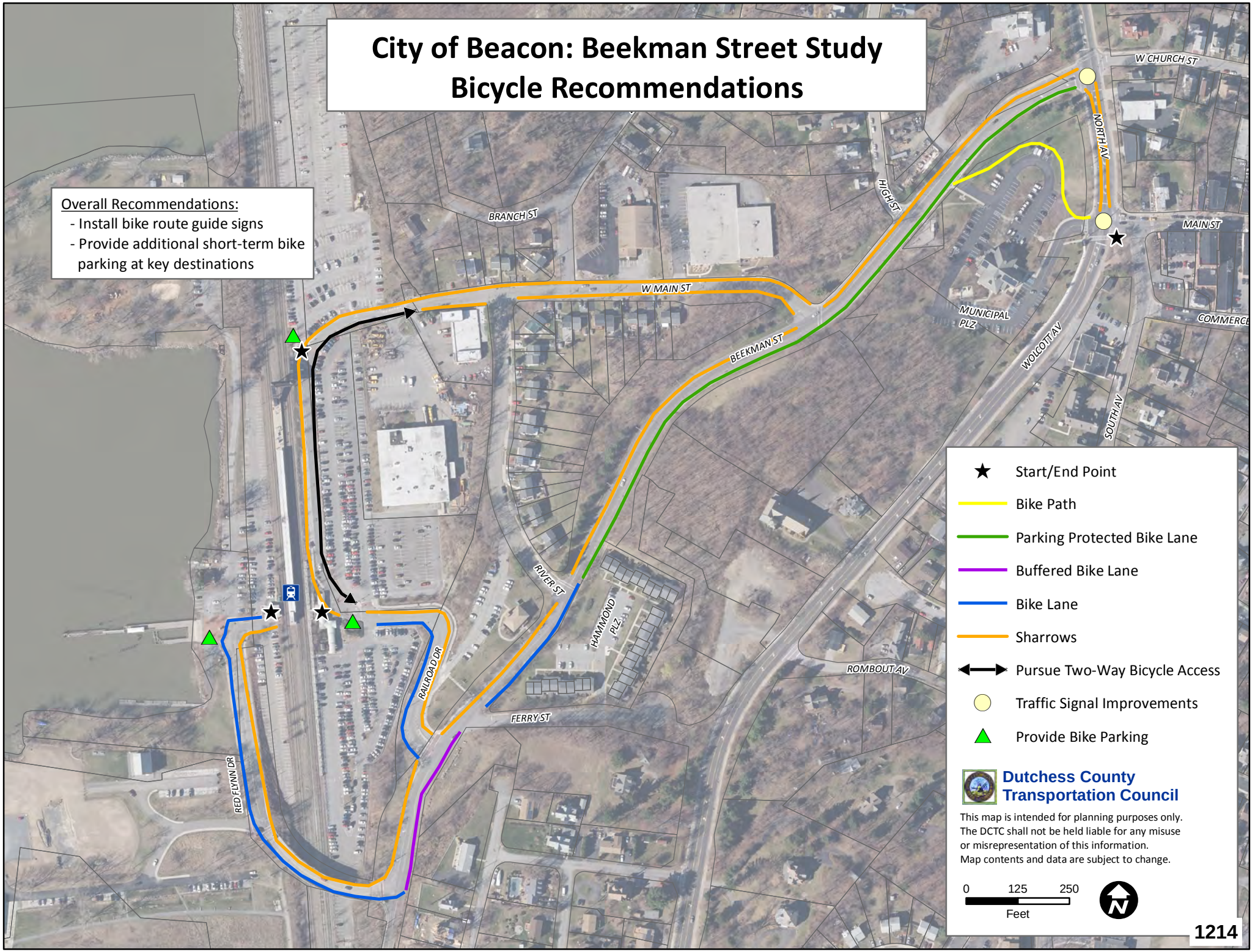

City of Beacon: Beekman Street Study
Existing Conditions
W CHURCH ST
NORTH AV
HIGH ST
BANK
BRANCH ST
W MAIN ST
MAIN ST
COMMERCE ST
MUNICIPAL PLZ
WOLCOTT AV
BEEKMAN ST
(Planned Path/Stairs)
RED FLYNN DR
RIVER ST
RAILROAD DR
HAMMOND PLZ
ACADEMY ST
ROMBOUT AV
FERRY ST
(Planned Path/Stairs)
SPY HILL
DAVIES AV
BAYVIEW AV
LONG DOCK RD
Sidewalk
Desire Line
On Street Parking
Crosswalk (Parallel)
Crosswalk (Ladder)
Crosswalk (Red)
Stairs
One Way Segment
Dutchess County Transportation Council
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City of Beacon: Beekman Street Study
Walking Route Options
BANK ST
BRANCH ST
HIGH ST
W CHURCH ST
NORTH AV
MAIN ST
W MAIN ST
MUNICIPAL PLZ
COMMERCE ST
WOLCOTT AV
BEEKMAN ST
SOUTH AV
RIVER ST
HAMMOND PLZ
RAILROAD DR
ACADEMY ST
ROMBOUT AV
FERRY ST
Start/End Point
Shortcut Routes
Accessible Routes *
Planned Path Routes
* Beekman Street crossing north of Ferry Street lacks a curb ramp
Dutchess County Transportation Council
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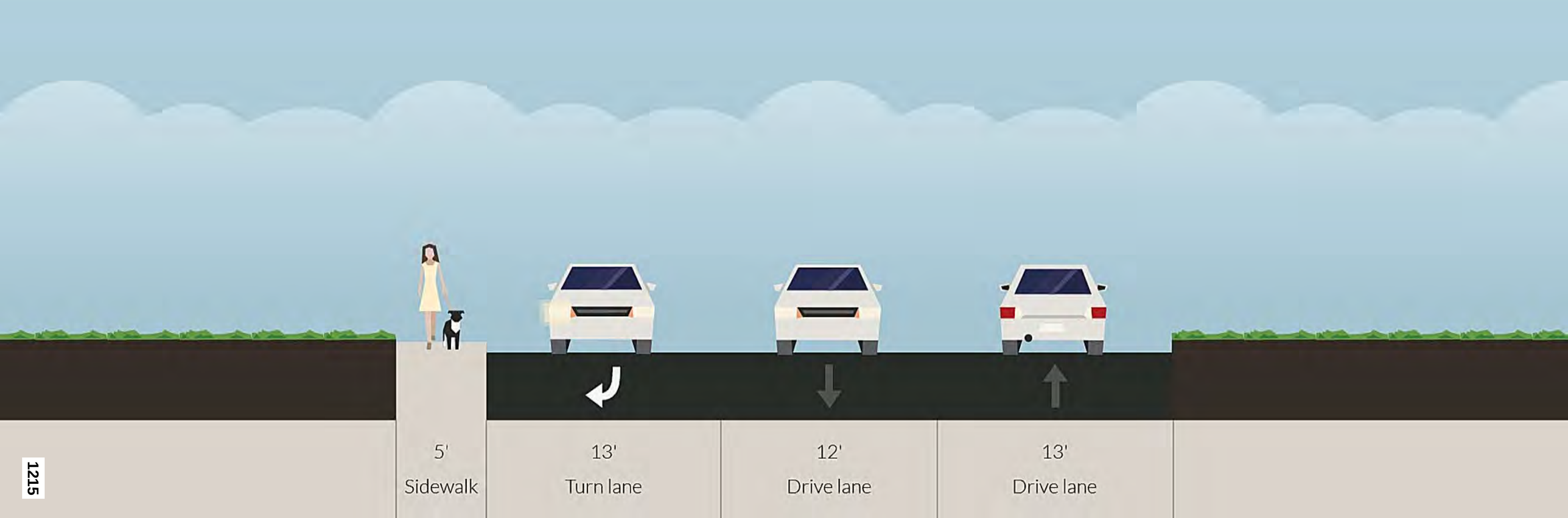
City of Beacon: Beekman Street Study
Pedestrian Recommendations



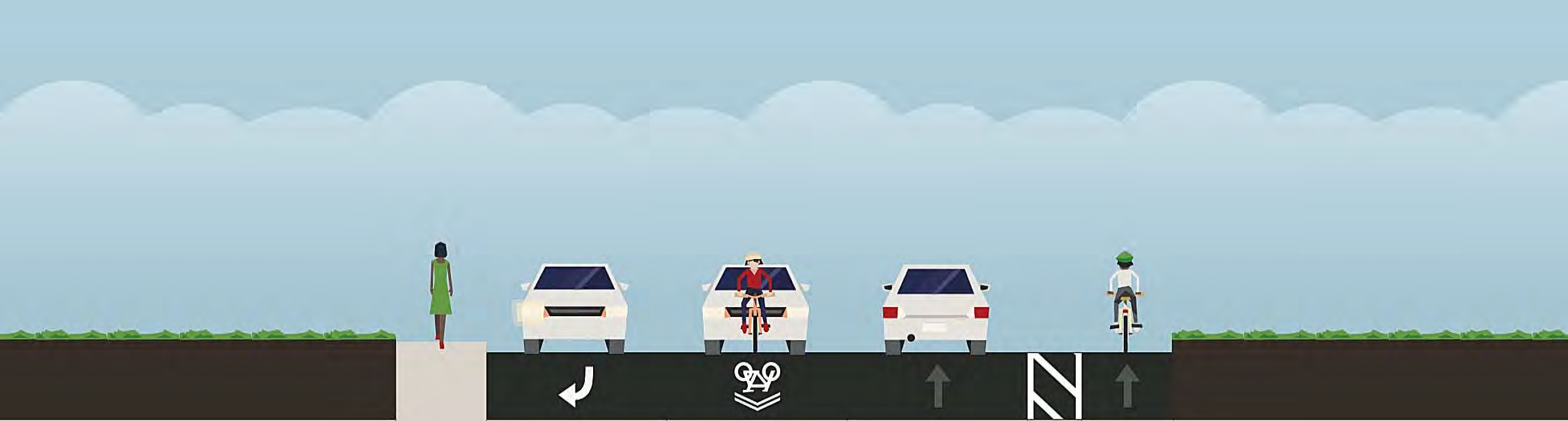
City of Beacon: Beekman Street Study
Bicycle Recommendations



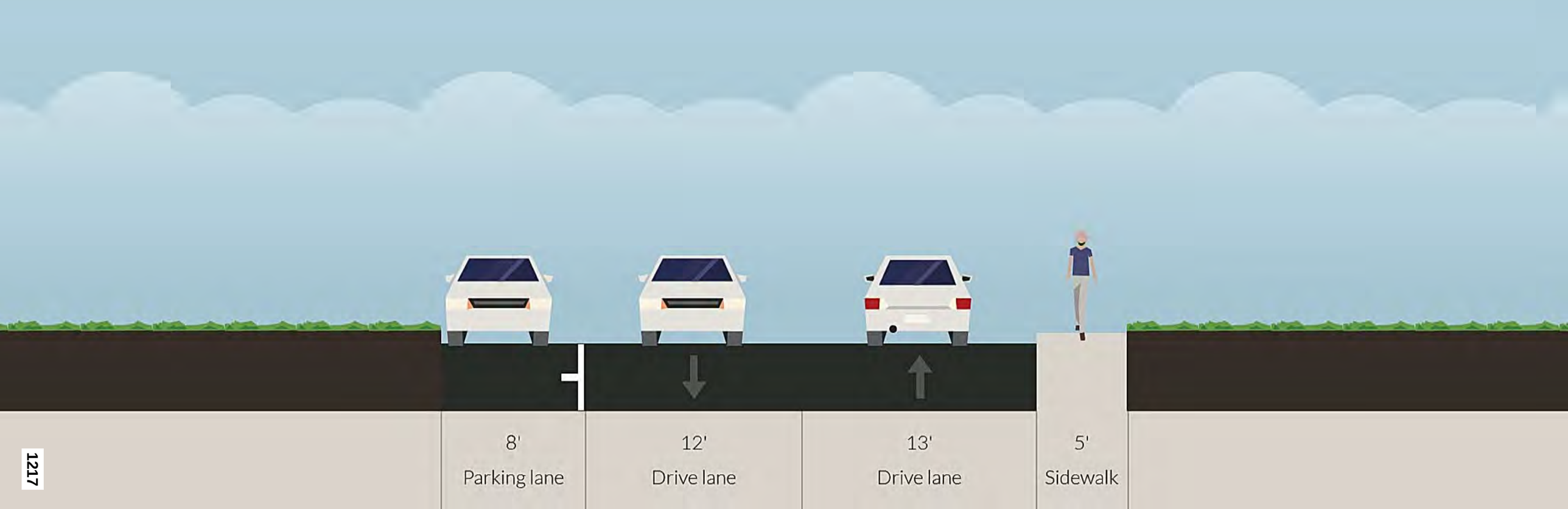
Beekman St: Red Flynn–Ferry (existing)



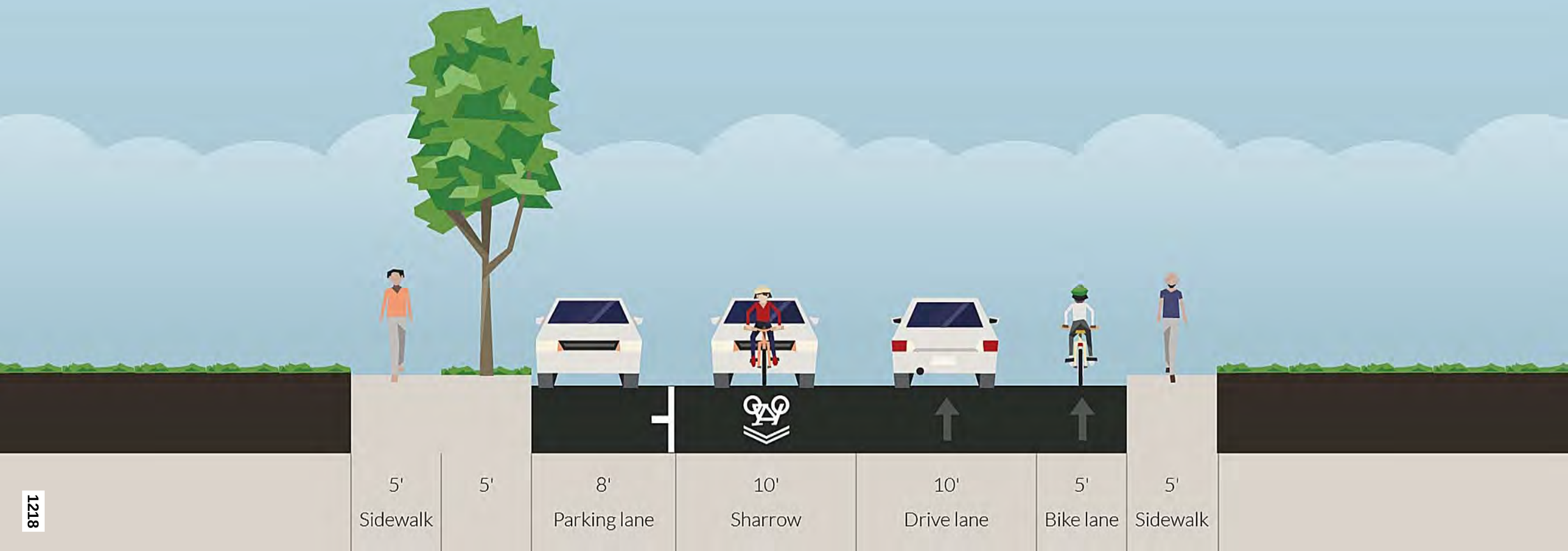
Beekman St: Red Flynn–Ferry (proposed)



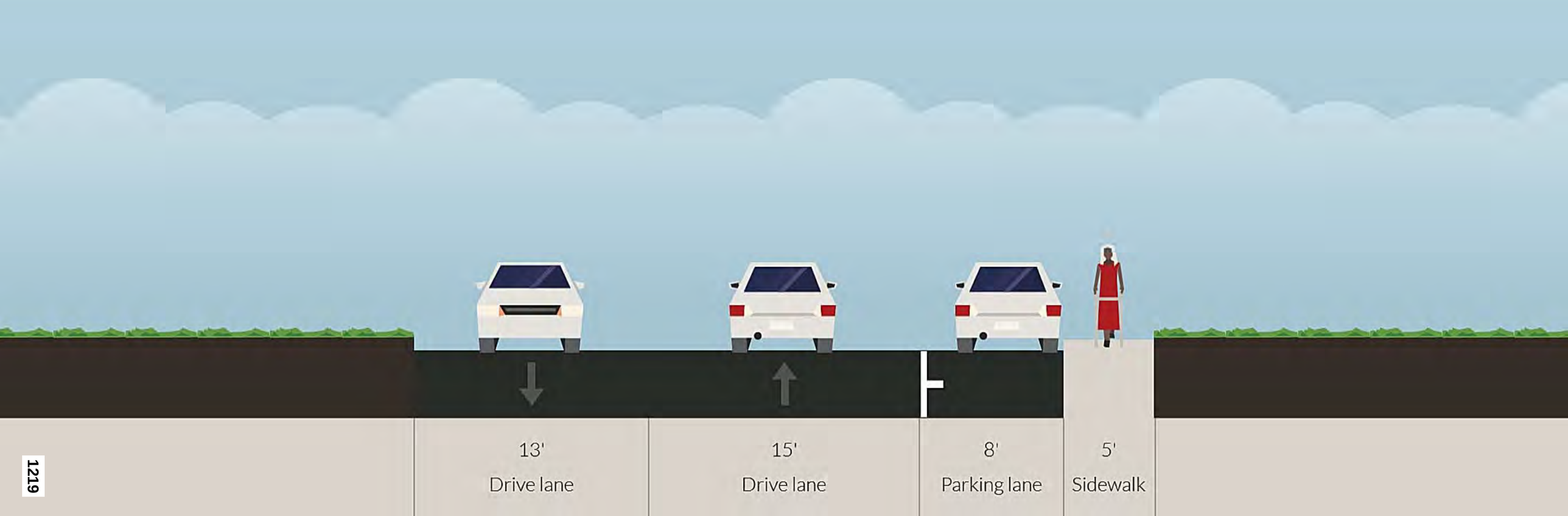
Beekman St: Ferry – River (existing)



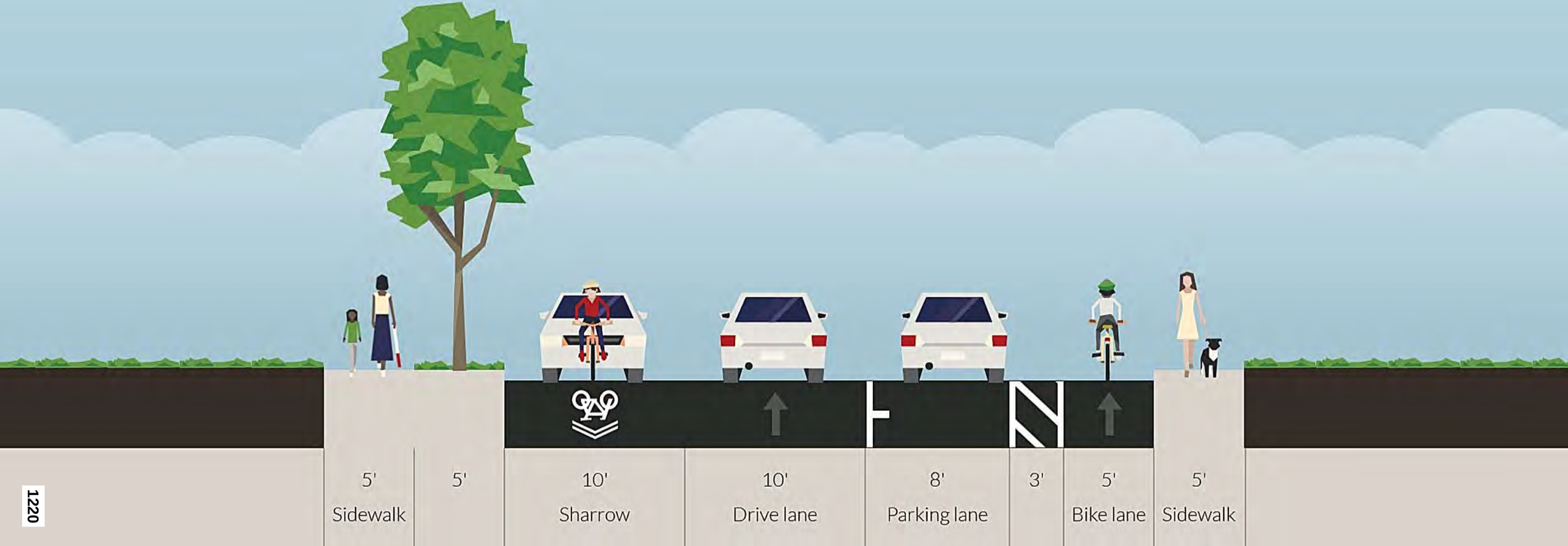
Beekman St: Ferry – River (proposed)



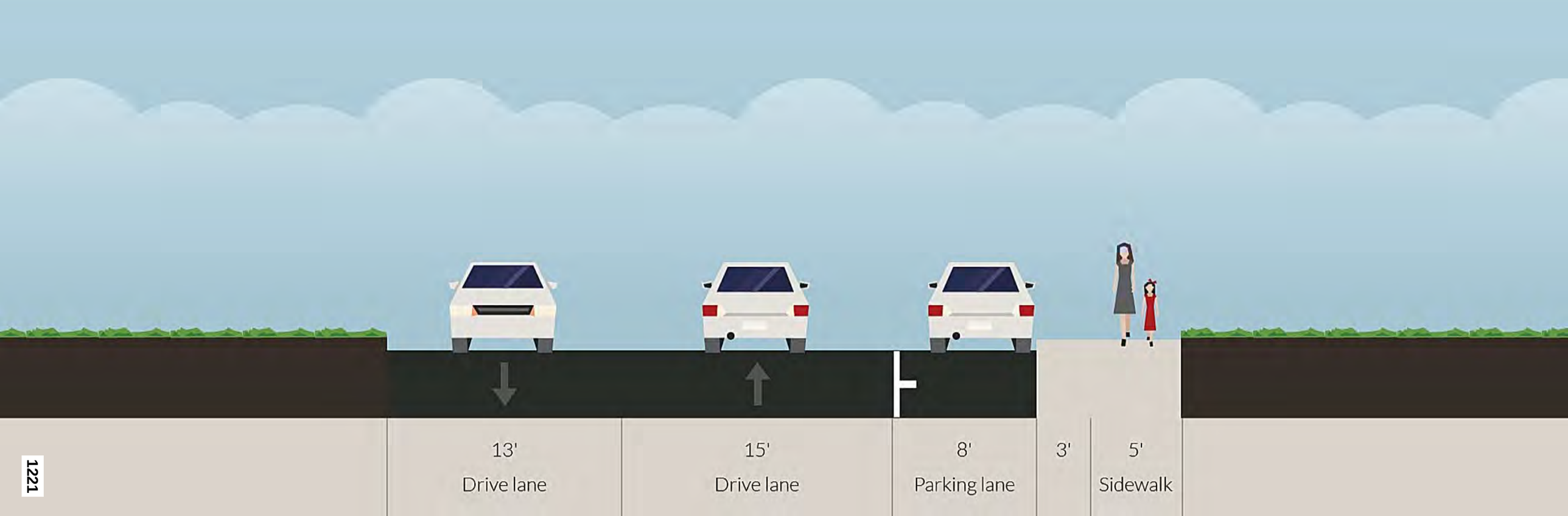
Beekman St: River–W Main (existing)



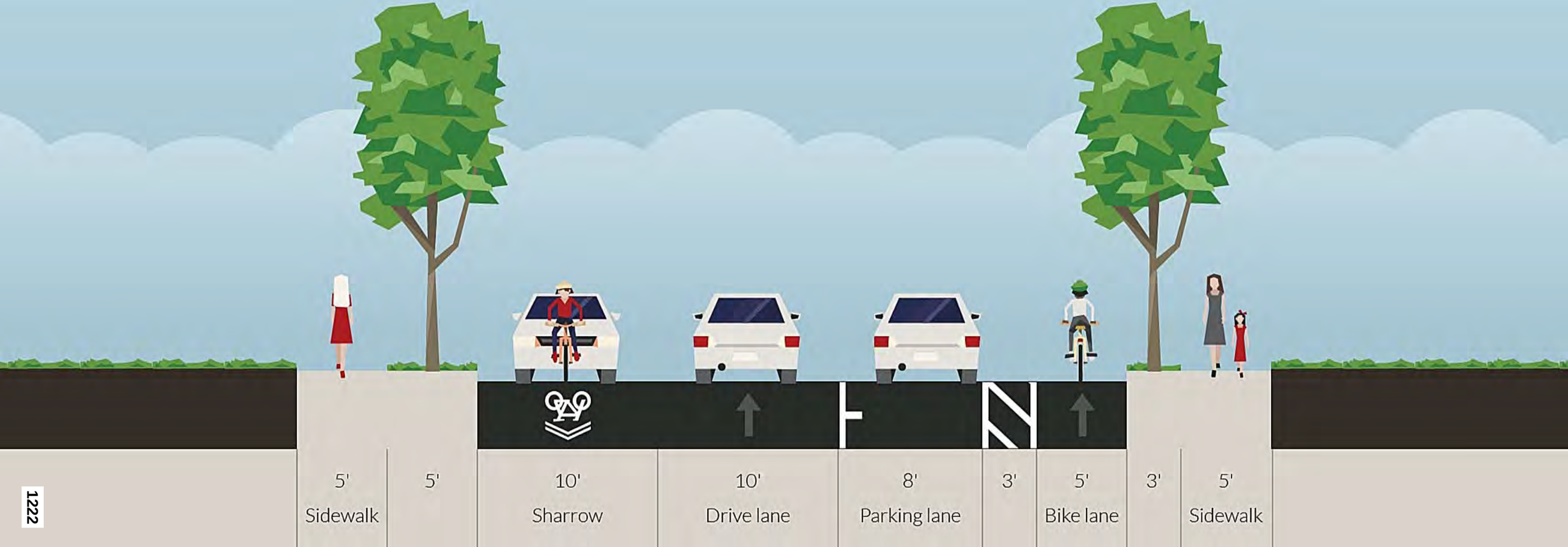
Beekman St: River–W Main (proposed)



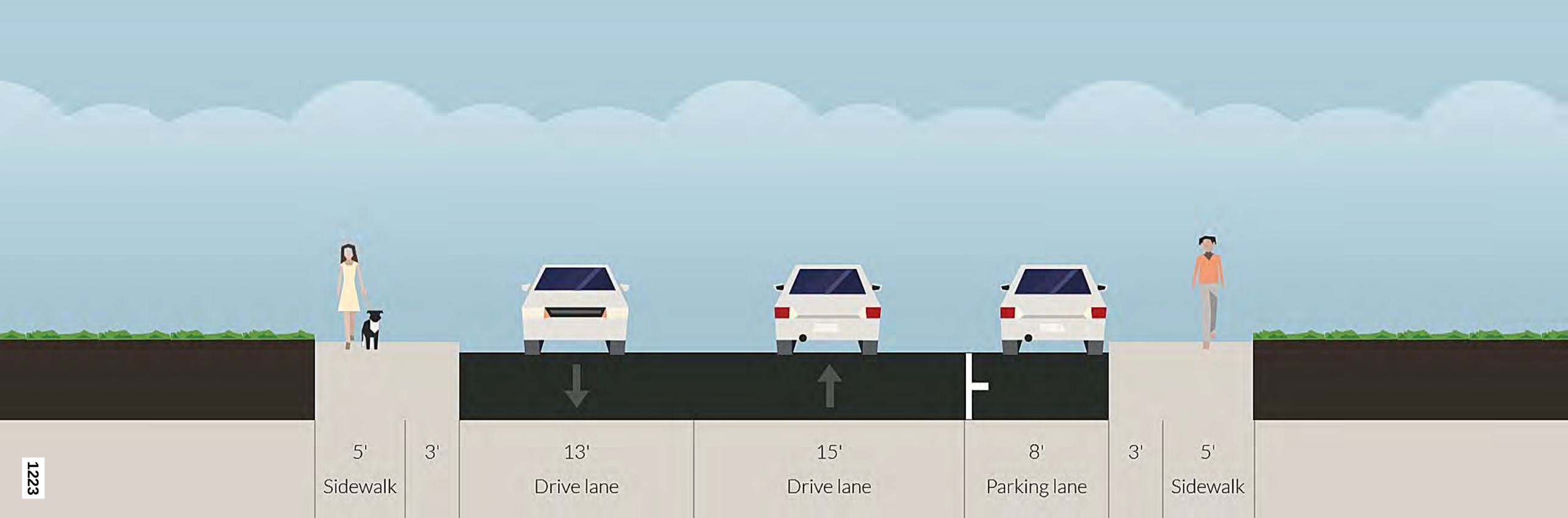
Beekman St: south of W Main St (existing)



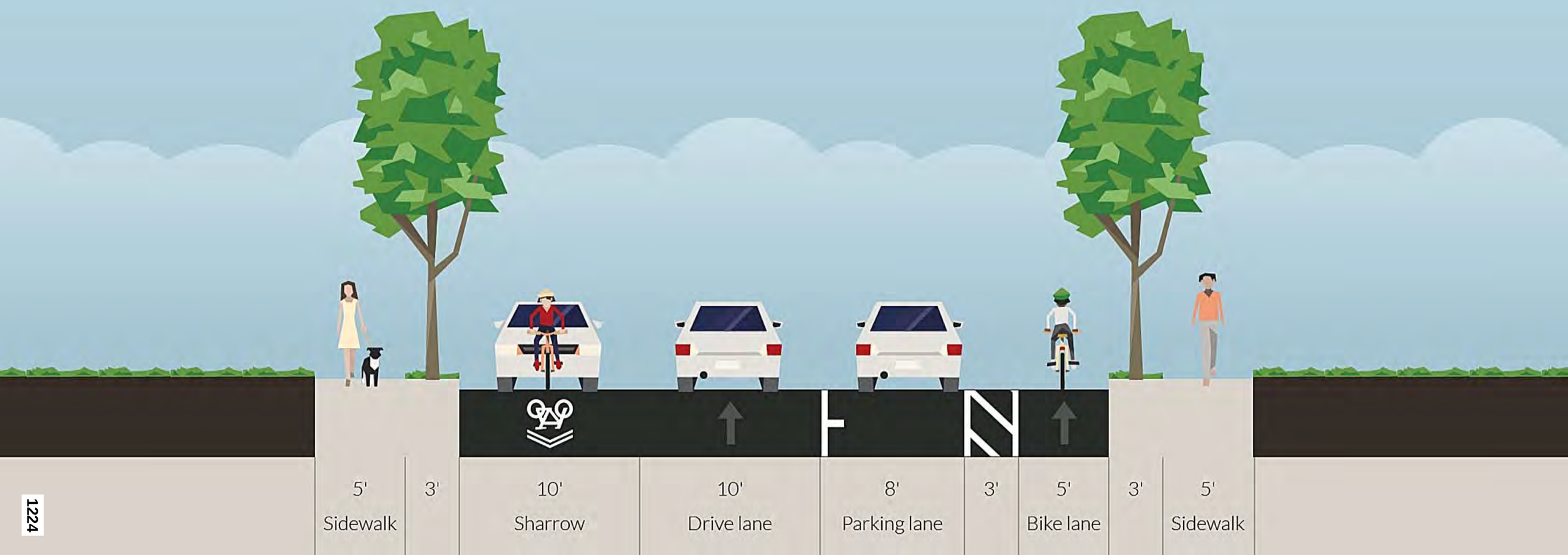
Beekman St: south of W Main St (proposed)



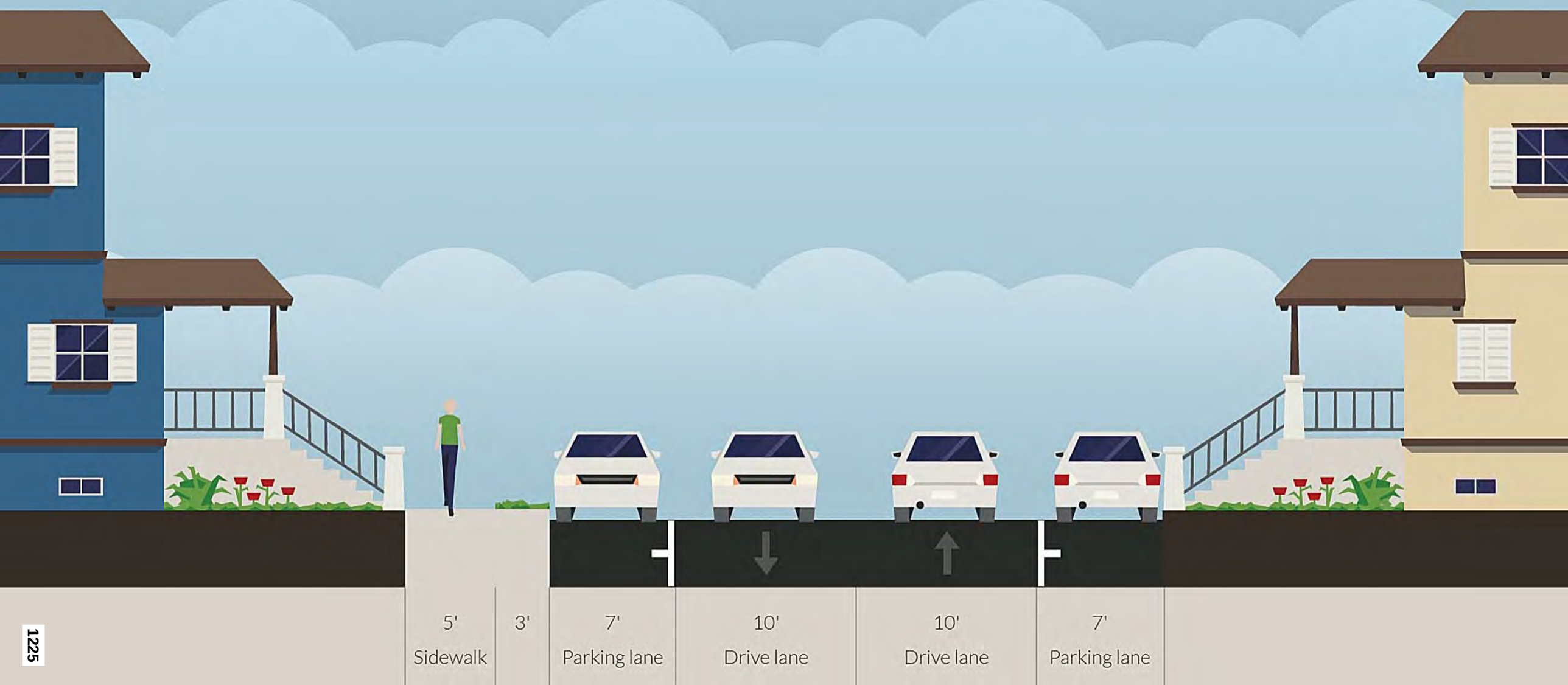
Beekman St: West Main St – 9D (existing)



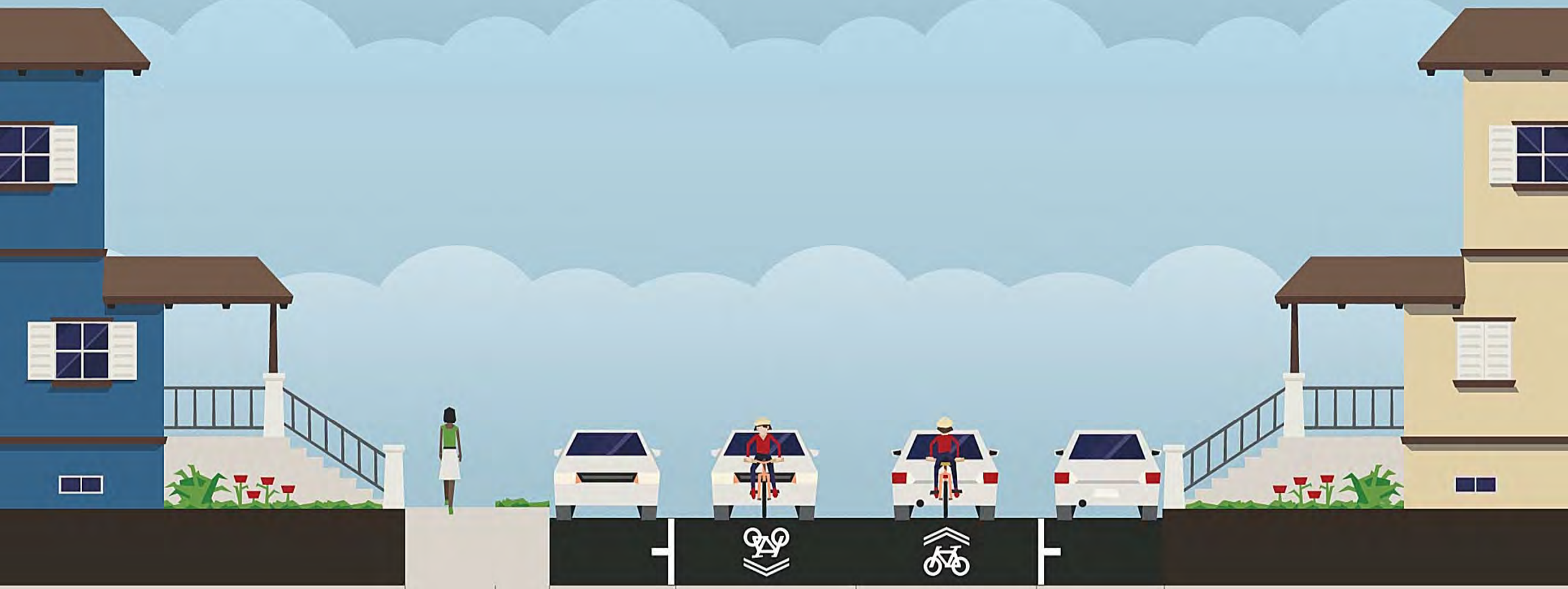
Beekman St: West Main St – 9D (proposed)



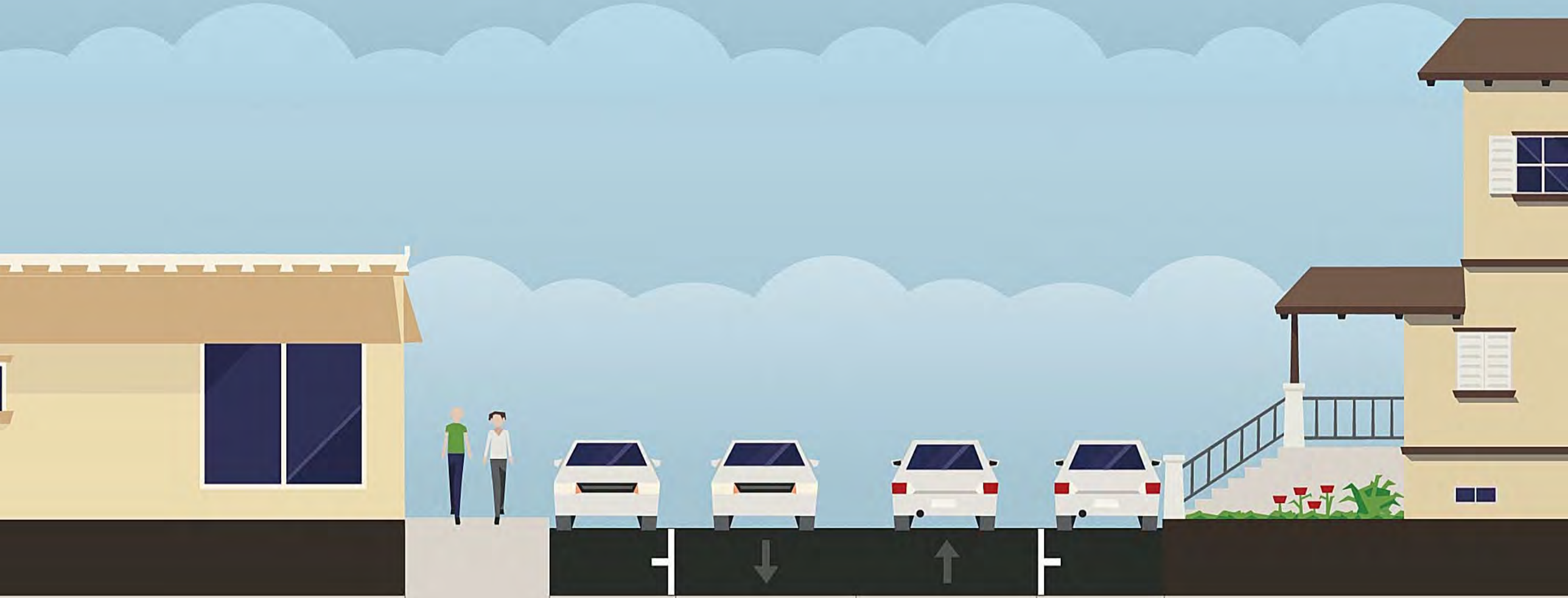
W Main St: west of Bank St (existing)



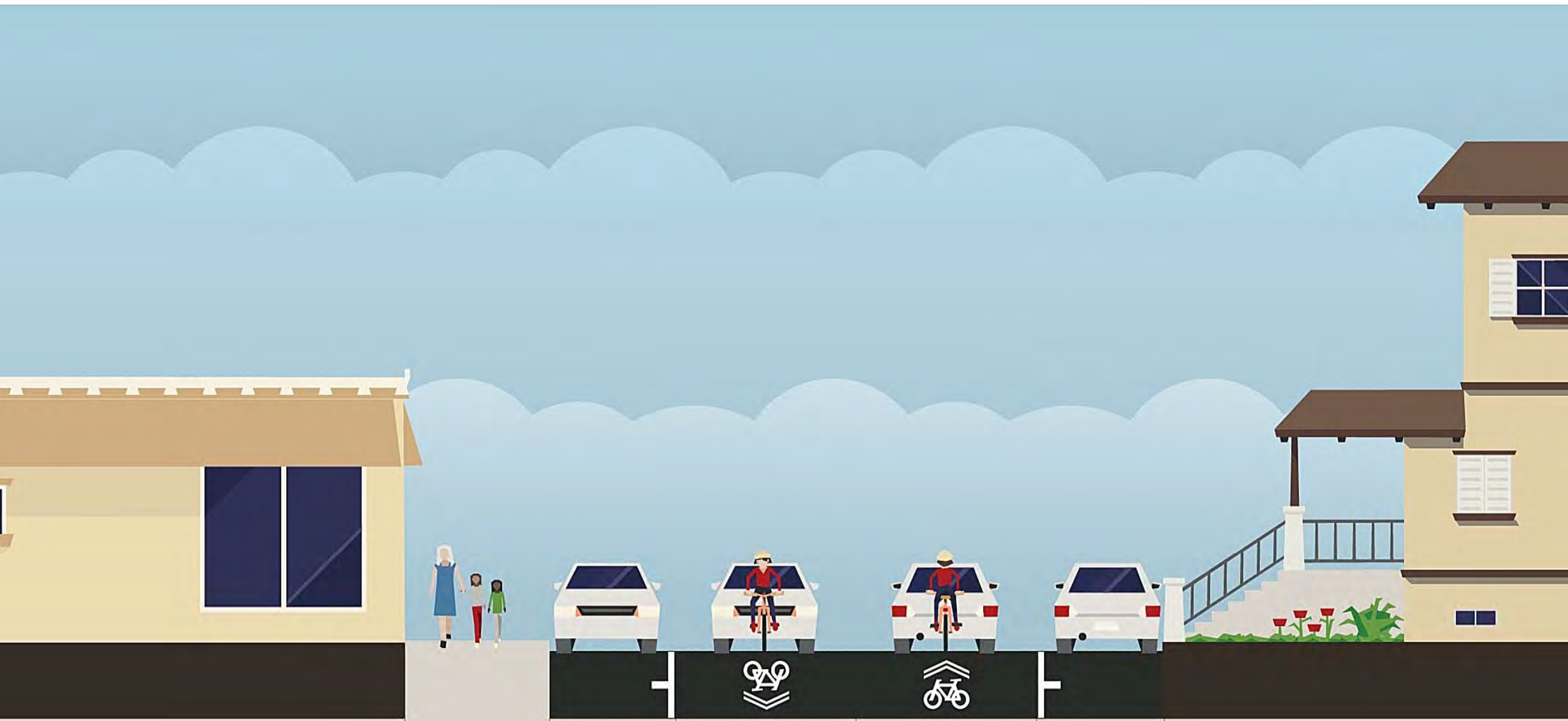
W Main St: west of Bank St (proposed)



W Main St: east of Bank St (existing)



W Main St: east of Bank St (proposed)



Colliers
Engineering
& Design

Traffic & Parking Study

Appendix F | Parking Data

§ 223-41.21. Regulations.

A. Uses by right. Uses listed below in this Subsection A are permitted by right subject to site plan review, except as otherwise noted in this § 223-41.21. Site plan review shall not be required for a change of use in an existing building where the new use is allowed by right, the building will not be expanded, and the minimum number of off-street parking spaces required for the new use in § 223-41.21F(2) is not more than 25% greater than the requirement for the existing use in § 223-26F herein. The following uses are allowed by right subject to a requirement that for any new construction of a principal building, an apartment use or attached, semidetached, or multifamily dwelling unit shall only be located on the upper stories or at least 50 feet behind the facade in the rear portion of the ground floor, if the building faces the north side of Beekman Street between Route 9D and West Main Street, faces the north side of West Main Street, or if the parcel is within 400 feet of the Route 9D-Beekman Street intersection, as identified on the Zoning Map: **[Amended 8-19-2013 by L.L. No. 14-2013; 7-21-2014 by L.L. No. 11-2014; 6-15-2020 by L.L. No. 7-2020; 2-16-2021 by L.L. No. 02-2021]**

(1) Multifamily dwelling.

(2) Attached or semidetached dwelling units.

(3) Apartment building.

(4) Inn.

(5) Bed-and-breakfast establishment.

(6) Artist studio, art gallery or exhibit space.

(7) Hotel.

(8) Park, plaza, green, preserve or community garden.

(9) Retail, personal services business, bank, or restaurant, coffee house, bar, brew pub or other establishment that serves food, with or without alcoholic beverages, provided that:

(a) The floor area of each such establishment is not greater than 5,000 square feet;

(b) The parcel is within 400 feet of the Route 9D-Beekman Street intersection, located along the north side of Beekman Street between Route 9D and West Main Street, or located along the north side of West Main Street, as identified on the Zoning Map.

(10) Office, trade school, training program, microbrewery or microdistillery, provided that:

(a) The total floor area of each such establishment is no greater than 25,000 square feet;

(b) The parcel is within 400 feet of the Route 9D-Beekman Street intersection, located along the north side of Beekman Street between Route 9D and West Main Street, or located along the north side of West Main Street, as identified on the Zoning Map.

(11) Government facility, including buildings, structures and uses owned or operated by the City of Beacon or any department or agency thereof.

(12) Day-care center.

(13) Museum, theater, concert, or conference space.

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(14) College, university, private school, or nursery school.

(15) Workshop.

(16) Artist live/work space, provided that, if the use faces the north side of Beekman Street between Route 9D and West Main Street, faces the north side of West Main Street, or if the parcel is within 400 feet of the Route 9D-Beekman Street intersection, the residential space shall only be located on the upper stories or at least 50 feet behind the facade in the rear portion of the ground floor, unless the first 50 feet behind the facade is used for the retail sale of the artist's wares.

(17) Spa, fitness center, or exercise studio.

(18) Wireless telecommunication services facilities, subject to § 223-26.4.

B. Uses by special permit. **[Amended 7-21-2014 by L.L. No. 11-2014; 4-3-2017 by L.L. No. 5-2017; 1-16-2018 by L.L. No. 1-2018; 10-15-2018 by L.L. No. 17-2018; 6-15-2020 by L.L. No. 7-2020]**

(1) The following uses are allowed in existing buildings as permitted uses. For newly constructed buildings, the following uses are allowed by special permit from the Planning Board, upon a finding that the proposed use is consistent with the City of Beacon Comprehensive Plan, will enhance the architectural character of the street, and will contribute to creating a more urban, pedestrian-friendly quality in the L District, and that the conditions and standards in § 223-18B(1)(a) through (f) have been met: **[Amended 2-16-2021 by L.L. No. 02-2021]**

(a) Manufacturing use or food preparation business that may also sell goods made on the site for consumption off the premises, provided that:

[1] The total manufacturing or food preparation business floor area of the building is no greater than 25,000 square feet;

[2] The parcel is within 400 feet of the Route 9D-Beekman Street intersection, located along the north side of Beekman Street between Route 9D and West Main Street, or located along the north side of West Main Street, as identified on the Zoning Map; and

[3] The Planning Board finds that there are no substantial detrimental effects on parking, traffic or on the character of surrounding neighborhoods or the community.

(b) Historic District and Landmark Overlay use, subject to § 23-24.7.

(2) In considering the appropriateness of the proposed use, the Planning Board shall consider impacts on shadows, traffic, and parking and may impose traffic and parking mitigation measures, including but not limited to provision of pedestrian walkways and stairways on-site.

B.1. Accessory uses. The following are permitted accessory uses in the L District: **[Added 7-21-2014 by L.L. No. 11-2014]**

(1) Any accessory building or use customarily incident to a permitted use, except outside storage.

(2) Signs, in accordance with the provisions of § 223-15, as applicable.

(3) Off-street parking areas, in accordance with § 223-41.21F.

(4) Exterior lighting, in accordance with the provisions of § 223-41.21K(12) and § 223-14B. **[Amended 6-15-2020 by L.L. No. 7-2020]**

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(5) Parking structure. **[Added 6-15-2020 by L.L. No. 7-2020[1]]**

(6) Roof garden or solar collector, site plan review not required.

(7) Greenhouse.

(8) Short-term rentals in any dwelling unit, or room(s) therein, located in a one-family home, two-family home, accessory apartment, or multifamily dwelling, as provided in § 223-26.5. **[Added 6-15-2020 by L.L. No. 6-2020[2]]**

C. Prohibited uses. Uses not listed in Subsection A or B above and the following specific uses are prohibited in the L District:

(1) Gasoline filling station.

(2) Drive-through facilities, stand-alone or used in connection with any other use.

D. Dimensional regulations. All new construction or enlargement of existing structures in the L District shall be subject to the following minimum and maximum dimensional regulations:

(1) Front setback: minimum zero, maximum 20 feet, except that a larger maximum may be allowed if a) surrounding buildings have a larger setback, in which case the setback line may be placed in a location that harmonizes with the prevailing setbacks, provided that there is no parking in the front yard other than on a driveway accessing a rear garage; and b) the area in front of a building has no parking spaces and is landscaped and used in a manner that enhances the street life by such means as pocket parks, gardens, fountains, outdoor tables, public art, and outdoor display of items for sale on the premises. At least 30% of any such outdoor space shall be landscaped with plant materials in a configuration approved by the Planning Board.

(2) Corner buildings: Corner buildings shall be treated as having frontage on both streets and front setbacks shall apply to both, as appropriate to the street.

(3) Side setbacks: minimum of zero, maximum of 30 feet. The minimum side setback may be increased by the Planning Board to allow light and air to continue to penetrate an existing building that has side windows.

(4) Rear setbacks: minimum 25 feet, except that if the rear yard is voluntarily dedicated to the City of Beacon as all or part of a public parking lot or parking structure, the minimum setback shall be 10 feet with landscaping to screen adjacent uses.

(5) Building height: minimum two stories, average maximum four stories and 48 feet, as determined from the average street front level. Stories built below the grade of the street front shall not be counted toward building height. The second story of a two-story building shall be built in a manner that allows actual occupancy for one or more permitted uses and does not create the mere appearance of a second story. For any building over three stories, a stepback of at least 15 feet behind the facade shall be required above the third story. Chimneys, vent pipes, mechanical systems, elevator shafts, antennas, wireless communications facilities, roof gardens and fences, greenhouses, solar collectors, wind energy systems, and other rooftop accessory

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1. **Editor's Note: This local law also repealed former Subsection B(5), which listed home occupation as a permitted accessory use.**

2. **Editor's Note: This local law provided the following: "This local law shall take effect on October 1, 2020. Any short-term rental, as defined herein, in existence prior to October 1, 2020 shall have until November 15, 2020, to file an application to obtain a short-term rental permit. Any short-term rental existing prior to October 1, 2020 that (a) does not meet the definition of short-term rental or (b) is a short-term rental, as defined, and does not file an application by November 15, 2020 shall be deemed to be in violation of this local law and subject to enforcement."**

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structures may project up to 15 feet above the maximum height. With the exception of roof gardens and solar collectors, such projections may occupy no more than 20% of the roof area and must be set back at least 15 feet from the front edge of the roof. **[Amended 4-3-2017 by L.L. No. 5-2017]**

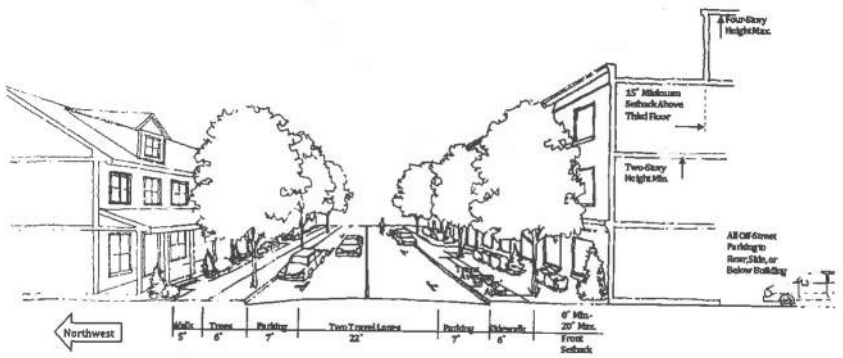
(6) Lot area and lot width: There are no minimum lot area or lot width requirements.

(7) Lot depth: Minimum lot depth is 75 feet, except that on any lot in which the area behind a building is voluntarily dedicated to the City as public parking, there shall be no minimum depth requirement.

(8) Floor area ratio: There is no maximum floor area ratio.

(9) Landscaped area: A minimum of 15% of the lot shall be landscaped with trees, shrubs, or grass, in locations approved by the Planning Board that enhance the streetscape or provide a landscaped interior courtyard and are found to be consistent with the intent of the L District. This requirement shall be reduced to 5% if the landscaped area is accessible to the public. These requirements may be waived for preexisting lots of 5,000 square feet or less.

Figure 21-0: Illustrative View of Proposed Linkage Zoning Requirements



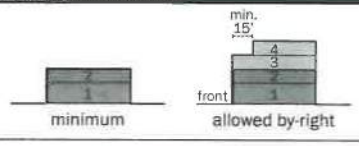
(10) Linkage Zone standards.

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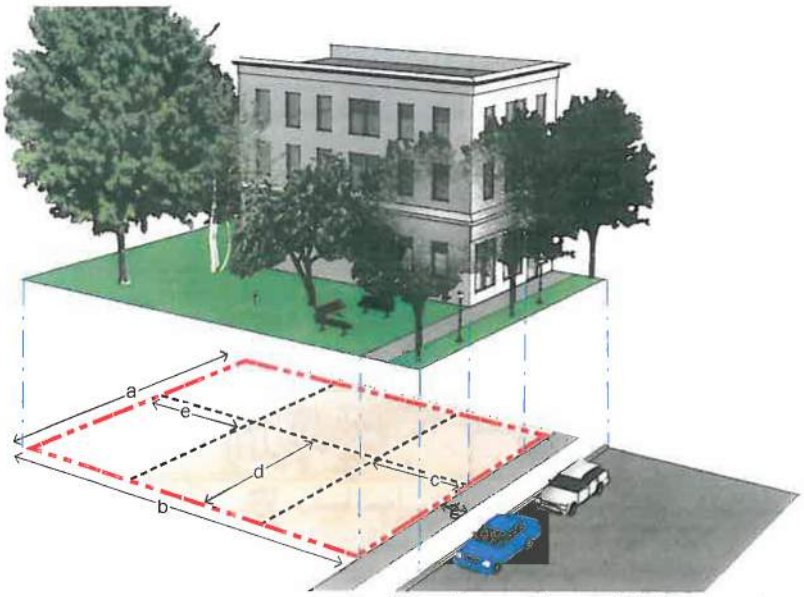
Figure 21-1: Linkage Zone Standards

LOT STANDARDS		Min.	Max.
	Lot Area	–	–
(a)	Lot Width	–	–
(b)	Lot Depth	75'	–
	F.A.R.	–	–
(c)	Front Setback	0'	20'
(d)	Side Setback	0'	30'
(e)	Rear Setback	25'	–
(f)	Landscaped Area	15%	–
	Frontage Occupancy	–	–
(g)	Pedestrian Clearway	5'	–

BUILDING HEIGHTS



FRONTAGE TYPES	Allowed
Storefront	within 400' of Rt. 9-D/Beekman St. intersection
Forecourt	yes
Stoop	yes
Porch	yes
Lightwell	yes



See text for exceptions and clarifications to Figure 21-1

E. Frontage types.

(1) The following building frontage types are permitted:

(a) Storefront, only at locations within 400 feet of the Route 9D-Beekman Street intersection.

(b) Forecourt.

(c) Stoop.

(d) Porch.

(e) Lightwell.

(2) Storefront: a frontage type where the building facade is placed at or close to the right-of-way line, with the entrance at sidewalk grade. This building frontage type is conventional for retail use. It is characterized by a high percentage of glazing on the first floor, a prominent entrance, and often an awning. Recessed doors on storefronts are acceptable.

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Figure 21-2: Illustrative View of Storefront Frontage Type

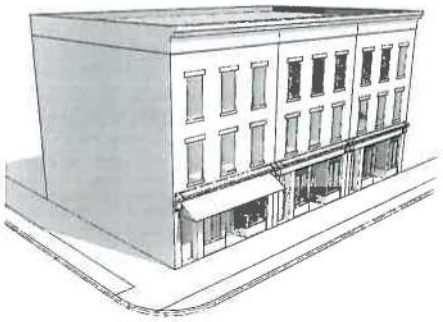


Figure 21-3: Section View of Storefront Frontage Type

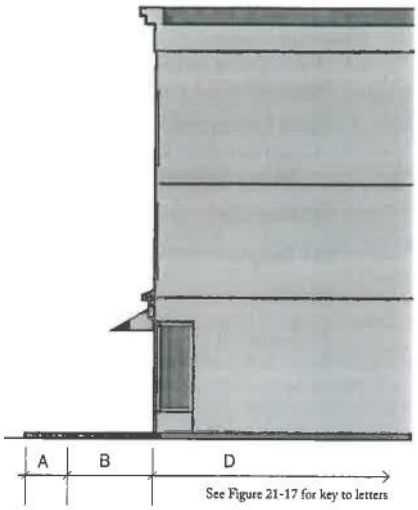
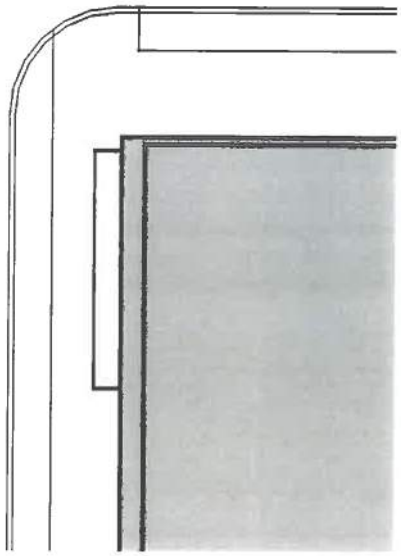


Figure 21-4: Plan View of Storefront Frontage Type



(3) Forecourt. A forecourt is a semi-public exterior space whose back and sides are surrounded by a building and whose front opens to a thoroughfare—forming a court. The court is suitable for gardens, gathering space, and outdoor dining.

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Figure 21-5: Illustrative View of Forecourt Frontage Type

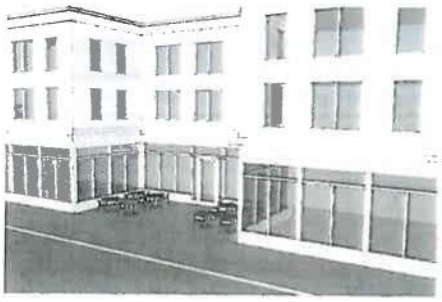
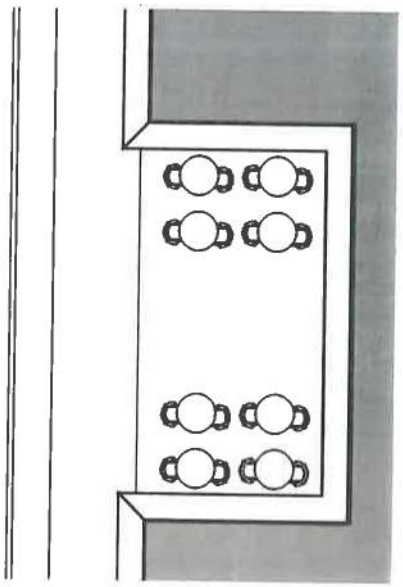


Figure 21-6: Section View of Forecourt Frontage Type



Figure 21-7: Plan View of Forecourt Frontage Type



(4) Stoop. In this frontage type, the building facade is aligned close to the frontage line. The first story is usually elevated sufficiently to provide some privacy for occupants. A stoop (composed of an elevated pad and stairs) lands at the edge of the sidewalk or a short front walkway. A small porch or roof may cover the stoop. This frontage type is suitable for ground-floor residential uses with short setbacks.

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Figure 21-8: Illustrative View of Stoop Frontage Type

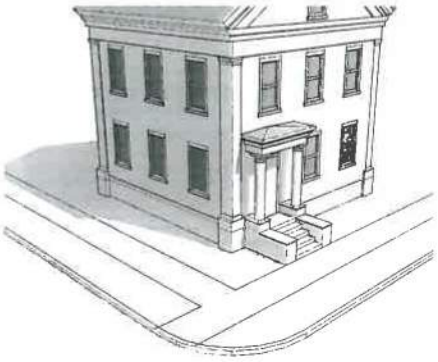


Figure 21-9: Section View of Stoop Frontage Type

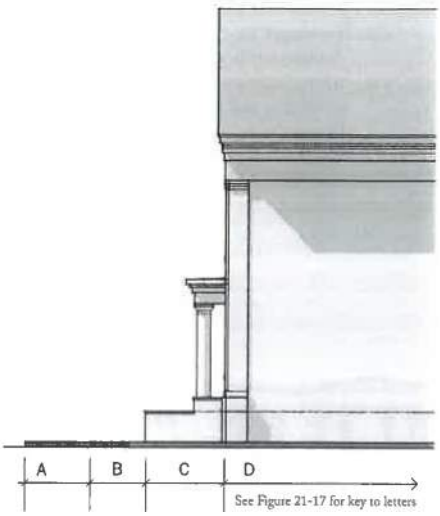
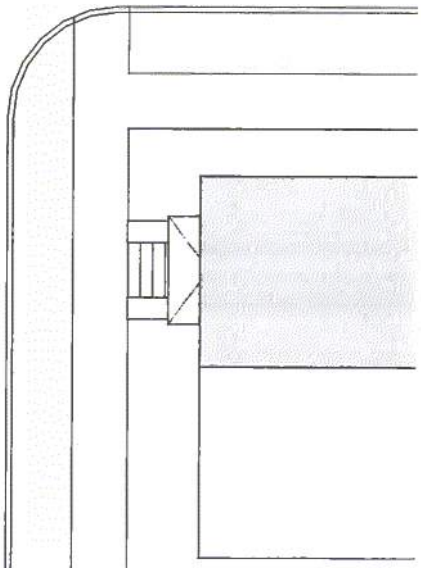


Figure 21-10: Plan View of Stoop Frontage Type



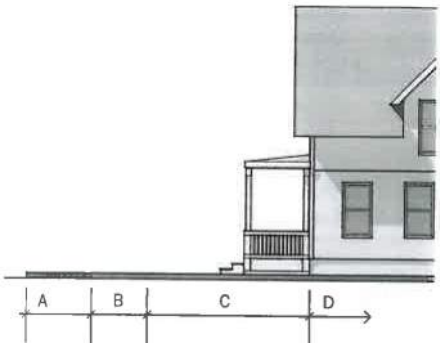
(5) Porch. A frontage type where the building facade is set back from the frontage line. The porch (a covered, but not enclosed, space) sits between the facade and the frontage line. The porch provides a transition from the public realm to the private realm. Porches are typically elevated above the surrounding grade. A porch should have a clear space that is a minimum of six feet deep and 10 feet wide.

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Figure 21-11: Illustrative View of Porch Frontage Type

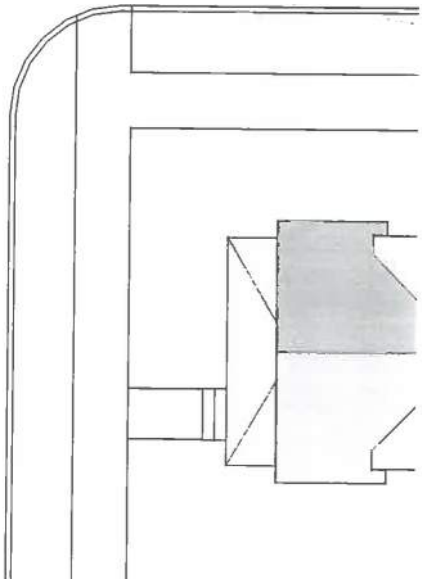


Figure 21-12: Section View of Porch Frontage Type



See Figure 21-17 for key to letters

Figure 21-13: Plan View of Porch Frontage Type



(6) Lightwell: a frontage type where the facade is set back from the frontage line. The ground floor of the building is elevated to allow light to enter the basement, which is typically occupied. Stairs lead up to the ground floor and down to a below-grade entrance and/or sunken court. The stairs typically land at the frontage line.

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Figure 21-14: Illustrative View of Lightwell Frontage Type

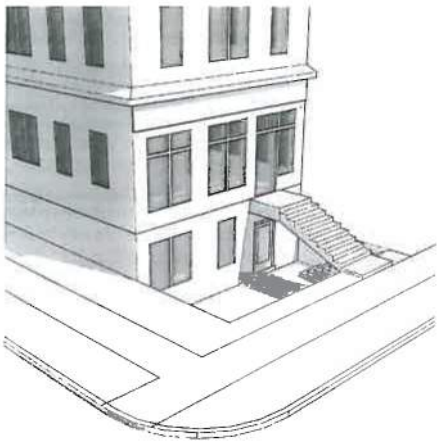
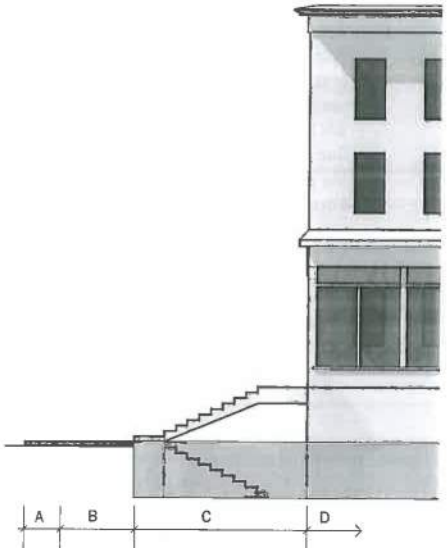
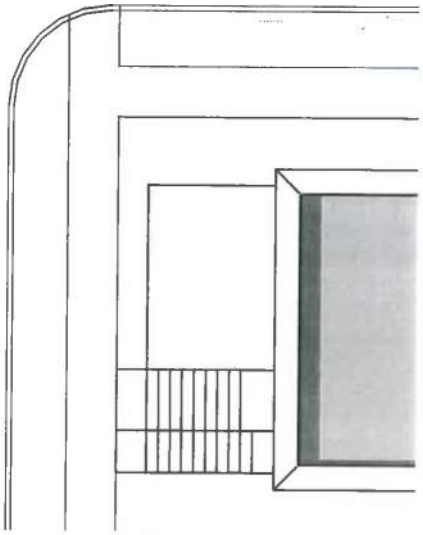


Figure 21-15: Section View of Lightwell Frontage Type



See Figure 21-17 for key to letters

Figure 21-16: Plan View of Lightwell Frontage Type



F. Parking location and quantity.

(1) All off-street parking shall be located behind, underneath, or to the side of a building. If on the side, it shall be located at least 40 feet from any property line that fronts on a street and be screened by a low brick or stone wall, hedge, ornamental fence, and/or other landscaping that maintains the continuity of the street and that screens parked cars from view from the street.

(2) The minimum quantity of required on-site parking spaces shall be as follows:

(a) Residential: one space per unit.

(b) Office and general commercial: 2.5 spaces per 1,000 square feet of floor area.

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(c) Retail commercial and personal services: three spaces per 1,000 square feet of floor area.

(d) Other uses: as listed in § 223-26 of this chapter. **[Amended 4-3-2017 by L.L. No. 5-2017]**

(3) The quantity of required on-site parking in Subsection F(2) above may be modified by the Planning Board, in its discretion, based upon information submitted by the applicant or otherwise made available to the Planning Board in the public record, demonstrating one or more of the following:

(a) That the projected operational characteristics of the proposed use and/or its proximity within walking distance of the train station and other services justify a reduction in the required amount of parking.

(b) That adequate shared parking, contractually obligated for the duration of the proposed use, is available within 500 feet of the site and in the L District.

(c) That the applicant has provided sufficient bicycle parking to reduce anticipated vehicular travel demand, as supported by a professional parking study. **[Amended 4-3-2017 by L.L. No. 5-2017]**

(d) That there is sufficient public parking available within 800 feet of the site and in the L District to meet foreseeable parking needs of the proposed use and surrounding uses for the duration of the proposed use.

(e) That the applicant will voluntarily dedicate land for public parking on site or will acquire land by purchase or long-term lease (for the duration of the proposed use) within 800 feet of the site and in the L District and voluntarily dedicate such land to the City for public parking.

(f) That a professional parking study of the proposed use and the surrounding area demonstrates that a different amount of parking would be appropriate for the use in its particular location and/or that existing and/or proposed off-site parking is sufficient.

(4) For small preexisting lots where the provision of on-site parking is infeasible, the Planning Board may waive up to 50% of the parking requirements, provided that the total floor area of the building is no greater than 3,000 square feet. The Planning Board may grant additional parking waivers, at its discretion, subject to an in-lieu payment of $10,000 per parking space. **[Amended 4-3-2017 by L.L. No. 5-2017]**

(5) Section 223-26B of this chapter shall not apply in the L District.

G. Streetscape improvements.

(1) On West Main Street, Beekman Street, and Wolcott Avenue, within the building transition zone, the Planning Board may require the lot owner to provide planters, trees, shrubs, or other landscaping to enhance the appearance of the streetscape. Ornamental fencing four feet or less in height may be provided to separate privately owned space from public space. Chain link, vinyl, and solid fencing shall be prohibited. For commercial uses, display areas, and outdoor dining and seating areas may be provided.

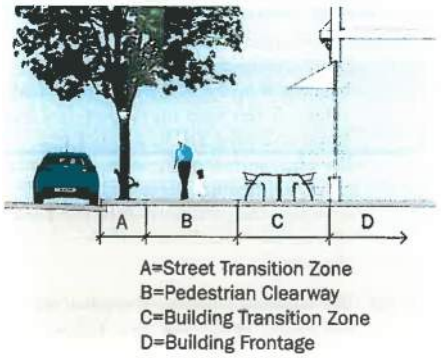
(2) A pedestrian clearway, at least five feet wide, with unobstructed space for pedestrian activity, shall be provided along the sidewalk, unless site conditions require a narrower clearway. A pedestrian clearway of eight feet shall be provided along storefront frontages.

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(3) Within the street transition zone, if space permits, lot owners may plant trees and place benches, tables, and outdoor seating areas with the approval of the Department of Public Works. The Planning Board may require the planting of street trees on average 30 feet to 40 feet apart as a condition of site plan approval. To the extent practical, an applicant shall, in cooperation with the City of Beacon Department of Public Works, implement the recommendations in the Linkage Plan street sections for Beekman Street and Wolcott Avenue.

(4) The Planning Board may require that an applicant constructing a building greater than 10,000 square feet in floor area pay for the provision of related street improvements to improve pedestrian and/or bicycle safety.

Figure 21-17: Parts of the Streetscape



H. (Reserved).[3]

I. Site plan and special permit amendments. For any proposed change to an approved site plan, the applicant shall meet with the Building Inspector who shall make a determination as to whether or not the proposed change is significant. If the Building Inspector determines that the change is significant (e.g., a change of use and/or a change in dimensions of more than 10% shall be presumed to be significant), the application shall be referred to the Planning Board for an amendment to the site plan or special permit, as appropriate. If the Building Inspector determines that the change is not significant and otherwise complies with applicable requirements, the Building Inspector is authorized to issue a building permit without further review.

J. Compliance with below market rate housing requirements. All applications involving residential development shall comply with Article IVB of this chapter (Affordable-Workforce Housing).

K. Design standards.

(1) Because of the design standards in this section, the architectural review provisions of Chapter 86 shall not apply within the L District. In addition to the preceding sections of this article, all new buildings or substantial alterations of existing buildings shall comply with the following design requirements. These design standards are intended to promote the following purposes:

(a) Preserve and enhance the unique character of the City of Beacon;

(b) Promote pedestrian access and activity, as well as a general sense of area security;

3. **Editor's Note: Former Subsection H, Site plan review/special permit procedures and criteria, as amended, was repealed 6-15-2020 by L.L. No. 7-2020.**

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(c) Restore and maintain the role of streets as civic and social spaces, framed by active uses;

(d) Encourage economic development and a convenient mix of uses and services; and

(e) Support a sense of design context that appropriately relates historic buildings, general facade and window patterns, and traditional streetscapes in the area to new redevelopment efforts, while still allowing contemporary architectural flexibility.

(2) Standards using the verb "shall" are required; "should" is used when the standard is to be applied unless the Planning Board finds a strong justification for an alternative solution in an unusual and specific circumstance; and "may" means that the "standard" is an optional guideline that is encouraged but not required.

(3) Buildings should have a top-floor cornice feature and first-floor architectural articulation, such as a storefront with a secondary cornice or an architecturally emphasized entrance doorway, to accent the central body of the building.

(4) Architectural features and windows should be continued on all sides of the building that are clearly visible from a street or public parking area, avoiding any blank walls, except in cases of existing walls or potential common property walls. Larger buildings shall incorporate significant breaks in the facades and rooflines at intervals of no more than 35 feet.

(5) Building elements that provide additional architectural interest, such as bay windows, and cornices, but not including balconies or porches, may encroach up to two feet beyond the front line if the bottom of the encroaching building elements is at least 12 feet above grade. **[Amended 12-9-2019 by L.L. No. 12-2019]**

(6) Metal, glass or canvas-type awnings and canopies or projecting signs are encouraged and may encroach up to six feet into the front setback and over the sidewalk above seven feet. Vinyl awnings are discouraged unless the applicant can demonstrate to the Planning Board's satisfaction that the finish and design of such awning are of high quality, aesthetically pleasing and meet the intended standards of the district, as determined by said Board. **[Amended 7-21-2014 by L.L. No. 11-2014]**

(7) Buildings shall have a front entrance door facing the primary street and connected to the sidewalk. Front entrance doors for commercial buildings and retail storefronts shall be active and provide main access during business hours.

(8) Primary individual window proportions shall be greater in height than in width. Mirrored, reflective, or tinted glass, all-glass walls, and exterior roll-down security gates shall not be permitted. Any shutters shall match the size of the window opening, appear functional, and be attached to the window frame.

(9) Commercial buildings shall have at least 70% glass on the first-floor facades, located between two feet and 10 feet above the sidewalk. Residential buildings shall have at least 30% glass on the first-floor facades.

(10) Finish building materials should be wood, brick, traditional cement-based stucco, stone or fiber-cement siding or other material deemed acceptable by the Planning Board. Vinyl, aluminum or sheet metal siding or sheet trim, exposed concrete blocks or concrete walls, plywood or other similar prefabricated panels, unpainted or unstained lumber, synthetic stone or brick, or synthetic stucco, exterior insulation and finishing system (EIFS), or direct-applied finish system (DAFS), and chain link fencing shall not be permitted. **[Amended 7-21-2014 by L.L. No.**

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11-2014]

(11) Materials and colors should complement historic buildings on the block.

(12) Lighting fixtures shall be a maximum of 15 feet in height, except pole lights in rear parking lots shall be a maximum of 20 feet high. All exterior lighting shall comply with the standards in §223-14B. **[Amended 6-15-2020 by L.L. No. 7-2020]**

(13) Mechanical equipment and refuse containers shall be concealed from public view by approved architectural elements and shall be located to the rear of the site. Window or projecting air conditioners shall not be permitted on the front facade.

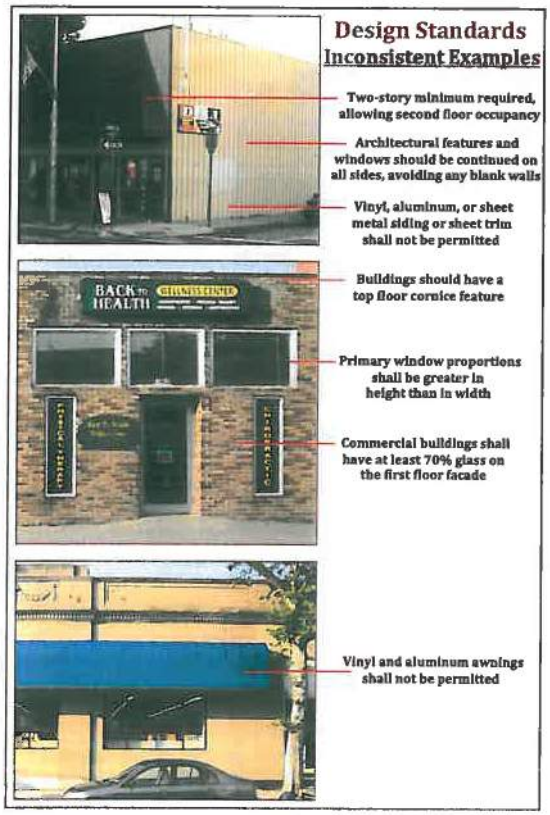
(14) The Planning Board may waive setback requirements for landmark civic buildings, including government buildings, schools, libraries, or places of worship, and for pedestrian-oriented places, such as public greens or plazas and outdoor eating areas.

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Figure 21-18: Design Standards Examples A [Amended 6-15-2020 by L.L. No. 7-2020]



Figure 21-19: Design Standards Examples B



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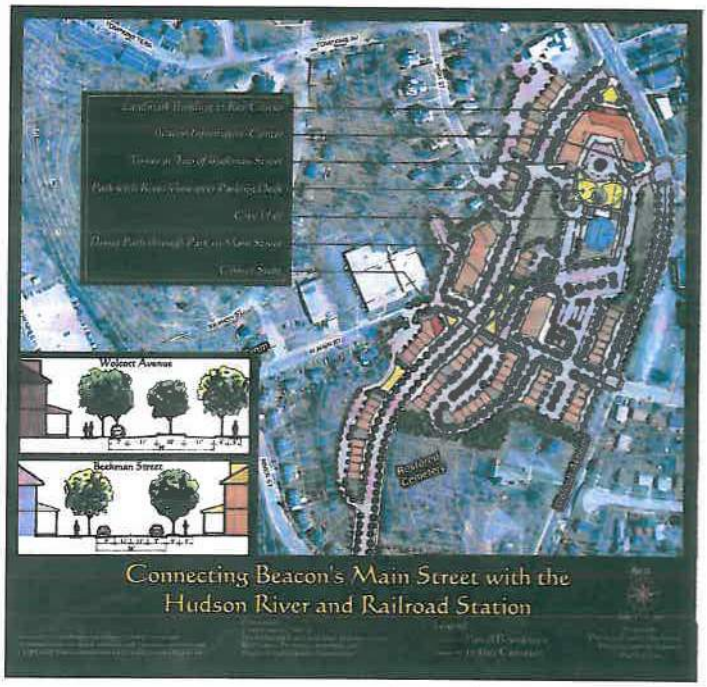
Figure 21-20: Design Standards Examples C



L. Linkage plan. This sketch plan provides one possible set of design solutions, which was included in the 2007 Comprehensive Plan Appendix as an illustration of planning principles for the Linkage District.

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Figure 21-21: Connecting Beacon's Main Street with the Hudson River and Railroad Station



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Land Use: 220 Multifamily Housing—2+ BR (Low-Rise)

Description

Low-rise multifamily housing with two-or-more bedrooms is a residential building with two or three floors (levels) of residence that contain at least one dwelling unit with two or more bedrooms.

Various configurations can fit this description, including the following:

- Walkup apartment or multiplex-access to the individual dwelling units is typically internal to the structure and provided through a shared entry, stairway, and hallway
- Mansion apartment-several dwelling units within what appears from the outside to be a single-family dwelling unit
- Stacked townhouse-designed to match the external appearance of a townhouse, but which have dwelling units that share both floors and walls and with access through a central entry and stairway

Land Use Subcategory

Data are separated into two subcategories for this land use: (1) not close to rail transit and (2) close to rail transit. A site is considered close to rail transit if the walking distance between the residential site entrance and the closest rail transit station entrance is ½ mile or less.

Time-of-Day Distribution for Parking Demand

The following table presents a Time-of-Day distribution of parking demand (1) on a weekday (13 study sites) and a Saturday (eight study sites) in a general urban/suburban setting and (2) on a weekday (three study sites) and a Saturday (three study sites) in a dense multi-use urban setting.

	Percent of Peak Parking Demand			
	General Urban/Suburban		Dense Multi-Use Urban	
Hour Beginning	Weekday	Saturday	Weekday	Saturday
12:00-4:00 a.m.	97	92	89	100
5:00 a.m.	100	100	100	92
6:00 a.m.	96	99	97	92
7:00 a.m.	85	97	84	84
8:00 a.m.	67	92	58	76
9:00 a.m.	54	83	55	81
10:00 a.m.	48	79	47	78
11:00 a.m.	45	71	55	86
12:00 p.m.	45	68	55	81
1:00 p.m.	42	65	55	73
2:00 p.m.	42	62	42	70
3:00 p.m.	47	66	45	49
4:00 p.m.	49	66	47	51
5:00 p.m.	56	67	50	46
6:00 p.m.	64	70	68	43
7:00 p.m.	72	78	58	49
8:00 p.m.	77	77	58	59
9:00 p.m.	85	80	61	62
10:00 p.m.	92	82	74	76
11:00 p.m.	95	88	84	86

Additional Data

The average parking supply ratios and average peak parking occupancy for the study sites with parking supply information are shown in the table below.

Setting	Proximity to Rail Transit	Parking Supply Per Dwelling Unit	Average Peak Parking Occupancy
Dense Multi-Use Urban	Within ½ mile of rail transit	1.2 (21 sites)	73%
	Not within ½ mile of rail transit	1.3 (18 sites)	70%
General Urban/ Suburban	Within ½ mile of rail transit	1.6 (31 sites)	72%
	Not within ½ mile of rail transit	1.7 (114 sites)	72%

The sites were surveyed in the 1990s, the 2000s, the 2010s, and the 2020s in Alberta (CAN), Arizona, California, Colorado, District of Columbia, Maine, Maryland, Massachusetts, New Jersey, Ontario (CAN), Oregon, Pennsylvania, Tennessee, Virginia, Washington, and Wisconsin.

Source Numbers

209, 218, 219, 247, 255, 277, 314, 402, 414, 419, 432, 437, 505, 512, 533, 535, 536, 537, 538, 544, 545, 577, 578, 579, 580, 584, 585, 587, 603, 604, 610, 611, 617, 620, 631

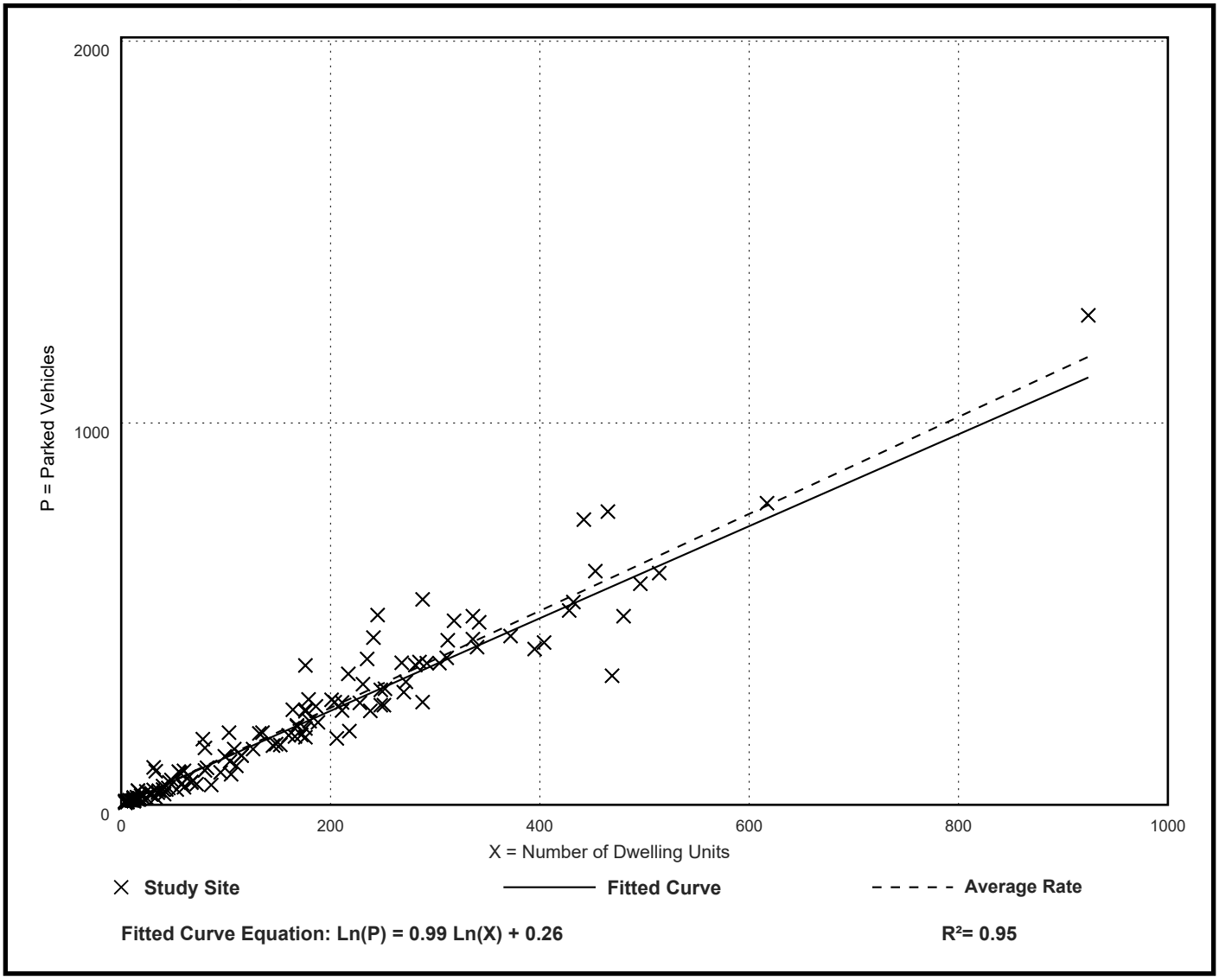
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

Peak Period Parking Demand vs: Dwelling Units
On a: Weekday (Monday - Friday)
Setting/Location: General Urban/Suburban
Number of Studies: 143
Avg. Num. of Dwelling Units: 154

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.27	0.58 - 3.16	1.07 / 1.59	1.22 - 1.32	0.29 (23%)

Data Plot and Equation



Fitted Curve Equation: Ln(P) = 0.99 Ln(X) + 0.26

R^2= 0.95

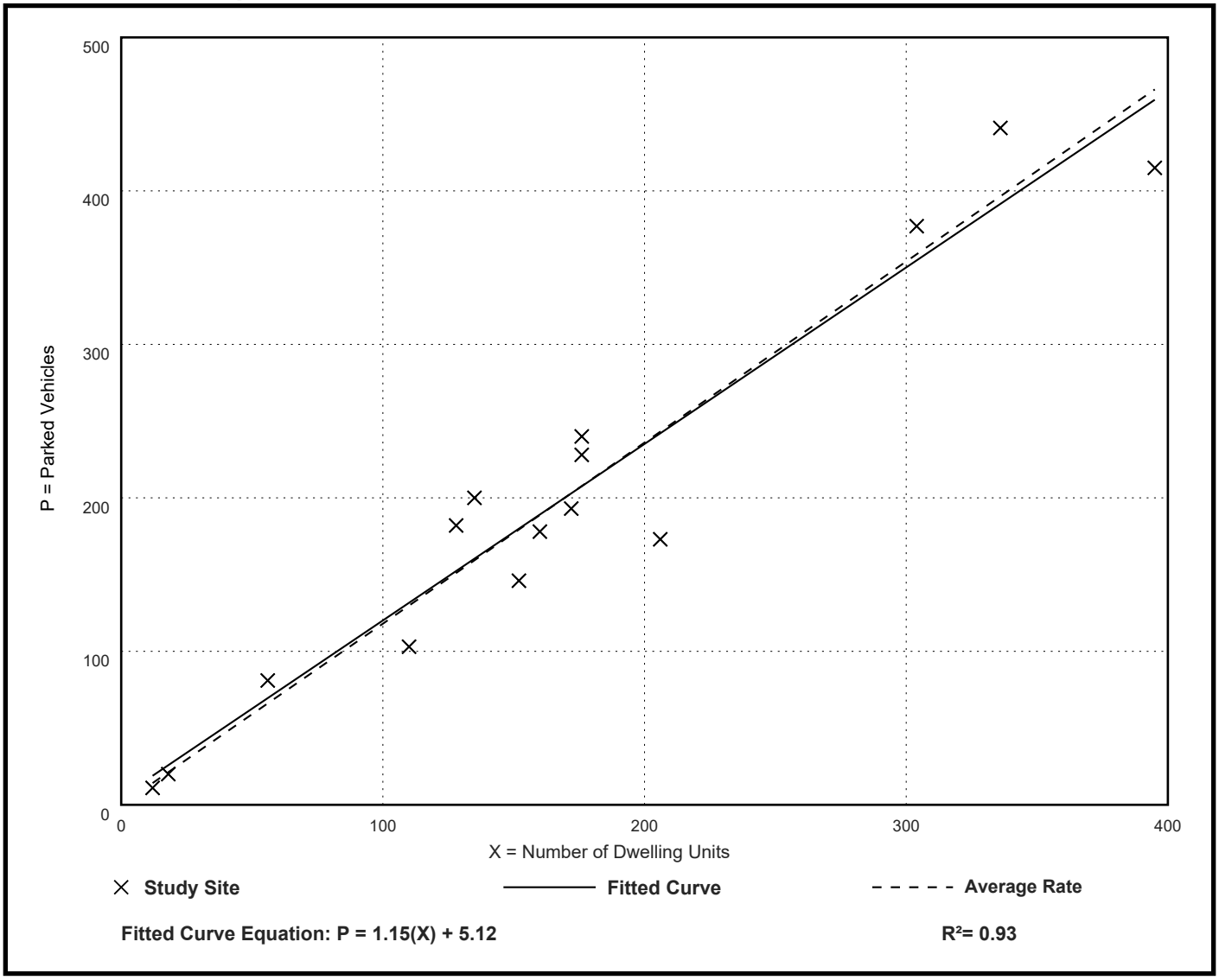
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

Peak Period Parking Demand vs: Dwelling Units
On a: Saturday
Setting/Location: General Urban/Suburban
Number of Studies: 15
Avg. Num. of Dwelling Units: 169

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.18	0.84 - 1.48	1.07 / 1.44	***	0.19 (16%)

Data Plot and Equation



Fitted Curve Equation: P = 1.15(X) + 5.12

R^2= 0.93

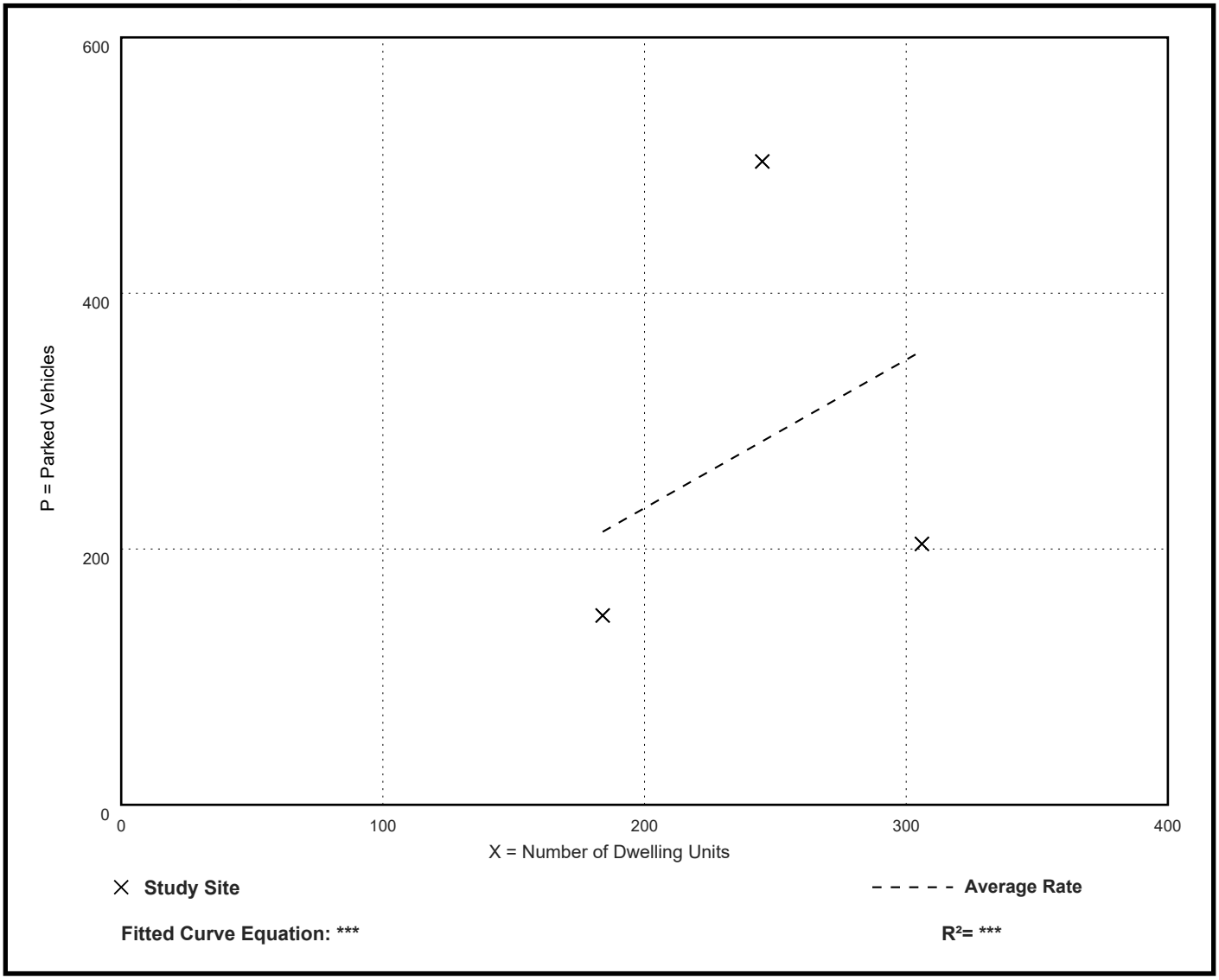
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

Peak Period Parking Demand vs: **Dwelling Units**
On a: **Sunday**
Setting/Location: **General Urban/Suburban**
Number of Studies: 3
Avg. Num. of Dwelling Units: 245

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.16	0.67 - 2.05	0.71 / 2.05	***	0.77 (66%)

Data Plot and Equation



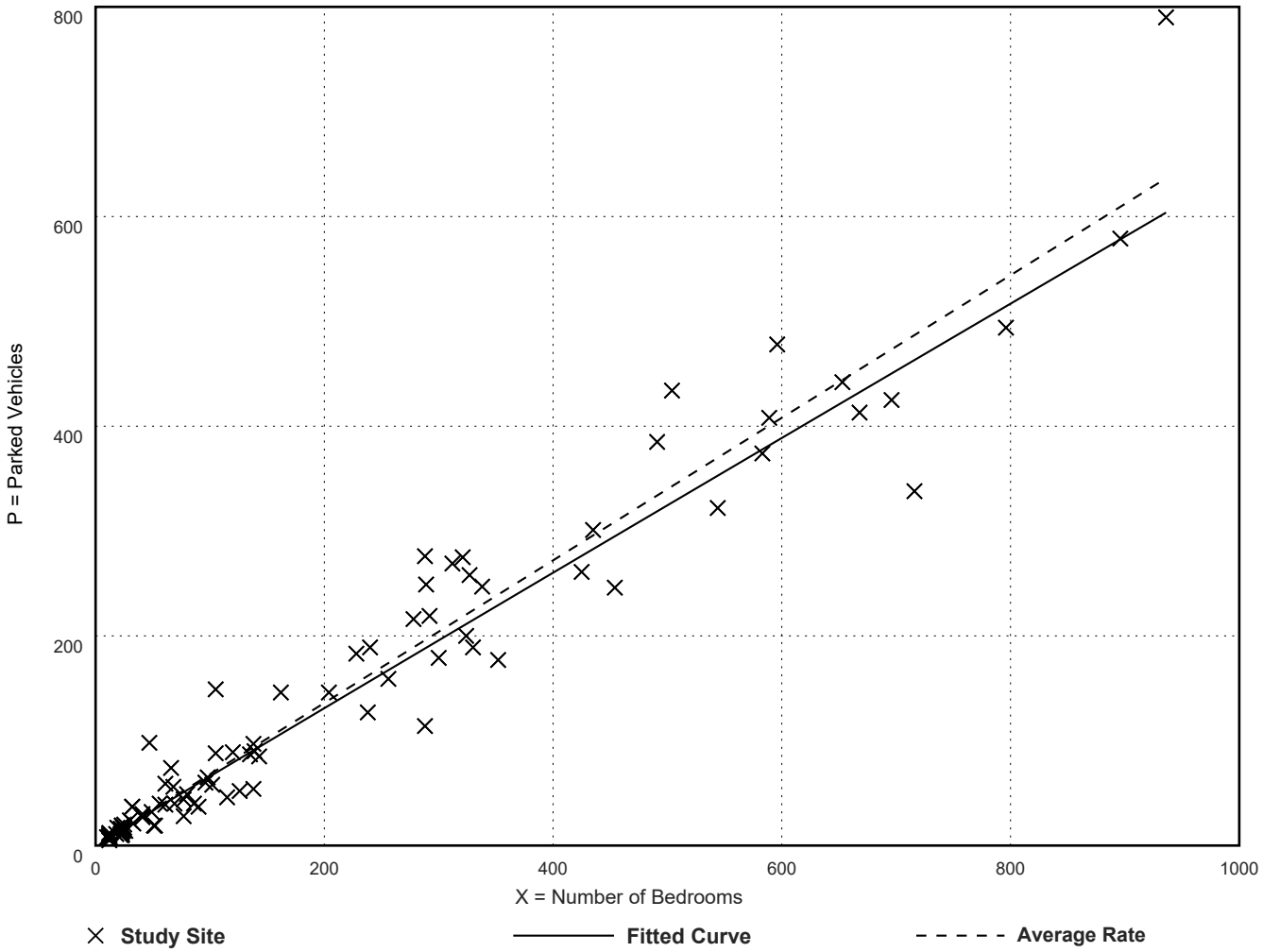
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

Peak Period Parking Demand vs: **Bedrooms**
On a: **Weekday (Monday - Friday)**
Setting/Location: **General Urban/Suburban**
Number of Studies: 97
Avg. Num. of Bedrooms: 192

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.68	0.36 - 2.09	0.61 / 0.86	0.65 - 0.71	0.16 (24%)

Data Plot and Equation



Fitted Curve Equation: Ln(P) = 0.99 Ln(X) - 0.37

R^2= 0.95

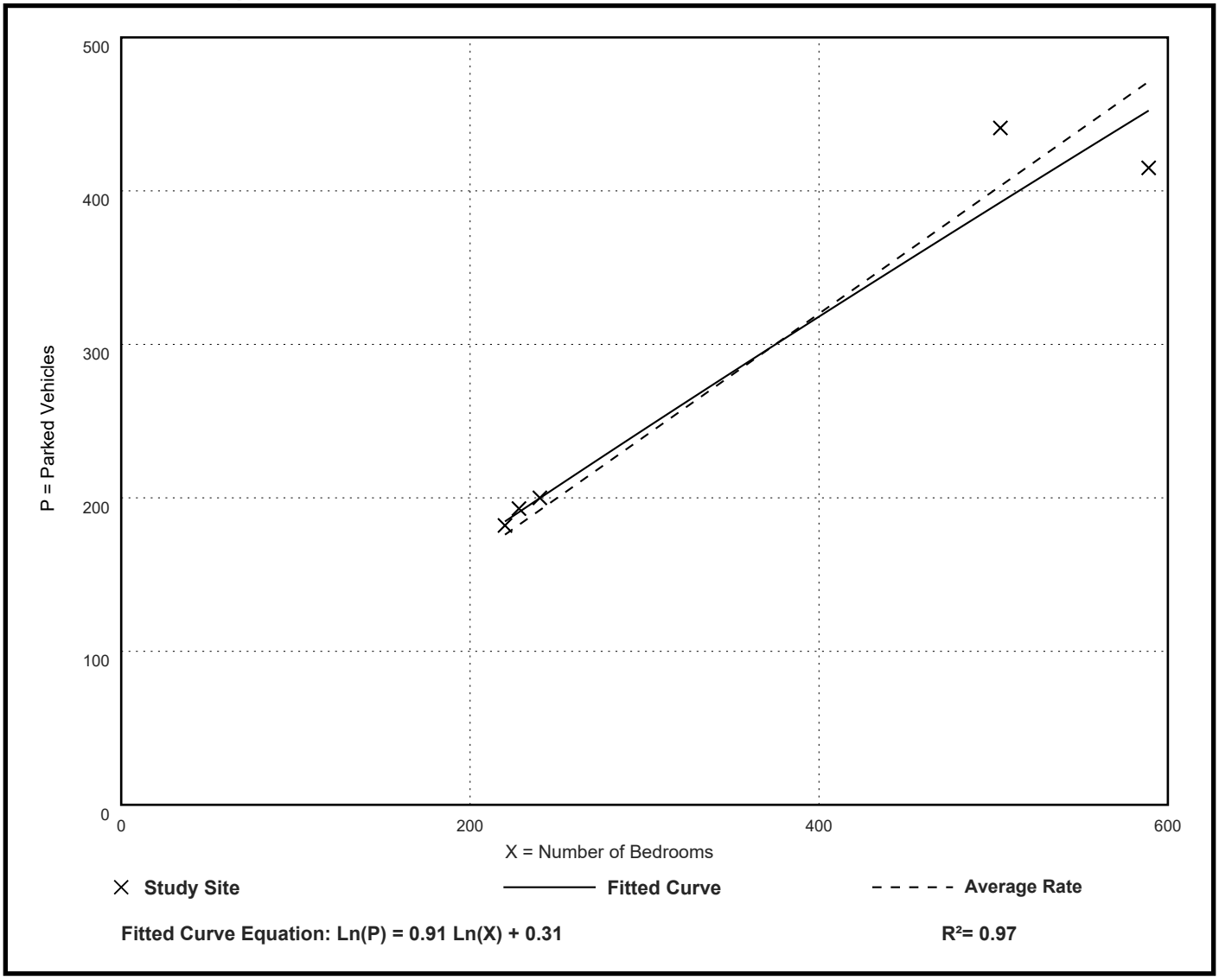
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

Peak Period Parking Demand vs: **Bedrooms**
On a: **Saturday**
Setting/Location: **General Urban/Suburban**
Number of Studies: 5
Avg. Num. of Bedrooms: 356

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.80	0.70 - 0.88	0.82 / 0.88	***	0.08 (10%)

Data Plot and Equation



Fitted Curve Equation: Ln(P) = 0.91 Ln(X) + 0.31

R^2= 0.97

Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

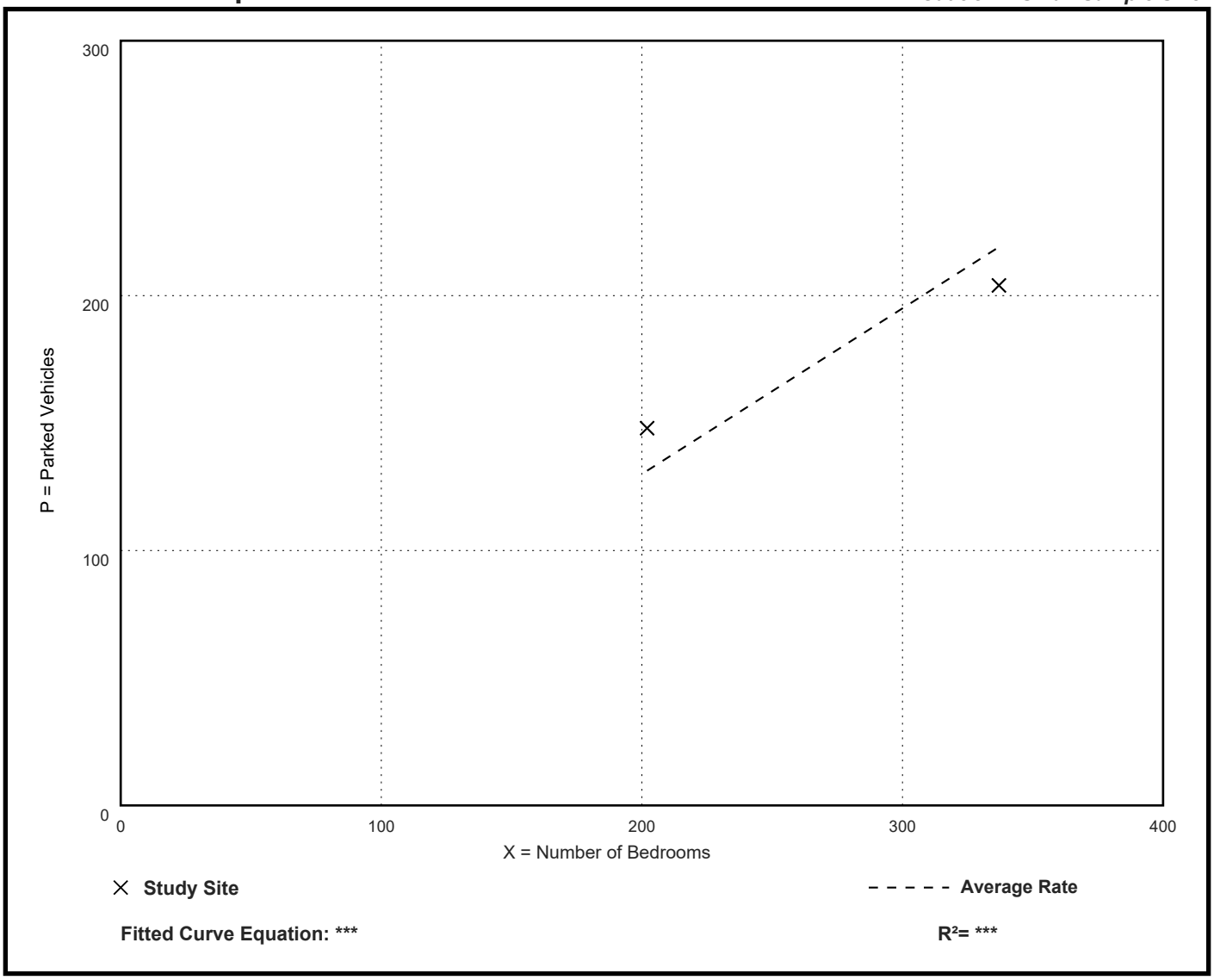
Peak Period Parking Demand vs: Bedrooms
On a: Sunday
Setting/Location: General Urban/Suburban
Number of Studies: 2
Avg. Num. of Bedrooms: 270

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.65	0.61 - 0.73	*** / ***	***	*** (***)

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: ***

R^2= ***

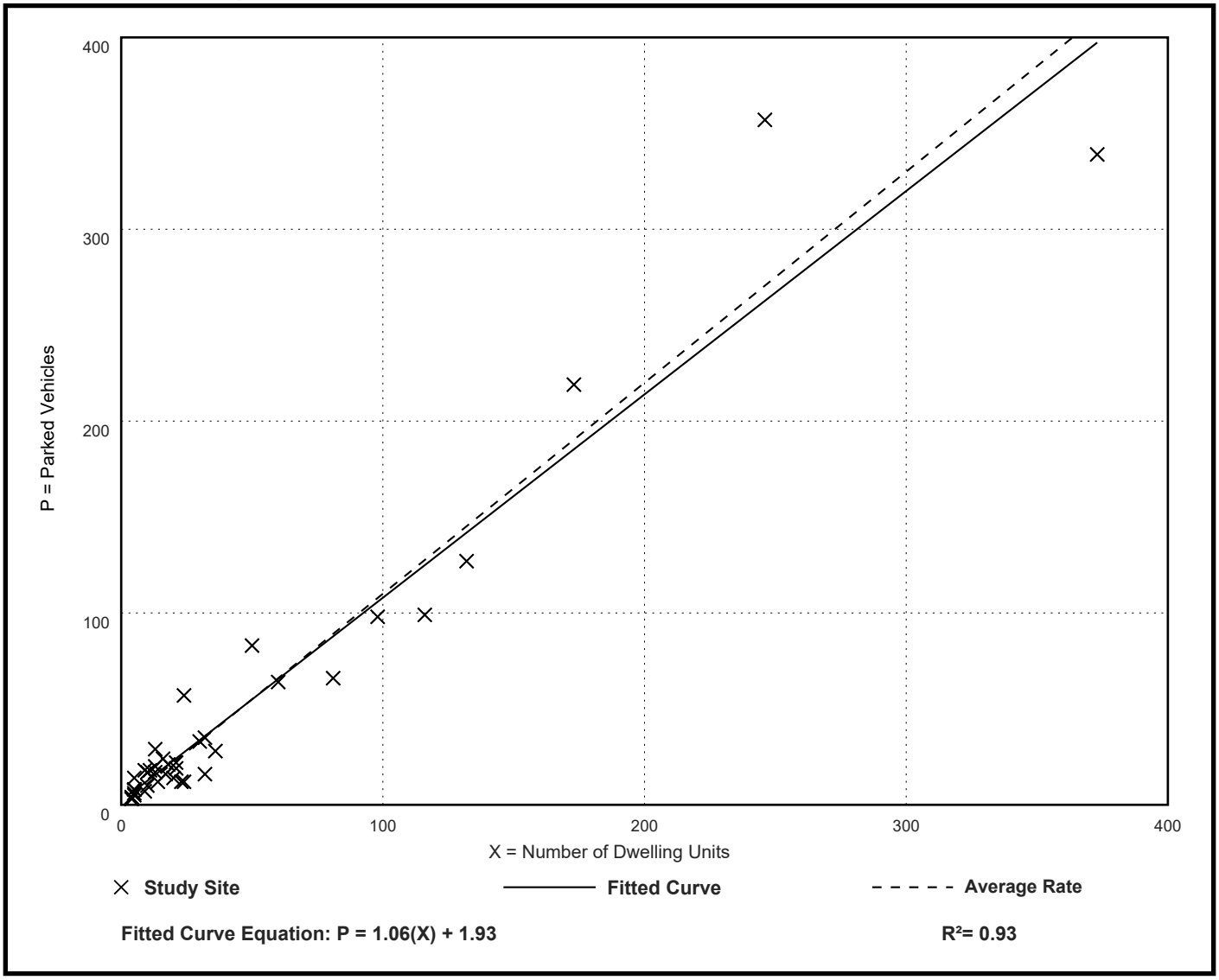
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

Peak Period Parking Demand vs: **Dwelling Units**
On a: **Weekday (Monday - Friday)**
Setting/Location: **Dense Multi-Use Urban**
Number of Studies: 39
Avg. Num. of Dwelling Units: 46

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.10	0.50 - 2.80	0.95 / 1.66	0.99 - 1.21	0.35 (32%)

Data Plot and Equation



Fitted Curve Equation: P = 1.06(X) + 1.93

R^2= 0.93

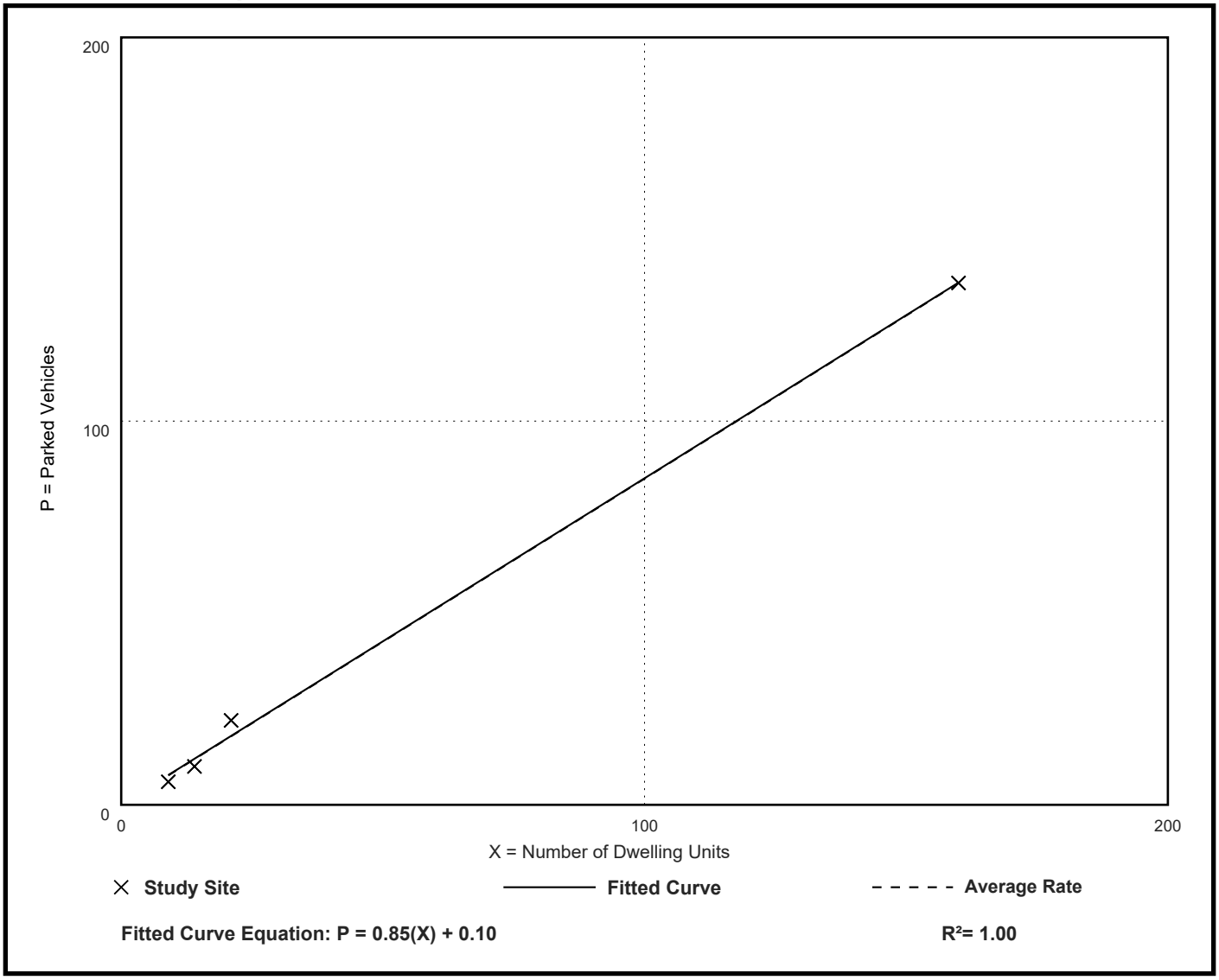
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

Peak Period Parking Demand vs: **Dwelling Units**
On a: **Saturday**
Setting/Location: **Dense Multi-Use Urban**
Number of Studies: 4
Avg. Num. of Dwelling Units: 51

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.85	0.67 - 1.05	0.70 / 1.05	***	0.09 (11%)

Data Plot and Equation



Fitted Curve Equation: P = 0.85(X) + 0.10

R^2= 1.00

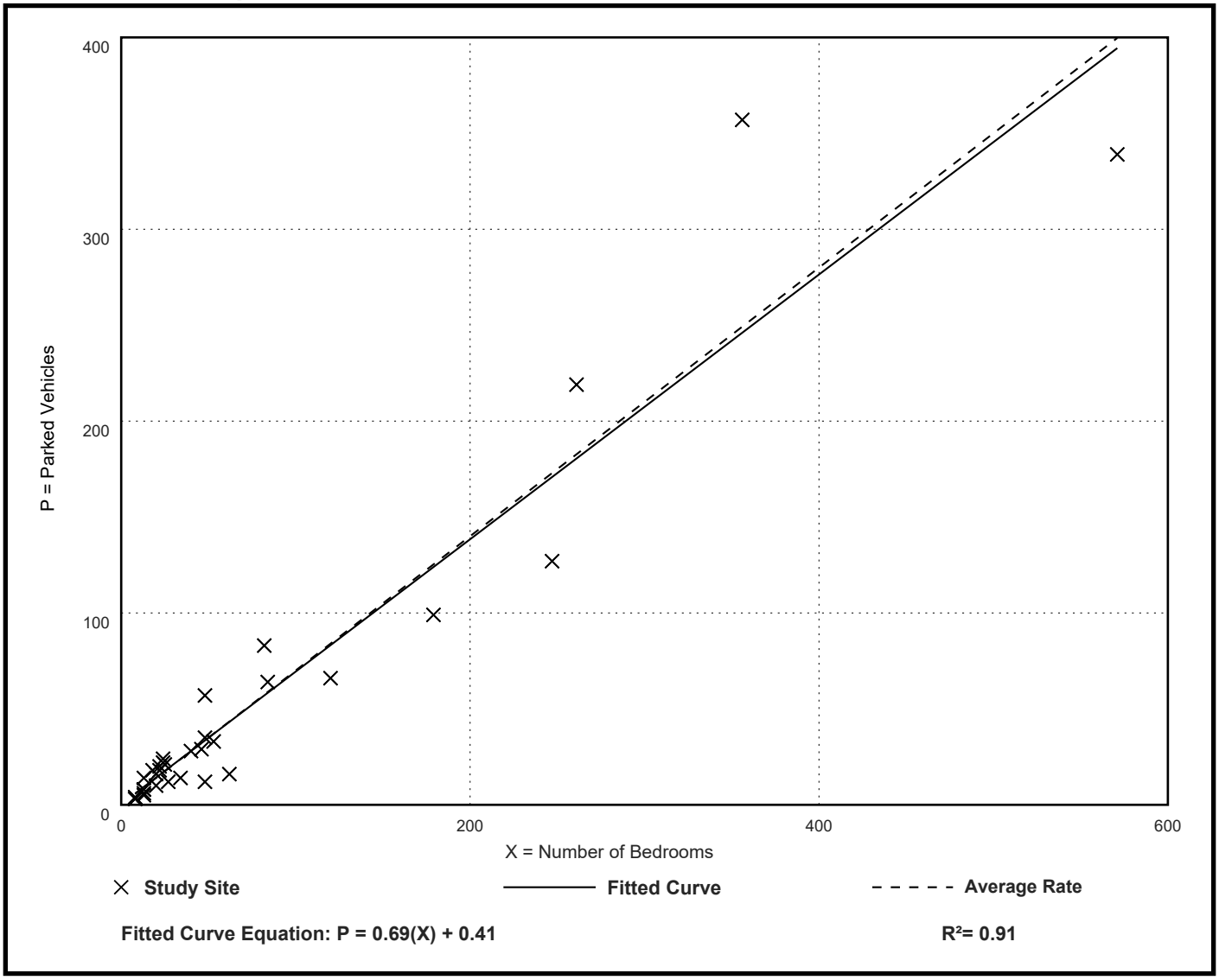
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

Peak Period Parking Demand vs: **Bedrooms**
On a: **Weekday (Monday - Friday)**
Setting/Location: **Dense Multi-Use Urban**
Number of Studies: 33
Avg. Num. of Bedrooms: 78

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.70	0.25 - 1.19	0.55 / 1.00	0.62 - 0.78	0.22 (31%)

Data Plot and Equation



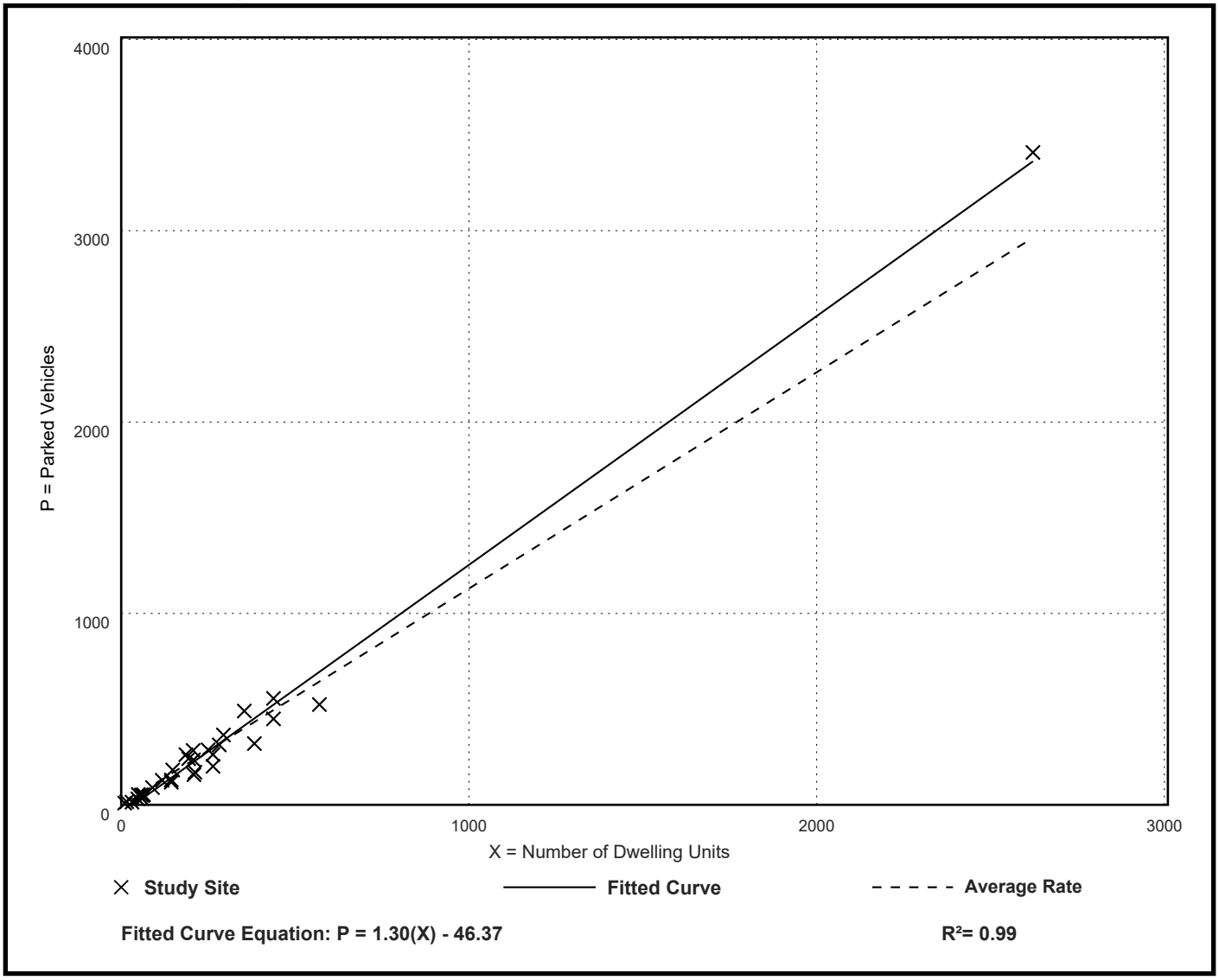
Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

Peak Period Parking Demand vs: Dwelling Units
On a: Weekday (Monday - Friday)
Setting/Location: General Urban/Suburban
Number of Studies: 31
Avg. Num. of Dwelling Units: 272

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.13	0.45 - 1.41	0.86 / 1.28	1.05 - 1.21	0.22 (19%)

Data Plot and Equation



Fitted Curve Equation: P = 1.30(X) - 46.37

R^2= 0.99

Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

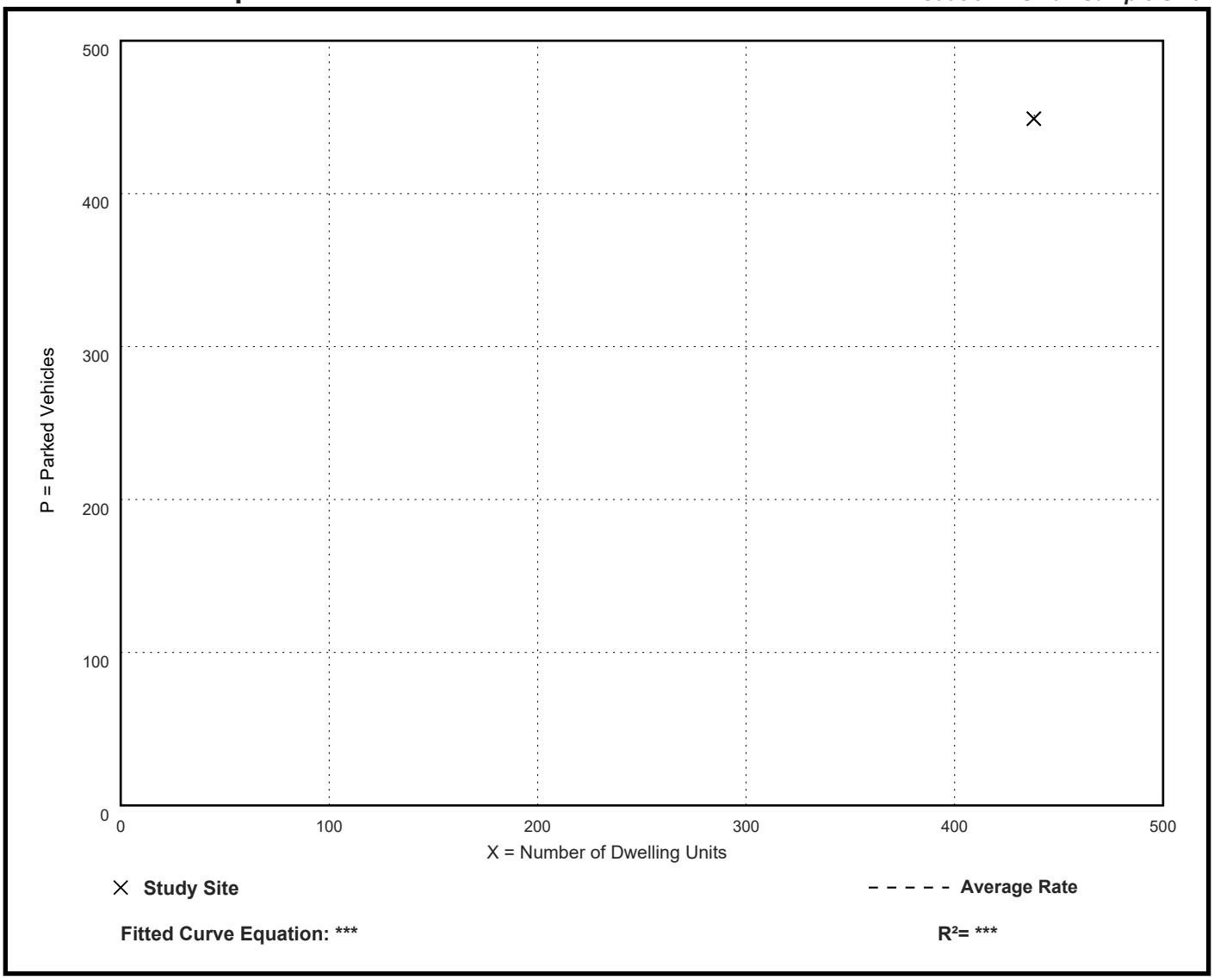
Peak Period Parking Demand vs: **Dwelling Units**
On a: **Saturday**
Setting/Location: **General Urban/Suburban**
Number of Studies: 1
Avg. Num. of Dwelling Units: 438

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.03	1.03 - 1.03	*** / ***	***	*** (***)

Data Plot and Equation

Caution – Small Sample Size



Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

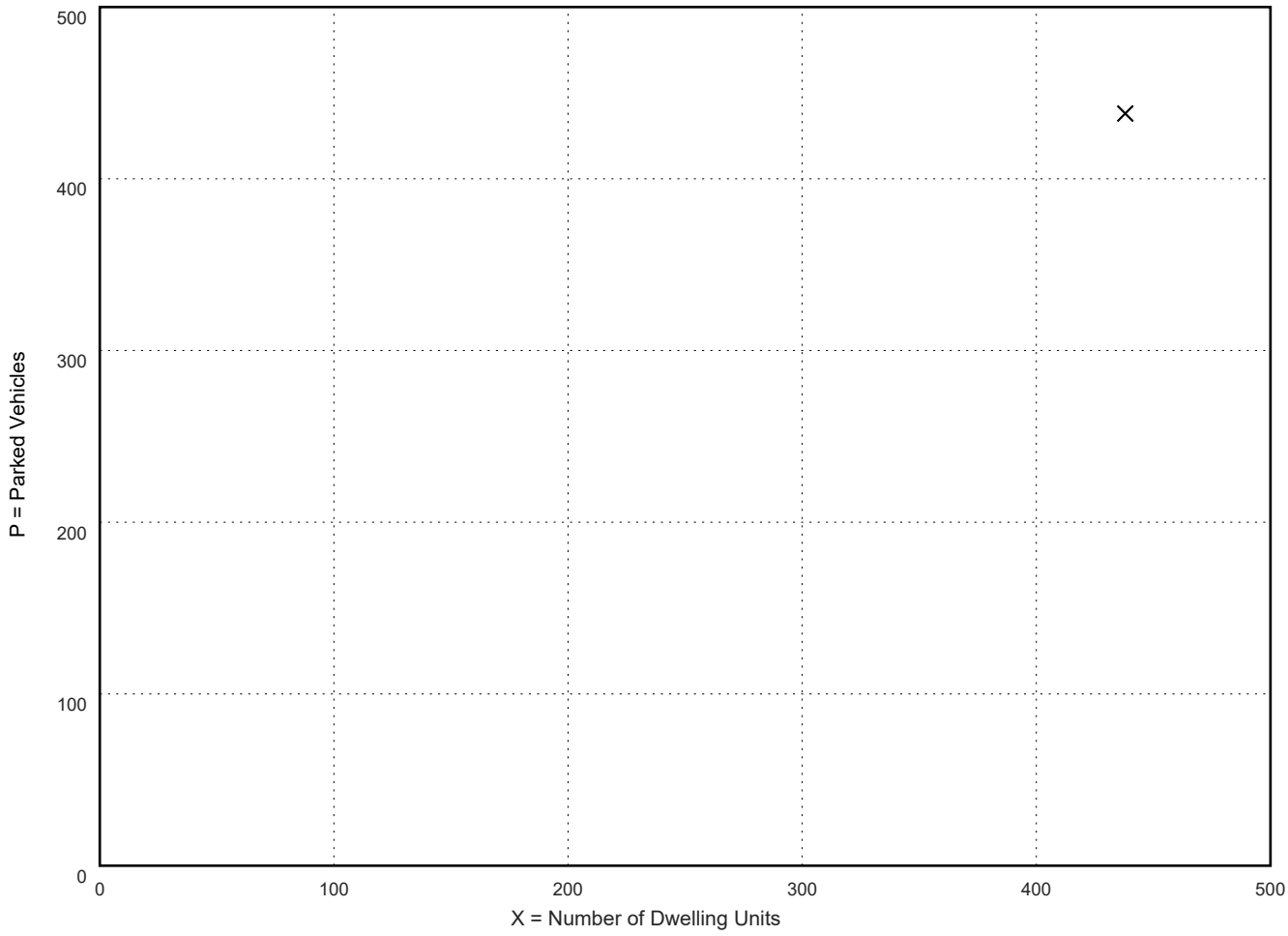
Peak Period Parking Demand vs: **Dwelling Units**
On a: **Sunday**
Setting/Location: **General Urban/Suburban**
Number of Studies: 1
Avg. Num. of Dwelling Units: 438

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.00	1.00 - 1.00	*** / ***	***	*** (***)

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: ***

R^2= ***

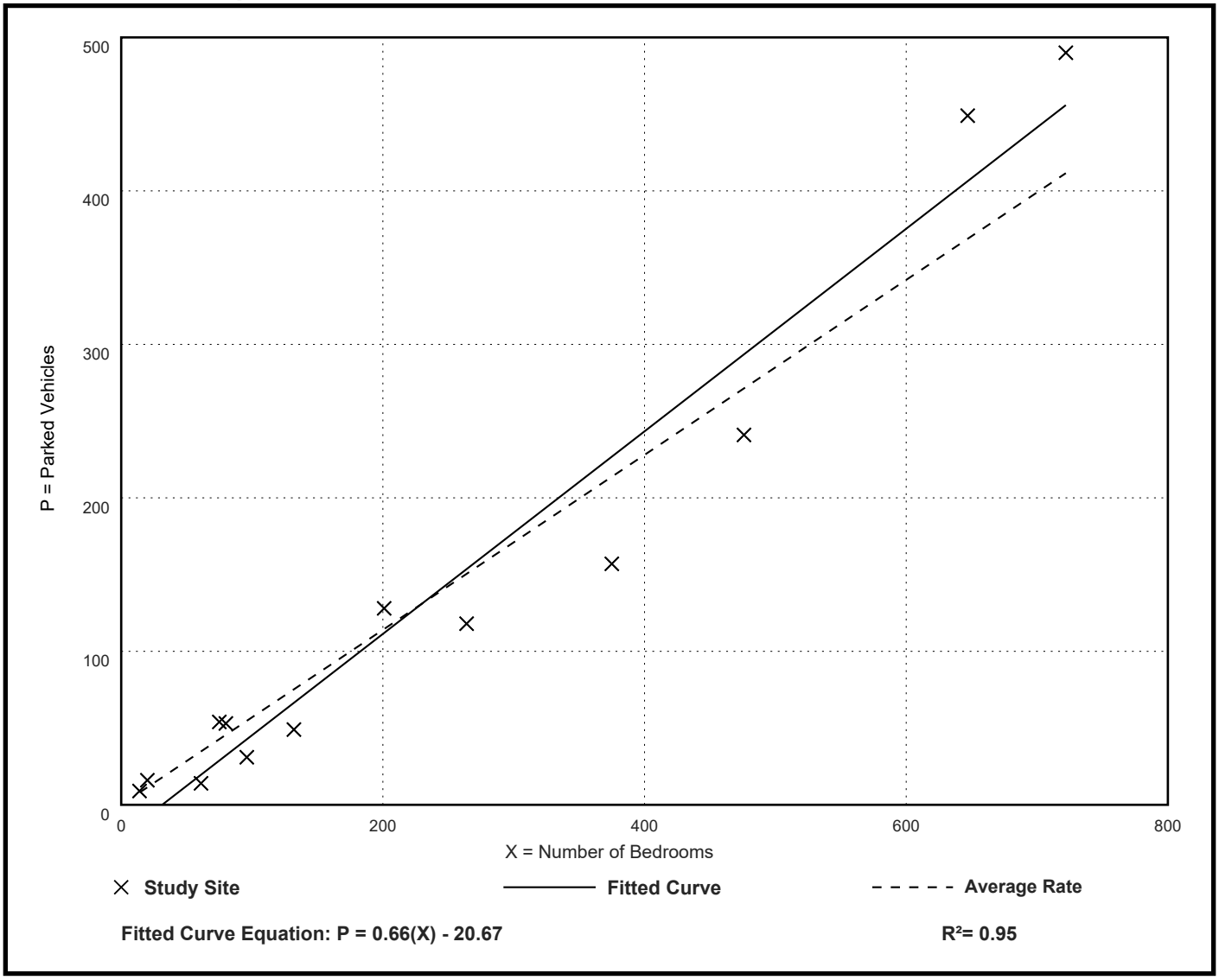
Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

Peak Period Parking Demand vs: Bedrooms
On a: Weekday (Monday - Friday)
Setting/Location: General Urban/Suburban
Number of Studies: 13
Avg. Num. of Bedrooms: 243

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.57	0.23 - 0.80	0.44 / 0.72	***	0.14 (25%)

Data Plot and Equation



Fitted Curve Equation: P = 0.66(X) - 20.67

R^2= 0.95

Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

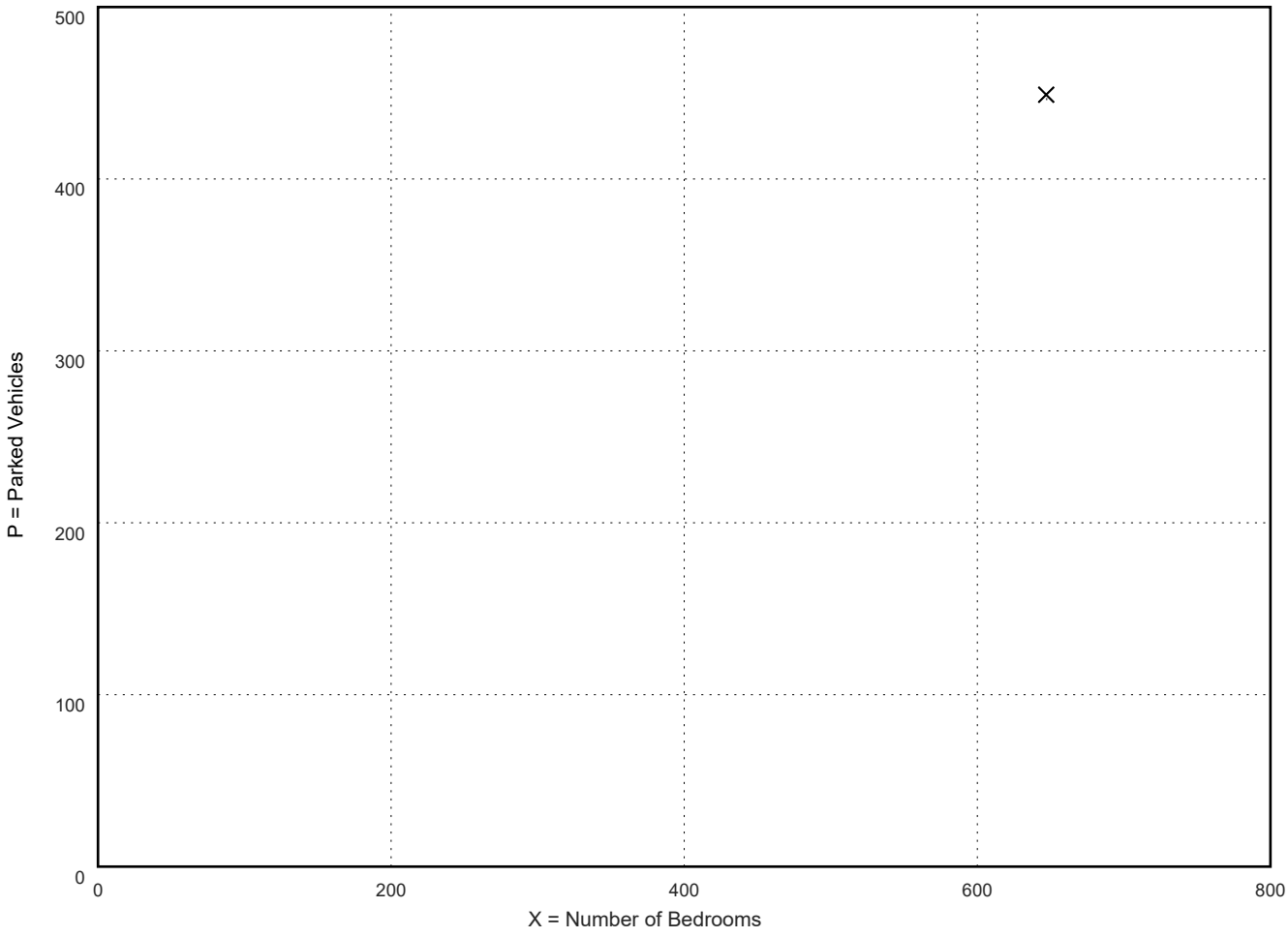
Peak Period Parking Demand vs: **Bedrooms**
On a: **Saturday**
Setting/Location: **General Urban/Suburban**
Number of Studies: 1
Avg. Num. of Bedrooms: 647

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.69	0.69 - 0.69	*** / ***	***	*** (***)

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: ***

R^2= ***

Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

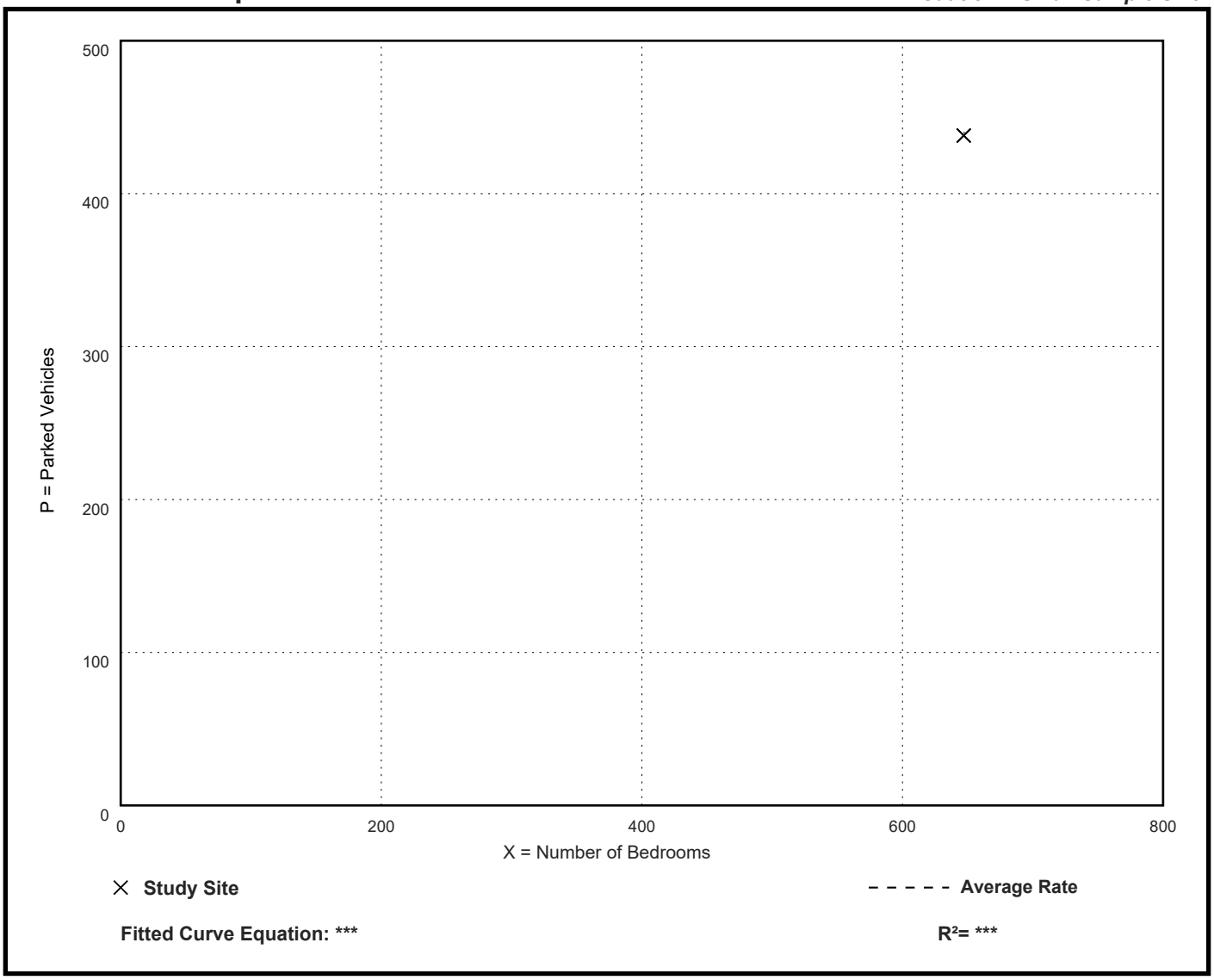
Peak Period Parking Demand vs: Bedrooms
On a: Sunday
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Bedrooms: 647

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.68	0.68 - 0.68	*** / ***	***	*** (***)

Data Plot and Equation

Caution – Small Sample Size



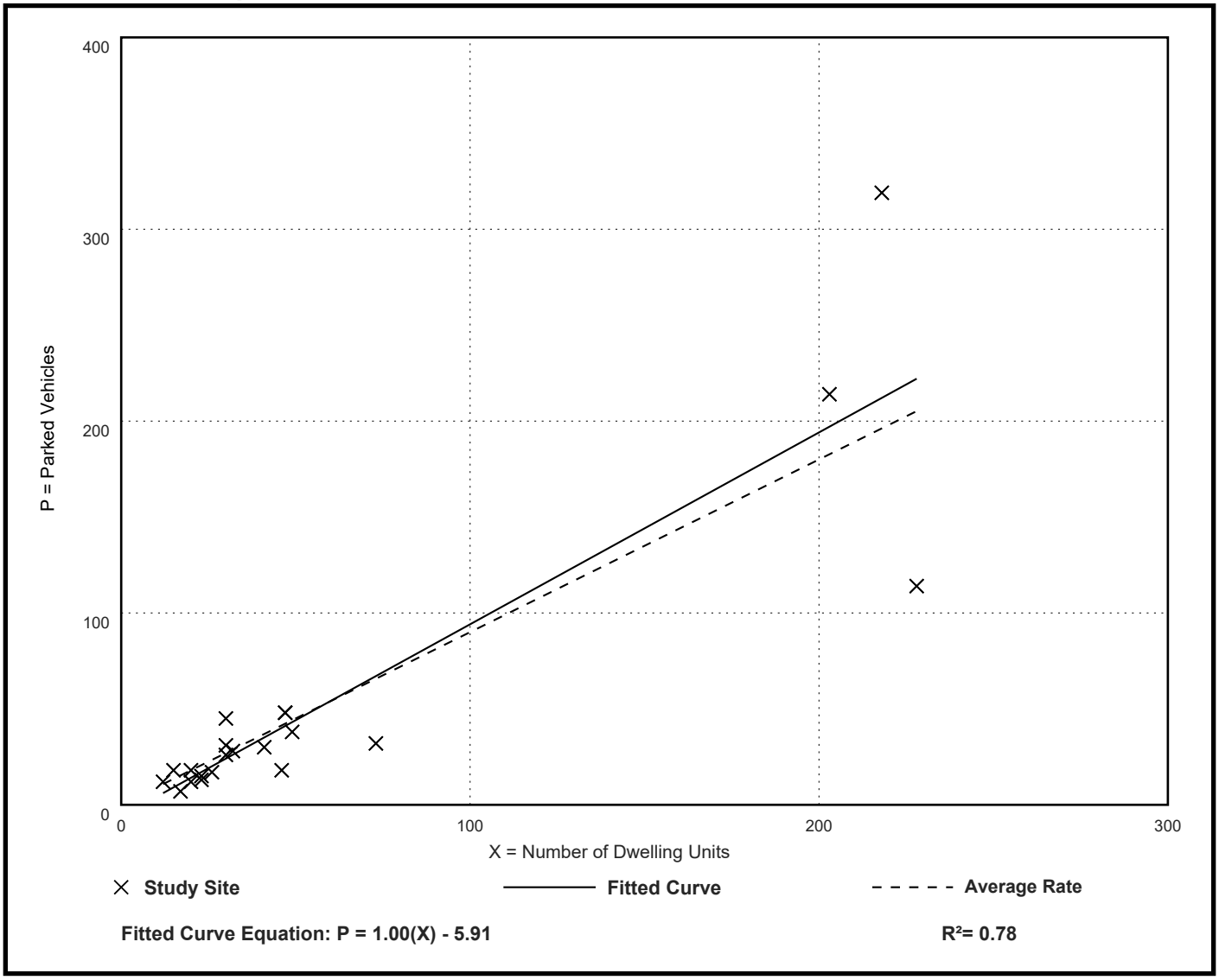
Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

Peak Period Parking Demand vs: **Dwelling Units**
On a: **Weekday (Monday - Friday)**
Setting/Location: **Dense Multi-Use Urban**
Number of Studies: 21
Avg. Num. of Dwelling Units: 59

Peak Period Parking Demand per Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.90	0.39 - 1.50	0.65 / 1.16	0.74 - 1.06	0.38 (42%)

Data Plot and Equation



Fitted Curve Equation: P = 1.00(X) - 5.91

R^2= 0.78

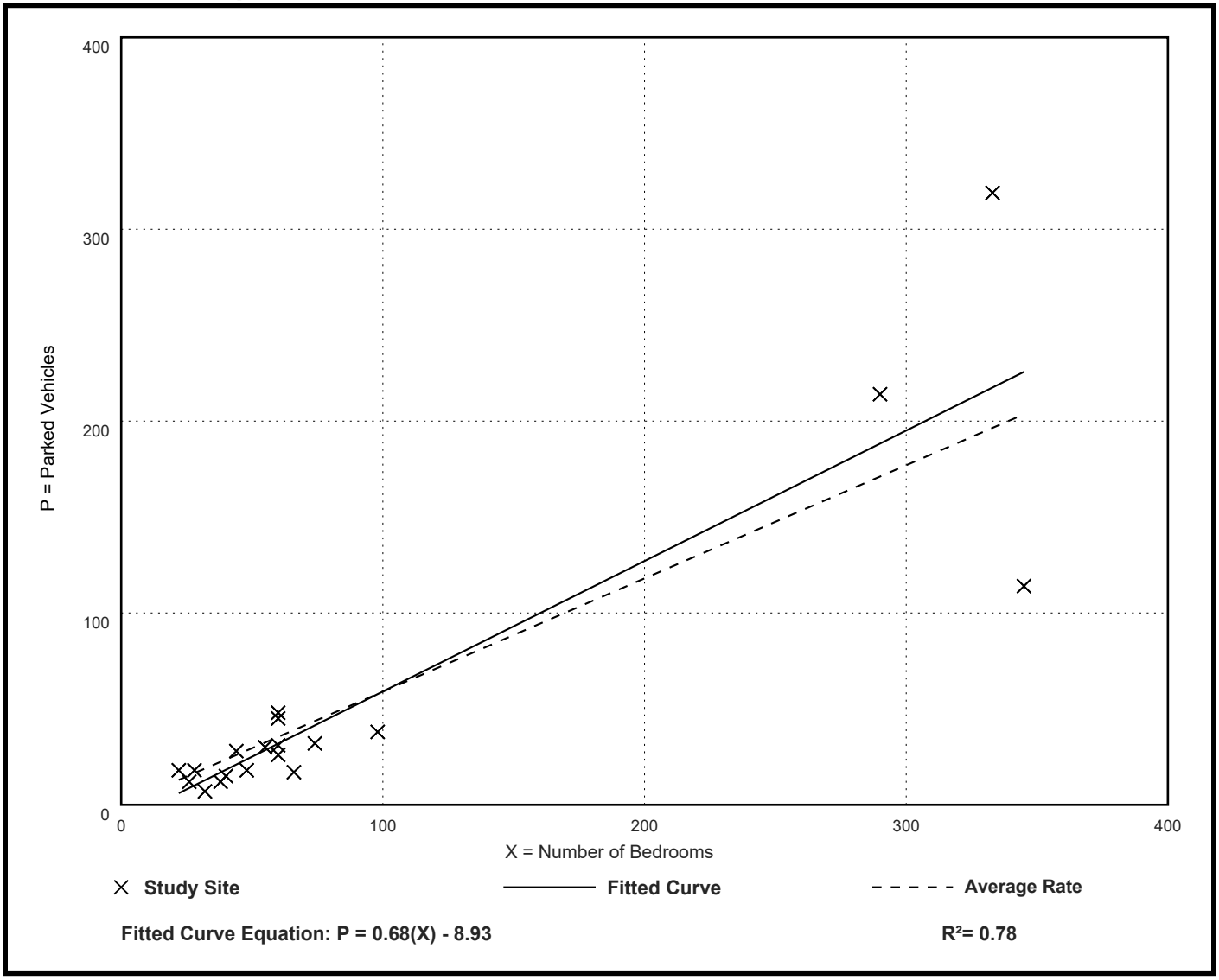
Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

Peak Period Parking Demand vs: **Bedrooms**
On a: **Weekday (Monday - Friday)**
Setting/Location: **Dense Multi-Use Urban**
Number of Studies: 19
Avg. Num. of Bedrooms: 94

Peak Period Parking Demand per Bedroom

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
0.59	0.22 - 0.96	0.38 / 0.80	***	0.25 (42%)

Data Plot and Equation



Land Use: 822 Strip Retail Plaza (<40k)

Description

A strip retail plaza is an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. Each study site in this land use has less than 40,000 square feet of gross leasable area (GLA). Because a strip retail plaza is open-air, the GLA is the same as the gross floor area (GFA) of the building.

The 40,000 square feet GLA threshold between shopping plaza and strip retail plaza (Land Use 822) is based on an examination of the parking demand database. All shopping plazas with a supermarket as their anchor in the database are larger than 40,000 square feet GLA.

Time-of-Day Distribution for Parking Demand

The following table presents a time-of-day distribution of parking demand on a Monday–Thursday (five study sites), a Friday (two study sites), and a Saturday (four study sites).

Hour Beginning	Percent of Peak Parking Demand		
	Monday–Thursday	Friday	Saturday
12:00–4:00 a.m.	—	—	—
5:00 a.m.	—	—	—
6:00 a.m.	—	—	—
7:00 a.m.	—	—	—
8:00 a.m.	19	19	—
9:00 a.m.	33	40	38
10:00 a.m.	47	44	55
11:00 a.m.	55	52	66
12:00 p.m.	89	96	85
1:00 p.m.	100	96	100
2:00 p.m.	73	84	96
3:00 p.m.	73	52	79
4:00 p.m.	66	50	66
5:00 p.m.	70	63	64
6:00 p.m.	75	49	67
7:00 p.m.	70	100	70
8:00 p.m.	54	94	70
9:00 p.m.	48	73	51
10:00 p.m.	—	—	—
11:00 p.m.	—	—	—

Additional Data

The average parking supply ratios for the study sites with parking supply information are the following:

- 5.7 spaces per 1,000 square feet GLA (24 sites) in a general urban/suburban setting
- 3.3 spaces per 1,000 square feet GLA (3 sites) in a dense multi-use urban setting

The average peak parking occupancy is 50 percent at the general urban/suburban sites and 76 percent at the dense multi-use urban sites.

The sites were surveyed in the 1990s, the 2010s, and the 2020s in Alberta (CAN), British Columbia (CAN), California, Colorado, Kansas, Maine, Manitoba (CAN), Maryland, Michigan, Minnesota, Missouri, New York, Texas, Virginia, and Washington.

Future data submissions should attempt to provide information on the composition of each study site (types and number of stores, restaurants, or other tenants within the shopping center).

Source Numbers

89, 209, 219, 297, 511, 601, 605, 606, 618, 619, 621, 635

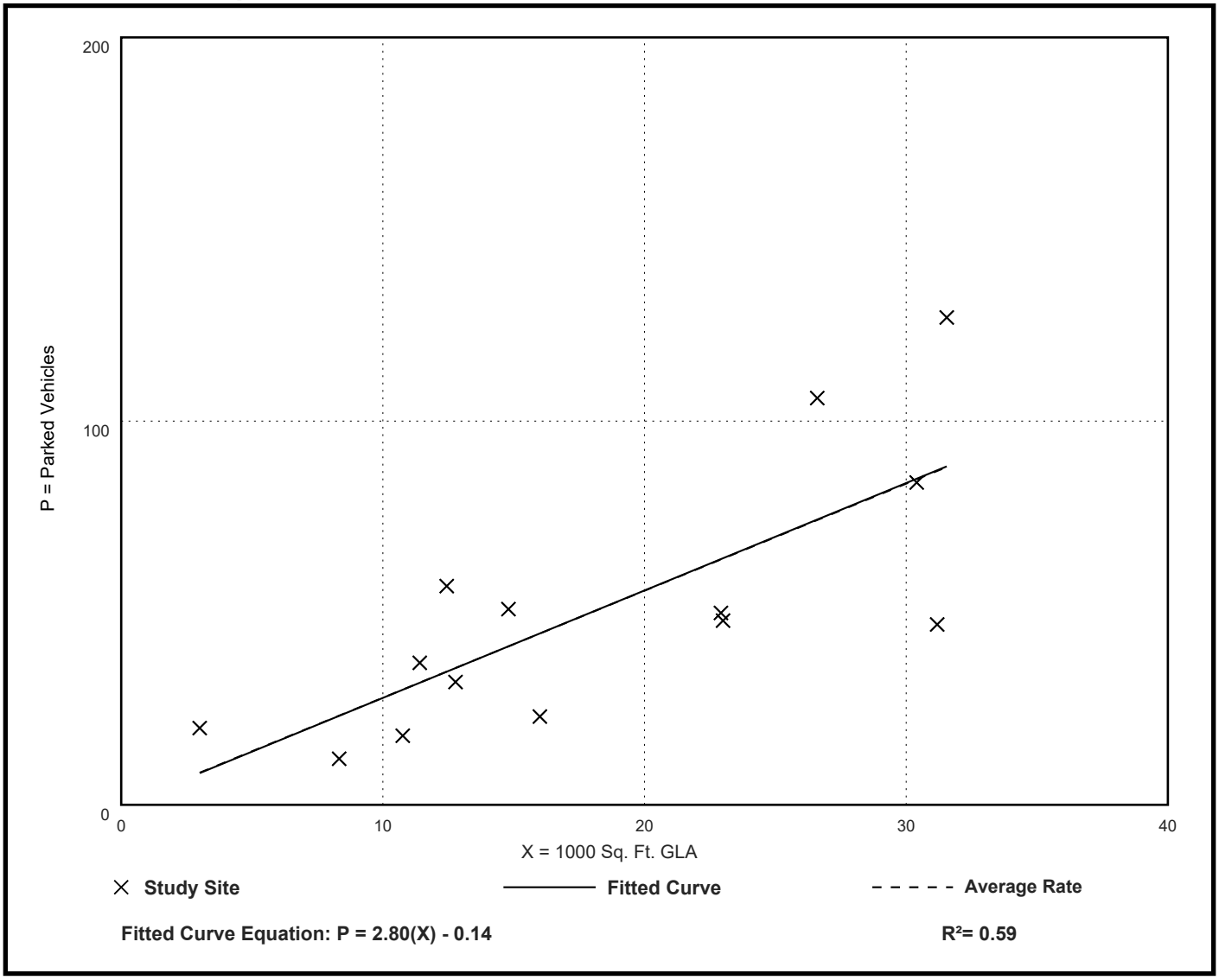
Strip Retail Plaza (< 40k)
(822)

Peak Period Parking Demand vs: 1000 Sq. Ft. GLA
On a: Weekday (Monday - Thursday)
Setting/Location: General Urban/Suburban
Number of Studies: 14
Avg. 1000 Sq. Ft. GLA: 18

Peak Period Parking Demand per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
2.79	1.44 - 6.67	2.07 / 4.44	***	1.14 (41%)

Data Plot and Equation



Fitted Curve Equation: P = 2.80(X) - 0.14

R^2= 0.59

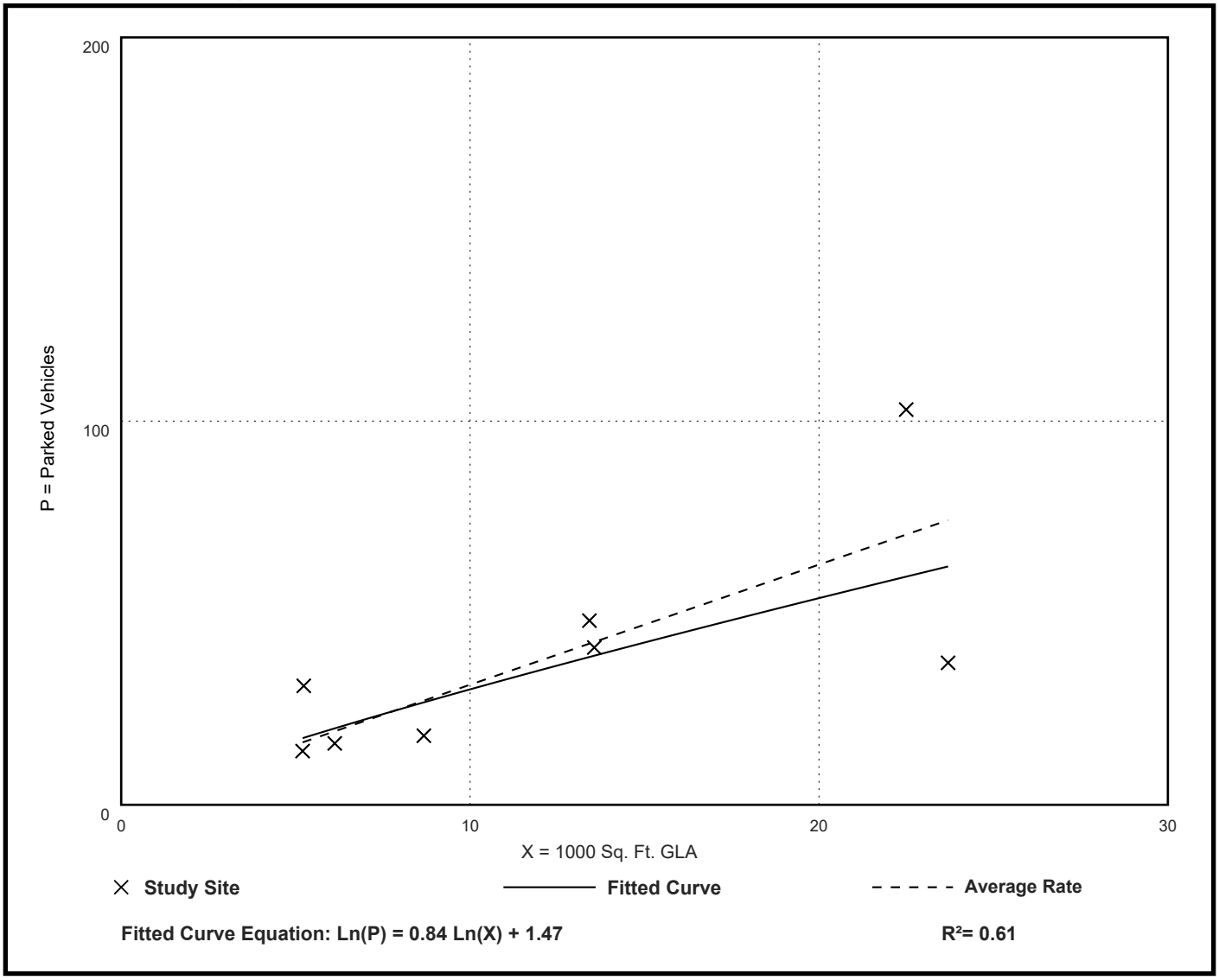
Strip Retail Plaza (< 40k)
(822)

Peak Period Parking Demand vs: 1000 Sq. Ft. GLA
On a: Friday
Setting/Location: General Urban/Suburban
Number of Studies: 8
Avg. 1000 Sq. Ft. GLA: 12

Peak Period Parking Demand per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
3.13	1.56 - 5.93	2.60 / 5.45	***	1.37 (44%)

Data Plot and Equation



Fitted Curve Equation: Ln(P) = 0.84 Ln(X) + 1.47

R^2= 0.61

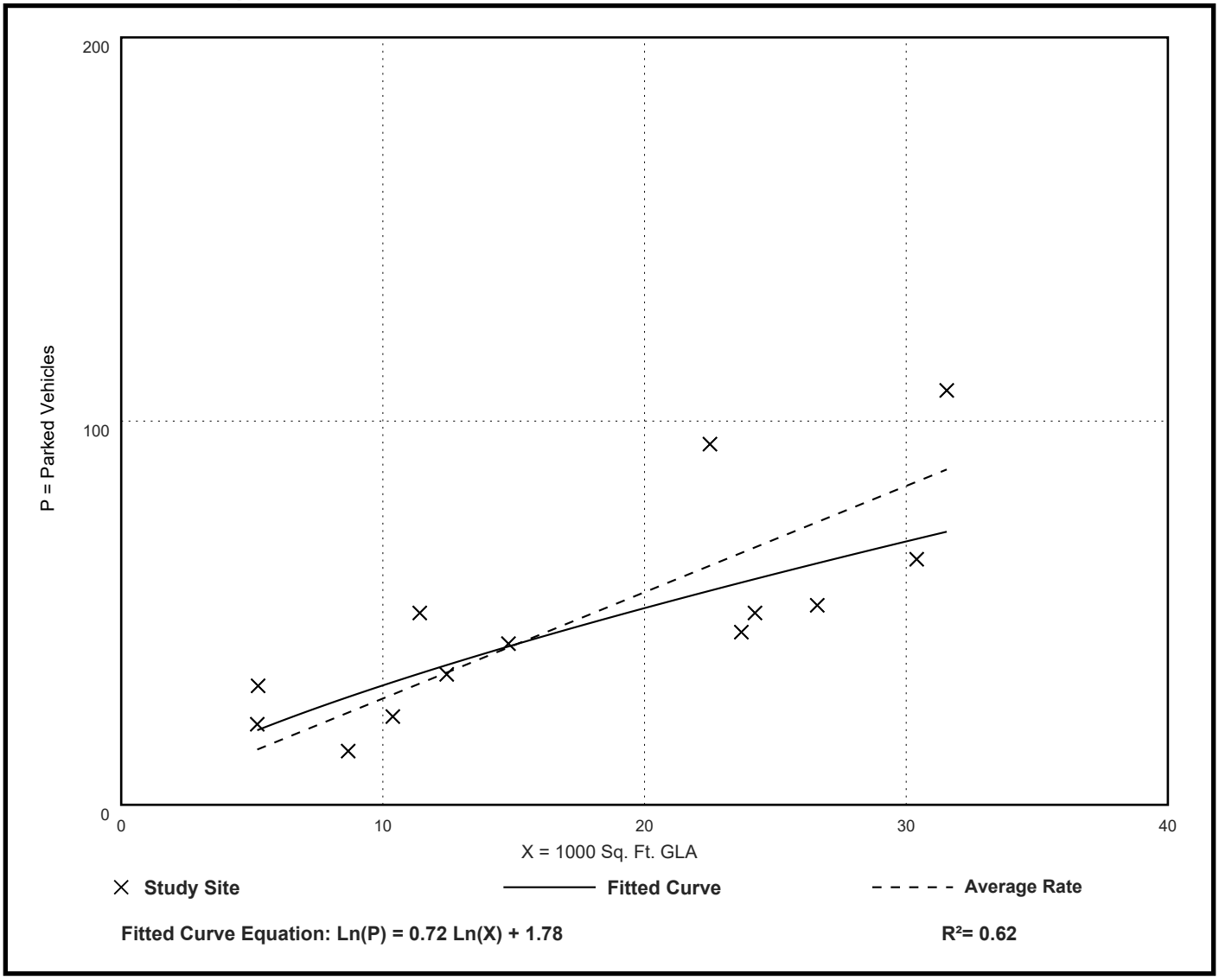
Strip Retail Plaza (< 40k)
(822)

Peak Period Parking Demand vs: 1000 Sq. Ft. GLA
On a: Saturday
Setting/Location: General Urban/Suburban
Number of Studies: 13
Avg. 1000 Sq. Ft. GLA: 17

Peak Period Parking Demand per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
2.77	1.61 - 5.93	2.09 / 4.36	***	1.03 (37%)

Data Plot and Equation



Fitted Curve Equation: Ln(P) = 0.72 Ln(X) + 1.78

R^2= 0.62

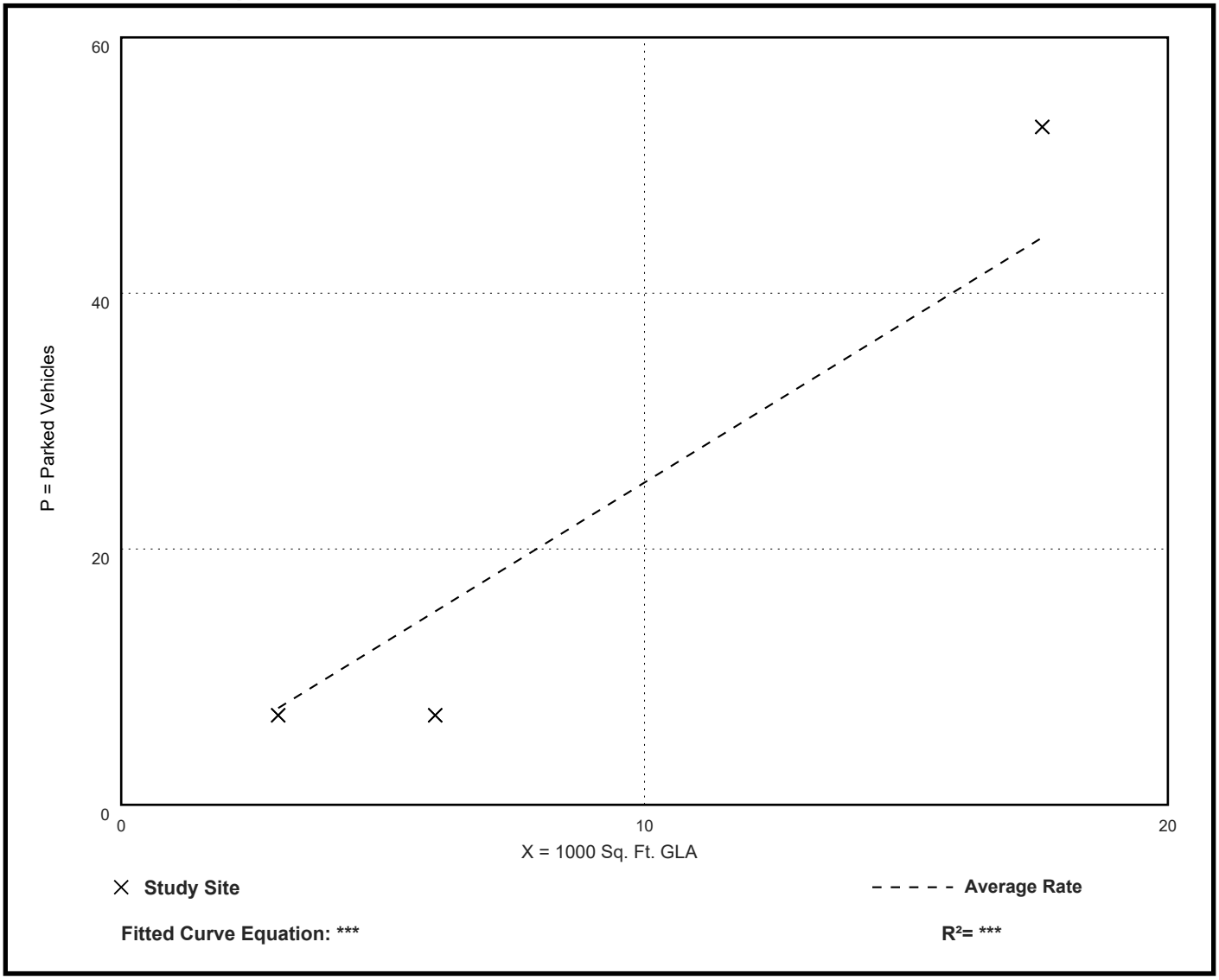
Strip Retail Plaza (< 40k)
(822)

Peak Period Parking Demand vs: 1000 Sq. Ft. GLA
On a: Weekday (Monday - Thursday)
Setting/Location: Dense Multi-Use Urban
Number of Studies: 3
Avg. 1000 Sq. Ft. GLA: 8.9

Peak Period Parking Demand per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
2.52	1.17 - 3.01	1.54 / 3.01	***	0.93 (37%)

Data Plot and Equation



Strip Retail Plaza (< 40k)
(822)

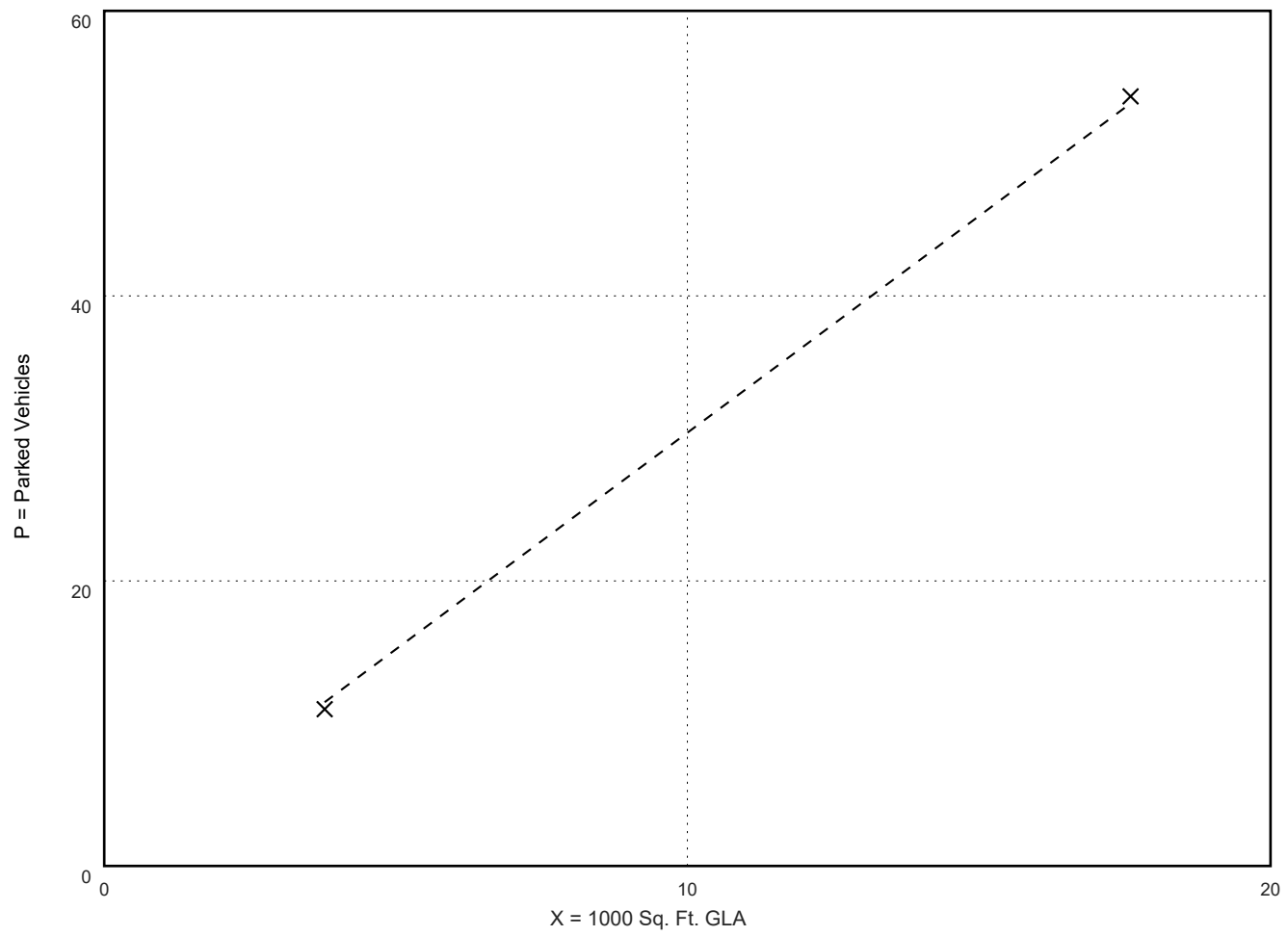
Peak Period Parking Demand vs: 1000 Sq. Ft. GLA
On a: Saturday
Setting/Location: Dense Multi-Use Urban
Number of Studies: 2
Avg. 1000 Sq. Ft. GLA: 11

Peak Period Parking Demand per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
3.04	2.91 - 3.07	*** / ***	***	*** (***)

Data Plot and Equation

Caution – Small Sample Size



Fitted Curve Equation: *

R^2= *

Colliers Engineering & Design

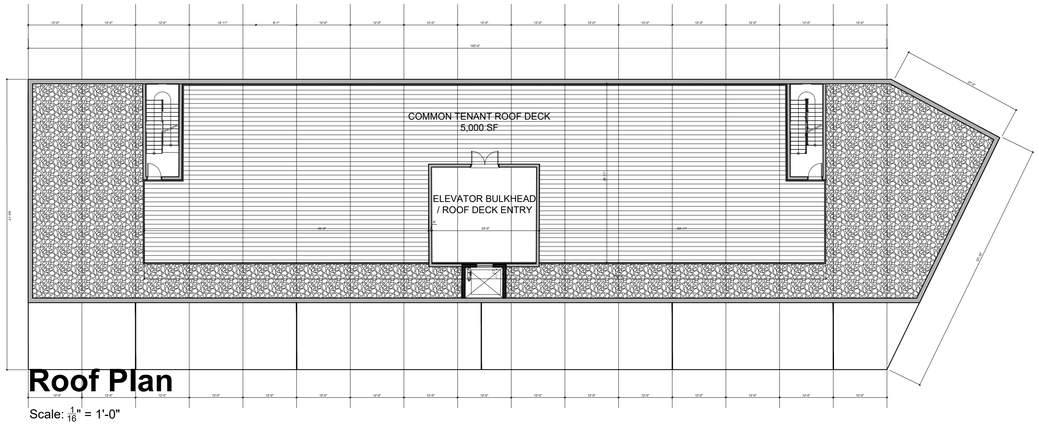
Colliers Engineering & Design is a trusted provider of multi-discipline engineering, design and consulting services providing customized solutions for public and private clients through a network of offices nationwide.

For a full listing of our office locations, please visit colliersengineering.com

1 877 627 3772

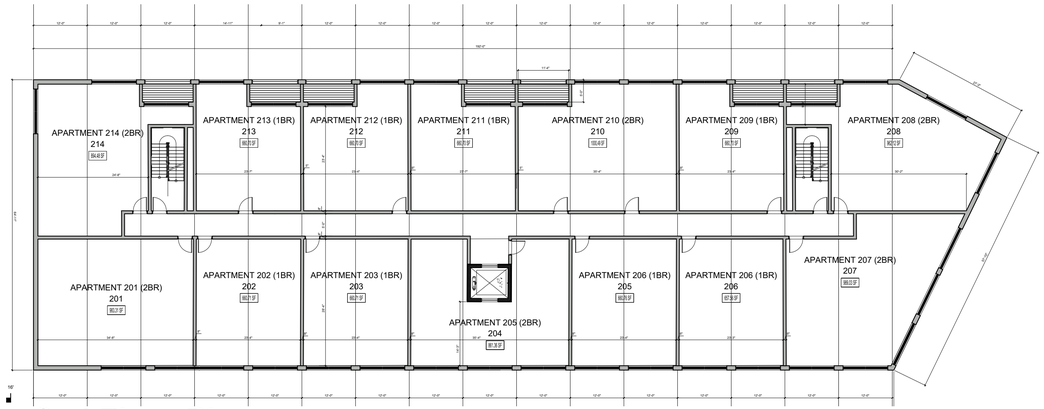
Civil/Site • Traffic/Transportation • Governmental • Survey/Geospatial
Infrastructure • Geotechnical/Environmental • Telecommunications • Utilities/Energy

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	01/29/24	REVISED PER PLANNING BOARD COMMENTS	AJS



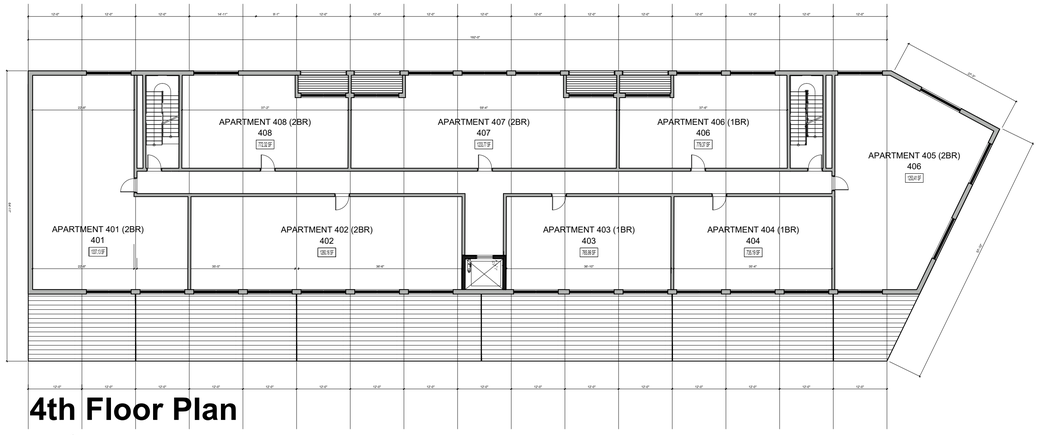
Roof Plan

Scale: $\frac{1}{16}$" = 1'-0"



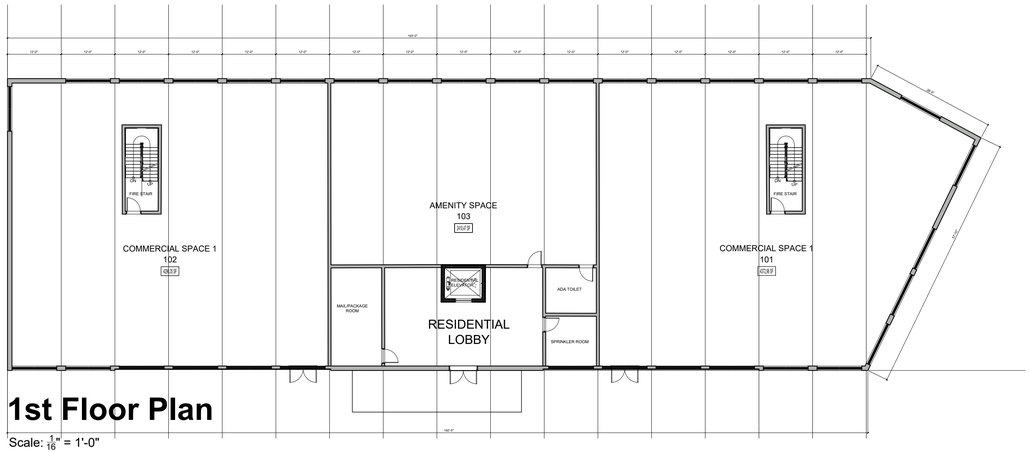
2nd Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"



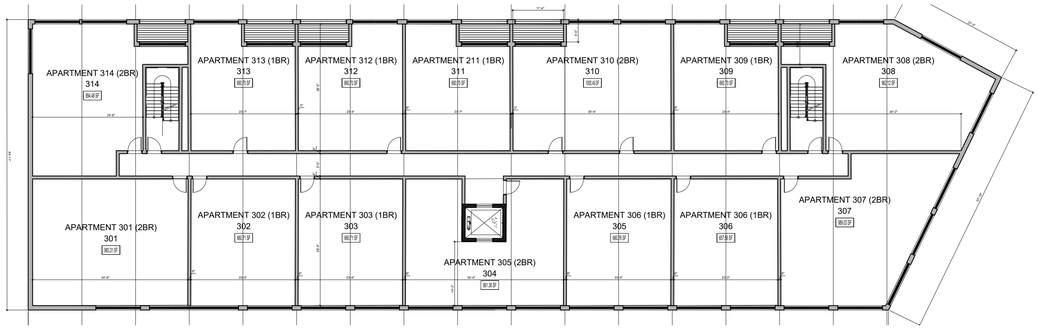
4th Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"



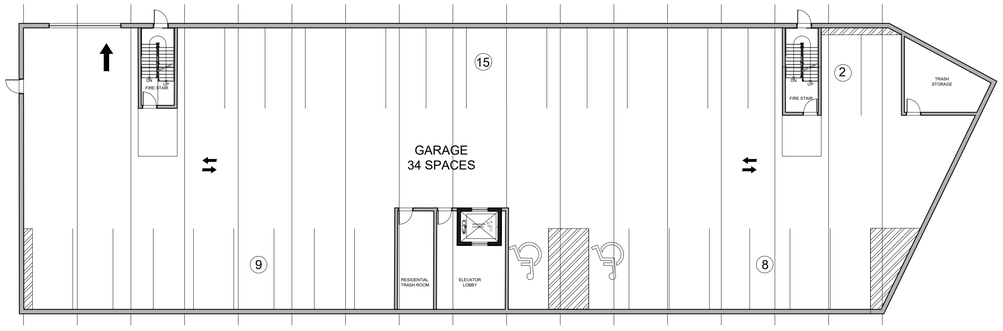
1st Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"



3rd Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"



Garage Plan

Scale: $\frac{1}{16}$" = 1'-0"

Site Plan Application

Sheet A-101 - Building Plans - Beekman Street

Owner / Applicant:
Beekman Arts Center LLC
(Tax ID: 5955-19-706012)
268 Main Street
Beacon, NY 12508

Owner / Applicant:
Bayridge Studios LLC
(Tax ID: 5954-26-781983 & 5954-26-689990)
268 Main Street
Beacon, NY 12508

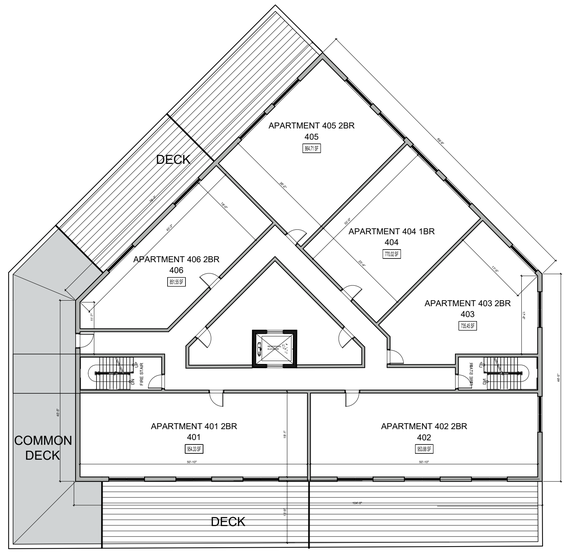
Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

Site / Civil Engineer:
Colliers Engineering & Design
555 Hudson Valley Avenue - Suite 101
New Windsor, NY 12553

Surveyor:
Automated Construction Enhanced Solutions, Inc.
1229 Route 300 - Suite 4
Newburgh, NY 12550

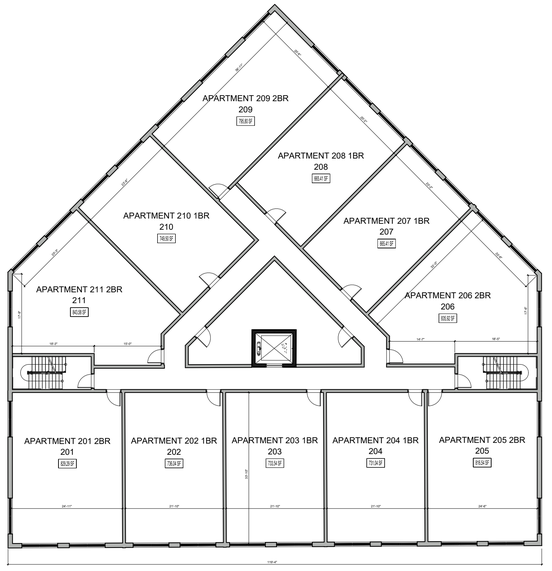
45 Beekman Street
Beacon, New York
Scale: 1" = 30'
November 28, 2023

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	01/29/24	REVISED PER PLANNING BOARD COMMENTS	AJS



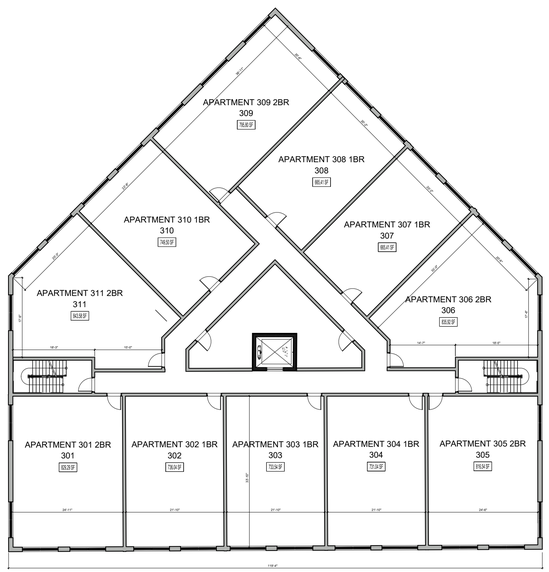
4th Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"



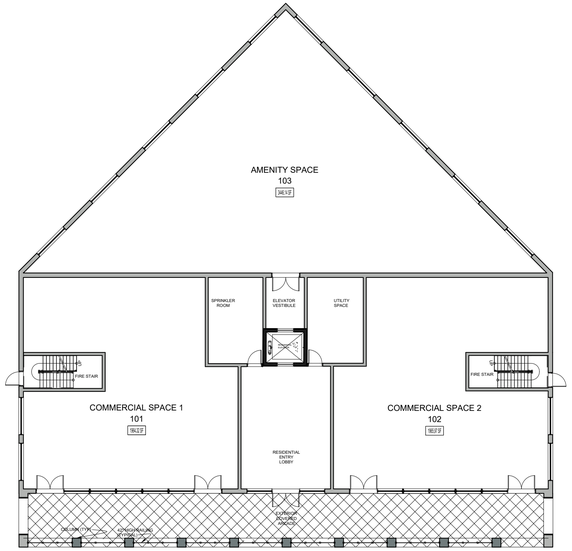
2nd Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"



3rd Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"



1st Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"

Site Plan Application

Sheet A-100 - Building Plans - High Street

Owner / Applicant:
Beekman Arts Center LLC
(Tax ID: 5955-19-706012)
268 Main Street
Beacon, NY 12508

Owner / Applicant:
Bayridge Studios LLC
(Tax ID: 5954-26-781983 & 5954-26-689990)
268 Main Street
Beacon, NY 12508

Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

Site / Civil Engineer:
Colliers Engineering & Design
555 Hudson Valley Avenue - Suite 101
New Windsor, NY 12553

Surveyor:
Automated Construction Enhanced Solutions, Inc.
1229 Route 300 - Suite 4
Newburgh, NY 12550

45 Beekman Street
Beacon, New York
Scale: 1" = 30'
November 28, 2023

LANC & TULLY
Engineering and Surveying, P.C.

February 12, 2024

Mr. John Gunn
Beacon Planning Board Chair
City of Beacon
1 Municipal Plaza
Beacon, NY 12508

RE: 45 Beekman Street
Mixed-Use Building
Tax Nos. 5955-19-706012, 5954-26-689990 & 781983
City of Beacon

Dear Mr. Gunn:

My office has received the following regarding a mixed-use building to be located at 152-158 Fishkill Avenue:

- Correspondence dated January 20, 2024, from Cuddy & Feder.
- Application for site plan approval, dated November 21, 2023.
- Full Environmental Assessment Form dated January 30, 2024
- Correspondence dated January 26, 2024, from Aryeh Siegel.
- Correspondence dated January 30, 2024, from Colliers.
- Correspondence dated January 25, 2024, from the City's Water & Sewer Superintendent.
- Report titled "Preliminary Stormwater Pollution Prevention Plan – 45 Beekman Street Mixed-Use Development", dated January 30, 2024, as prepared by Colliers.
- Memorandum dated January 31, 2024, from Colliers regarding the Traffic & Parking Study.
- Traffic & Parking Study titled "45 Beekman Street & High Street", with a revision date of January 26, 2024, as prepared by Colliers Engineering & Design.
- Plans titled "Building Plans – 45 Beekman Street", with the latest revision date of January 29, 2024, as prepared by Aryeh Siegel, Architect.
- Plan set titled "Preliminary Site Plan for Beekman Arts Center LLC & Bay Ridge Studios, LLC", dated January 30, 2024, as prepared by Colliers and consisting of 18 sheets in the plan set.

The proposed project entails the demolition of the existing structure located at the intersection of North Avenue & Beekman Street, and the merging of the three (3) parcels into a single parcel; and the construction of two (2) mixed-use buildings. Both buildings are proposed to have commercial space, tenant amenity space on the 1st floor and dwelling units on the 2nd through 4th floors. The recently submitted architectural floor plans show a total of 64 dwelling

units consisting of 32 one-bedroom units and 32 two-bedroom units, which is a reduction of 1-dwelliing unit and 1-bedroom from the previous submission. The project site, with the lots merged, has an area of 1.78± acres and is located in the L (Linkage) Zone, with a small portion of the lot along North Avenue being located in the R1-7.5 Zone and the vacant parcel along High Street being located in the Historic District and Landmark Overly (HDLO) district. The proposed uses, commercial and residential, are permitted uses within the L Zone.

Based on our review of the above documents and plans, and noting that only a sketch plan has been submitted at this time, we would like to offer the following comments:

General Comments:

1. A lot-line merger plan shall be prepared for the project. ***Applicant notes that a plan is being prepared and will be submitted with a future submission.***

2. The applicant's consultant shall conduct an Inflow & Infiltration (I&I) Study of the existing site and building and provide a certified written report to the City of Beacon of the findings. Possible cross-connections to the City's sanitary sewer collection system include roof-leaders, sump pumps, existing site drains, etc. shall be identified. If any cross-connections are found, the report shall include these findings along with the volume of I&I being introduced into the sanitary sewer collection system, and the proposed remediation for the cross-connection(s) found. ***Applicant notes that the I&I study will be prepared and submitted with a future submission.***

3. A copy of the survey prepared for the parcels that make up the project site shall be submitted. The survey shall be signed and sealed. ***Applicant notes that a copy of the survey shall be submitted with a future submission.***

4. Sheet 2 of 5 includes a note in several locations stating "All property lines have been adjusted to be a minimum of 25' from the center line of the road". The plan should show the property lines as to where they currently exist without adjustment, and an offer of dedication to the City of Beacon be prepared for those areas as to where the property line is to be adjusted so that it is 25-feet from the centerline of the road. ***Applicant notes that the Project Surveyor will provide clarification to the Board in a future submission.***

5. Additional elevation views should be provided with views from Route 9D and Tompkins Avenue. The current elevation views that have been provided should be labeled as to what side of the building is being viewed (north, east, etc.). ***Applicant notes that the architect is developing additional elevations as requested and will provide them in a future submission.***

6. A stormwater maintenance and access agreement shall be prepared for the project and provided for review.

7. As the project progresses, the project engineer shall prepare a construction cost estimate for all public improvements and submitted for review.

8. The submitted architectural floor plans, and those of the engineering drawings should be coordinated with the number of bedrooms and commercial area. The water & sewer usage should also be adjusted based upon the bedroom count and commercial floor area.

Sheet 1 of 18:

1. The "General Information" notes on the Cover sheet shall include a note stating "Prior to commencement of construction activities, a pre-construction meeting shall be conducted in accordance with MS4s GP-0-24-001. Present at the meeting shall be the MS4 Operator, Contractor(s) responsible for implementing the SWPPP for construction activity, and qualified stormwater inspector for the project."

Sheet 2 of 18:

1. Based upon notes that appear on the plan, additional subsurface utility information for the project is still being acquired. The applicant should note the status of the data collection, and when the data collection should be completed by.

2. The size and material of each of the utility lines (sewer, water, and drainage) in the roads adjacent to the project should be provided on the plan.

3. Some utilities shown are incomplete as to showing where they run to. Example being the sewer line running down Beekman Street.

4. Some of the utility labels and notes should be adjusted, as they have been cut off in the lower left-hand side of the sheet.

Sheets 4, 5 & 6 of 18:

1. The proposed grading behind the double tier retaining wall system should be reviewed and adjusted as necessary.

2. Grading appears to be incomplete to the north and west of the parking lot located behind Building No. 2. This should be further reviewed by the project engineer.

Sheets 7 & 8 of 18:

1. The plans shall show the location of roof leaders for Building Nos. 1 and 2, and where they run to.

2. The applicant's engineer should consider connection storm drainage manhole MH S-2 directly to the storm drainage line in Beekman Street. This would eliminate the need for the additional storm drainage piping and structures running along the front of Building No. 2. This would also allow for the installation of some landscaping along the front of the building.

3. The applicant should consider separating the fire line and domestic water service line on the interior of the buildings.

4. The plans currently show the 12" sanitary sewer line that is being re—routed through the site to tie out to the sanitary sewer line in High Street. It shall be noted that the sewer line in High Street is only an 8" sewer line. The project engineer will need to further investigate where the existing 12" sewer line connects further down Beekman Street, as the connection of the 12" sewer line to an 8" line shall not be permitted.

5. The applicants engineer should further investigate the portion of the 12" sewer line that is to remain between the existing sewer manhole and proposed sewer manhole S-107 to determine if there are any service connection within this run of pipe. If there are no other connections within this run, then it is recommended that the sewer line be re-routed starting at the existing manhole in the access drive, and then down the access drive. Sanitary sewer manhole S-106 could be shifted to the east to intercept the new sewer line as it is run down the access drive.

6. The size and material of the water service lines shall be noted on the plans.

Sheet 13 of 18:

1. A pavement restoration detail shall be provided for any work within Beekman Street and/or High Street.

Sheet 15 of 18:

1. Note No. 2 shall be revised to note the use of ductile iron pipe, not HDPE pipe for water.

2. Note No. 4 shall be revised to eliminate the wording "or approved equal" after the word "Mueller".

Stormwater Pollution Prevention Plan:

1. Our office is in the process of reviewing the preliminary SWPPP submitted and will provide comments to the project engineer once we complete our review.

This completes our review at this time. Further comments may be provided based on future submissions when more detailed plans are prepared for the project. **A written response letter addressing each of the above comments should be provided with the next submission.** If you have any questions, or require any additional information, please do not hesitate to contact our office.

Very truly,

LANC & TULLY, P.C.

John Russo, P.E.

cc: John Clarke, Planner
Jennifer Gray, Esq.
Bruce Flower, Building Inspector

KARC
PLANNING CONSULTANTS, INC.

TO: John Gunn, Chair, and the City of Beacon Planning Board

FR: KARC Planning Consultants, Inc.

DATE: February 12, 2024

RE: 45 Beekman Street Site Plan, Beekman Arts Center LLC & Bay Ridge Studios LLC

I have reviewed the following materials regarding the proposed re-use of the building located at 409 Fishkill Avenue:

- Cover letter by Taylor M. Palmer, Cuddy + Feder LLP, dated January 30, 2024
- Revised Site Plan Application, dated January 30, 2024
- Revised Full EAF Part 1, dated January 30, 2024
- Response to Comments Memo by Aryeh J Siegel Architect, dated January 26, 2024
- Response to Comments Memo by Colliers Engineering, dated January 30, 2024
- Correspondence from City of Beacon Water Department, dated January 25, 2024
- Site Plan Set (18 sheets) by Colliers Engineering, dated January 30, 2024
- Floor Plan Set (2 sheets) unstamped, dated November 28, 2023
- Traffic & Parking Study by Colliers Engineering, dated November 28, 2023, revised January 26, 2024
- Traffic & Parking Study Memorandum by Colliers Engineering, dated January 31, 2024
- Preliminary SWPPP by Colliers Engineering, dated January 30,2024
- Comment letter by John Clarke Planning and Design, dated December 8, 2023

Project Description:
The applicant is proposing to construct two 4-story mixed-use buildings, comprised of 12,600 SF of commercial space (office/retail) on the first floors and 64 dwelling units above, where 14,088 SF and 65 units were previously proposed. The 1.78-acre site includes three parcels to be merged into a single lot of record. The proposed buildings and parking facilities are located in the Linkage (L) district with only the northern driveway onto Tompkins Avenue in the R1-7.5 Residential district. The project site is within the Local Waterfront Revitalization Program (LWRP) area, and immediately abuts parcels that fall within the Historic District and Landmark Overlay Zone along High Street and Thompkins Avenue.

Comments & Recommendations:
The proposed project site is strategically positioned to support the City's vision for improved connection between Main Street and the train station area. This vision is well documented in several of the City's previous planning efforts including the Comprehensive Plan (2007 and 2017 version), Beekman Street Complete Streets Analysis (2017), and Connecting Beacon's Main Street with the Hudson River and Railroad Station Report, aka "Linkage Plan" (2007). Each of these planning efforts highlight the need for streetscape improvements along Beekman Street, including new buildings to create activity and security, wider and

improved sidewalks, pedestrian-scaled lighting, benches, and continuous tree plantings and landscaping on both sides of the street.

1. **Building Placement / Frontage/ Front Yard Setback:**
   The Applicant has made distinct efforts to comply with the form-based regulations of the Linkage District, but the success of those efforts is diminished by an abnormally large right-of-way causing the proposed Beekman Street Building to be setback sixty feet from the edge of Beekman Street. We therefore support the recommendation of Dutchess County Planning, encouraging the City and Applicant to work together to transfer the excess right-of-way along Beekman Street to the Applicant. Relocation of the Beekman Street Building closer to the sidewalk, as opposed to the existing property boundary, will improve the project's compliance with the intent of the Linkage District deign standards as outlined in Section 223-41.21(K)(1), most importantly to "frame" the street with active uses.
   - **Front Yard Setback**. If the Beekman Street Building cannot be relocated, the Planning Board should work with the Applicant to ensure that the large front yard setback is "landscaped and used in a manner that enhances the street life by such means as pocket parks, gardens, fountains, outdoor tables, public art, and outdoor display of items for sale on the premises" per Section 223-41.21(D)(1).

2. **Landscaping Plan:** Existing Conditions (Sheet 2) should include the location, size, and species of all trees on the site over 6 inches in diameter and identify any trees that are to be removed. Sheet 11 (Landscaping Plan) appears to indicate the removal of all trees from the city/state owned right-of-way and propose planting of "native meadow mix."

3. **Streetscape Improvements:** Section 223-41.21(G) of the Linkage District regulations outline streetscape improvements within the street transition zone, pedestrian clearway, building transition zone, and building façade. The Planning Board may wish to request that the Applicant provide streetscape profiles to better assess compliance with the intent of this section. The Board may also wish to discuss the potential of planting street trees within the street transition zone.

4. **Lighting Plan:** The proposed Lighting Plan (Sheet 12) should clearly demonstrate compliance with all requirements of Section 223-14B. The following clarifications are required:
   - Confirm cutoff, color temperature, and color rendering index of all proposed fixtures.
   - Pedestrian and parking lot areas should average approximately one footcandle. The average footcandle for the proposed lighting plan is 2.1 fc. Only high security areas may require lighting in the two to five footcandle range, while over five footcandles is usually a waste of energy and a source of glare. The Planning Board may wish to discuss the intent of the lighting plan and whether lower lighting levels can be achieved while maintaining the desired level of security.

5. **Location of Off-Street Parking:** The Applicant should clearly indicate on the Dimension Plan (Sheet 3) that all parking is located at least 40 feet from any property line that fronts on a street, per Section 223-41.21F(1). The Planning Board should also discuss whether all parking is sufficiently screened from view of the street via walls, fencing or other landscaping.

6. **Architecture & Design:** The Applicant has stated that revised building elevations will be included in a future submission. Once submitted, the building design should be referred to the Architectural Review Subcommittee. Provided building elevations should note major dimensions, materials, colors, rooftop projections, and proposed frontage type(s). The Subcommittee should discuss how the proposed design appropriately relates to adjacent historic buildings within the Historic District and Landmark Overlay Zone and Lower Main Street Historic District pursuant to Section 223-41.21(K).

7. **Affordable-Workforce Housing**. The Applicant should more clearly outline how the proposed project complies with Article IVB of this chapter (Affordable-Workforce Housing). For example, where will Below Market Rate units be located within the proposed buildings, and what proportion will be one-bedroom versus two-bedroom units?

If you have any questions or need additional information, please feel free to contact me.

Natalie Quinn
Beacon Planning Consultant

Cc: Bruce Flower, Building Inspector
Jennifer L. Gray, Esq., City Attorney
John Russo, P.E., City Engineer
Taylor M Palmer, Esq., Attorney for the Applicant

February 9, 2024

Mr. John Gunn, Chairperson
Beacon Planning Board
City of Beacon City Hall
1 Municipal Plaza
Beacon, NY 12508

RE: Site Plan, Traffic and Parking Study Review #1 for **Proposed Mixed Use Development,** 45 Beekman Street & High Street, City of Beacon, Dutchess County, New York; CM Project No. 124-008

Chairperson Gunn:

Creighton Manning Engineering, LLP (CM) has performed a review of the following documents:

- Memorandum prepared by Colliers Engineering & Design (CED), dated January 31, 2024
- Traffic & Parking Study prepared by CED, revised January 26, 2024
- Preliminary Site Plan prepared by CED, dated January 30, 2024

At the time of this review, the proposed project consists of two four-story buildings identified as 45 Beekman and High Street. The 45 Beekman building is comprised of 8,760 square feet of commercial space, 2,410 square feet of tenant amenity space, and 36 dwelling units (16 one-bedroom units and 20 two-bedroom units). The High Street building is comprised of 3,930 square feet of commercial space, 3,420 square feet of tenant amenity space, and 28 dwelling units (13 one-bedroom units and 15 two-bedroom units). The site will be supported by 83 parking spaces inclusive of three ADA-accessible parking spaces. These parking spaces will be shared between the commercial and residential uses, i.e. there will be no assigned parking. Both buildings are provided one 14-ft x 35-ft loading space each that is located proximate to the building. Vehicular access to the site is provided via two full-movement driveways that improve upon the existing driveways on Beekman Street and Tompkins Avenue. Pedestrian access to the site is provided via four tie-ins with the existing sidewalk network along Beekman Street and North Avenue.

Upon review of the aforementioned documents, CM offers the following comments:

Traffic Impact Study (TIS):

1. The TIS studied the following intersections during the typical weekday AM (7:00 a.m. – 9:00 a.m.), weekday PM (3:00 p.m. – 6:30 p.m.), and Saturday midday peak periods (11:00 a.m. – 2:00 p.m.):
    a. North Ave (NYS Route 9D) and Verplank Ave
    b. North Ave (NYS Route 9D) and Tompkins Ave/Ralph St
    c. North Ave (NYS Route 9D) and Beekman St/W Church St
    d. Wolcott Ave/North Ave (NYS Route 9D) and Main St/Municipal Plz
    e. Beekman St and High St

    The studied periods appropriately capture the typical peak hours of the intersections, and the studied intersections provide an appropriate scope of study for evaluating traffic impacts.

2. Traffic volumes for a design year of 2026 were forecasted using an annual growth rate of +2.0% to account for general background growth. Additionally, the forecasting accounts for peak hour trips generated by the following other developments:
    a. Mirbeau Beacon
    b. 364 Main Street
    c. Edgewater (Edgewater Place)
    d. Beacon Commons (16 West Main Street)
    e. Prophecy Theater (1113 Wolcott Avenue)

The +2.0% annual growth rate considered for traffic volume forecasting are acceptable. The list of other developments that should be considered for traffic forecasting is also acceptable; however, CM requests that CED provide figures depicting the trip generation for each development. Peak hour trips generated by other developments such as Beacon Views, 7 Conklin, 152-58 Fishkill Avenue, 536 Main Street, and Two Cross Street are accounted for in the growth rate being considered.

3. The trip generation estimates shown in Table No. 1, accurately reflect the trip generation estimates from the ITE *Trip Generation Manual*, 11th Edition, based on the project description provided in the TIS. CM agrees that an internal capture credit of 10% applied only to the commercial site-generated trips as well as no credit being taken for residents walking/biking/using transit provides a conservative analysis.

4. The traffic figures provided with the TIS accurately reflect the Existing conditions. CM will review the figures for the No-Build (future traffic without the proposed development and Build (future traffic with the proposed development) conditions upon receipt of the other development figures.

5. Upon review of the level of service analyses for the study intersections, CM offers the following comments:
   a. North Ave (NYS Route 9D) and Verplank Ave: The level of service analyses prepared by CED correctly indicate that the intersection currently operates at acceptable levels of service during the study peak hours and will continue to do in the No-Build and Build conditions.

   b. North Ave (NYS Route 9D) and Tompkins Ave/Ralph St: The level of service analyses prepared by CED correctly indicate that the operations for this intersections will degrade in the No-Build condition with the minor street, stop-controlled approaches (Tompkins Ave/Ralph St) operating at a LOS E or worse during the study peak hours. In the Build condition, the level of service degradation of the minor street approaches will be exacerbated.

      CED conducted a level of service analysis that considered a signalized intersection. This analysis indicated that the signalized intersection would operate at acceptable levels of service. The signal warrant analysis conducted by CED correctly shows that a signal is warranted in the No-Build condition based on the Manual on Uniform Traffic Control Devices (MUTCD) Warrant 2 – Four-Hour Vehicular Volume. In the Build condition, the signal warrant analysis correctly indicates that a signal is warranted based on Warrant 1 Condition B – Minimum Vehicular Interruption of Continuous Traffic and Warrant 2 – Four Hour Vehicular Volume.

      While CM acknowledges that the site-generated trips associated with the proposed development tip the needle into warranting a signal at this intersection, it is evident that trips generated by other developments as well as general background growth are contributing to the volumes that trigger the warrants. CM recommends that the Board consider a payment in lieu of mitigation or other mechanism for accruing monies to engage the NYSDOT in the evaluation, design, and potential construction of a signal at this intersection.

   c. North Ave (NYS Route 9D) and Beekman St/W Church St: The level of service analyses prepared by CED correctly indicate that the intersection currently exhibits operational constraints during all study peak hours. These operational constraints will be exacerbated in the No-Build and Build conditions. CM recommends that the Board investigate a means of engaging the NYSDOT for the evaluation, design, and implementation of the necessary improvements to ameliorate the poor levels of service exhibited at this intersection during the study peak hours.

d. Wolcott Ave/North Ave (NYS Route 9D) and Main St/Municipal Plz: The level of service analyses prepared by CED correctly indicate that the intersection currently operates at acceptable levels of service during the study peak hour and will continue to do so in the No-Build and Build conditions. CM agrees that any improvements done to the North Ave (NYS Route 9D) and Beekman St/W Church St intersection should consider the Wolcott Ave/North Ave (NYS Route 9D) and Main St/Municipal Plz intersection.

e. Beekman St and High St: The level of service analyses prepared by CED correctly indicate that the intersection currently operates at acceptable levels of service during the study peak hours and will continue to do so in the No-Build and Build conditions.

f. Beekman St and Site Access: The level of service analyses prepared by CED correctly indicate that the intersection will operate at acceptable levels of service during the study peak hours in the Build condition. According to the LOS reports, the 95th-percentile queue for the northbound Beekman Street approach to the North Ave (NYS Route 9D) and Beekman St/W Church St intersection will not obstruct the Site Access during any of the study peak hours.

g. Tompkins Ave and Site Access: The level of service analyses prepared by CED indicate that the intersection will operate at acceptable levels of service during the study peak hours in the Build condition. However, CM is concerned that the analysis is not taking into account eastbound queuing from the North Ave (NYS Route 9D) and Tompkins Ave/Ralph St intersection obstructing the site access. CM requests that CED provide SimTraffic Results for this intersection as that methodology will account for the presumed future queueing.

6. The trip generation estimates shown in Table 1R, accurately reflect the trip generation estimates from the ITE *Trip Generation Manual*, 11th Edition, based on the project description provided in the Memorandum, dated January 31, 2024. CM agrees that an internal capture credit of 10% applied only to the commercial site-generated trips provides a conservative analysis. CM notes that the trip generation found in Table 1R reflects a reduction in site-generated trip compared to Table 1 of the TIS. Therefore, a revised TIS is not necessary based on the reduction in the proposed size of the project. However, CM does request that CED address comments 2 and 5.g.

Parking Study:

1. Based on the project description provided in the Memorandum, dated January 31, 2024, the project requires 102 parking spaces. The project is proposing 83 parking spaces inclusive of three ADA-accessible parking spaces; therefore, the project is a seeking relief for 19 parking spaces.

2. While CM agrees with methodology of the Shared Parking Analyses, CM requests that CED provide analyses without the Rail Credit for review.

Site Plan:

1. ADA-compliant curb ramps should be provided at the Site Access on Beekman Street.

2. ADA-compliant curb ramps and a striped crosswalk should be provided at the Site Access on Tompkins Avenue.

3. Is sidewalk access to Tompkins Avenue possible along the driveway?

4. A striped crosswalk should be placed along the entrance of the garage. Sufficient signing should be provided to alert drivers of pedestrians crossing the garage entrance.

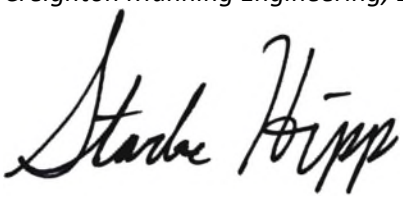
5. Can a crosswalk be provided internally connecting the two buildings?

6. The plans should depict the Highway Boundary.

7. The proposed work within the New York State Department of Transportation (NYSDOT) Right-of-Way will require the review and approval of the NYSDOT.

If you have any questions about the above comments, please do not hesitate to contact our office at (914) 800-9205.

Respectfully,
Creighton Manning Engineering, LLP



Starke W. Hipp, PE
Project Manager

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City of Beacon Planning Board Agenda
02/14/2024

Title:

Review application for Subdivision approval, internal property subdivision, 18-30 Edgewater Place, submitted by Scenic Beacon Developments, LLC.

ATTACHMENTS

18-30 Edgewater PB 2.14.24 Internal Lot Subdivision PB Submission - Edgewater(5915773.1).pdf

18-30 Edgewater PB 2.14.24 - Supplemental PB Submission - Cover Letter(5948743.2).pdf

18-30 Edgewater PB 2.14.24 Survey Rev(5948730.1).pdf

Lanc & Tully 18-30 Edgewater Subdiv 02-12-24 review_0001.pdf

KARC Review PB_18-30 Edgewater_2.13.2024.pdf

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CUDDY +FEDER LLP

300 Westage Business Center, Suite 380
Fishkill, New York 12524
T 845 896 2229
F 845 896 3672
cuddyfeder.com

Taylor M. Palmer
tpalmer@cuddyfeder.com

December 27, 2023

VIA E-MAIL
AND HAND DELIVERY
Hon. John Gunn
And Members of the Planning Board
City of Beacon
1 Municipal Plaza
Beacon, New York 12508

Re: Scenic Beacon Developments, LLC – Application for Internal Property Subdivision
Premises: 18-30 Edgewater Place Beacon, New York
Tax Parcel ID: 5955-19-590022

Dear Chairman Gunn and Members of the Planning Board:

On behalf of Scenic Beacon Developments, LLC (the "Applicant"), the owner of the above-referenced Premises, we respectfully submit this letter and the referenced enclosures in support of an Application for an Internal Property Subdivision (the "Application") relating to the Applicant's previously approved Edgewater project ("Edgewater"). *See* **Exhibit A** – City of Beacon Application for Subdivision Approval. This Application is submitted pursuant to the City of Beacon Zoning Code ("Zoning Code") Section 223-25.C(3), which provision was recently amended by the City Council following review by this Board.[1]

We respectfully request placement on this Board's January agenda to introduce the Application, as further detailed below.

THE APPLICANT SEEKS AN INTERNAL PROPERTY SUBDIVISION IN CONNECTION WITH THE APPROVED EDGEWATER PROJECT PURSUANT TO ZONING CODE SECTION 223-25.C(3), AS RECENTLY AMENDED:

On September 11, 2018, the Planning Board granted Site Plan approval for the Edgewater project, following review by the City Council and the Zoning Board of Appeals. The Applicant remains fully committed to compliance with the approved Site Plan and does not seek to modify any of its provisions or requirements. Accordingly, the instant Application relates solely to the provisions of Zoning Code 223-25.C(3), which authorizes the Planning Board to internally subdivide one (1)

[1] Note: The City Council adopted amendments to Zoning Code Section 223-25.C at its December 11, 2023 meeting, following referral to the Planning Board and subsequent review at the Board's November 14, 2023 meeting. A copy of the amendments can be found on the City's website, available here: https://legistarweb-production.s3.amazonaws.com/uploads/attachment/pdf/2326554/Proposed_Local_Law_No_7_of_2023_Regarding_Internal_Lot_Subdivisions.pdf.

or more of the lots or buildings within a project site that will continue to be controlled by the approved Site Plan.

As previously noted by the Applicant,[2] this provision in the Zoning Code, similar to those in other communities, applies to larger projects that are controlled by an overall project Site Plan, and that may involve a number of buildings or uses to be developed over a period time or in phases. Notably, these subdivisions ***do not*** impact the uses or building dimensions approved by the Planning Board in its Site Plan Review. Furthermore, the conditions of the original approvals continue to apply to the project. The internal subdivision process merely allows for internal lot lines to be redrawn on the project site around certain buildings or uses.

The Applicant's proposed Internal Property Subdivision will not change Edgewater in any way operationally. The Applicant is working to secure competitive construction and permanent financing arrangements for Buildings 1-7. Placing one (1) or two (2) buildings on its/their own "lot" will assist the Applicant in this endeavor.[3] Such separate financing is a common occurrence for complex multi-phased developments where a number of buildings are involved.

As detailed in the enclosed Preliminary Subdivision Plat, the Applicant proposes to place Buildings 1, 2, 5, 6, and 7 on their own lots. Buildings 3 & 4 are proposed on a single lot due to the integrated nature of those buildings. Edgewater operates and will continue to operate as a cohesive development pursuant to the commitments and conditions contained in the underlying Site Plan and related approval and subject to any reciprocal easements or agreements addressing common areas or amenities.[4] There will be no change in the Project or site functionality as a result of this Application.

THE APPLICATION DOES NOT REQUIRE ANY FURTHER ENVIRONMENTAL REVIEW BY THE PLANNING BOARD UNDER THE STATE ENVIRONMENTAL QUALITY REVIEW ACT ("SEQRA"):

This Planning Board has recognized that an Internal Property Subdivision is an additional approval sought as part of the whole action previously evaluated by the Planning Board under SEQRA that "does not create new or different adverse environmental impacts" and therefore the

[2] *See* Cuddy & Feder LLP Correspondence to the City Council, dated October 11, 2023. A copy of this Correspondence is available on the City's website.

[3] Note: As this Board may be aware, construction of several of the approved residential buildings is currently underway, with the remaining buildings slated to begin construction in 2024 – which is the genesis of this request.

[4] Note: The Applicant intends on submitting draft agreements to the City Attorney for review and comment following the Applicant's initial appearance before the Planning Board.

previously adopted Negative Declaration "fully addresses the whole action, including the proposed subdivision approval and no further SEQRA review is required."[5]

On July 10, 2018, the Planning Board adopted an Amended Negative Declaration for Edgewater recognizing that the project would not result in any adverse environmental impacts. *See* **Exhibit B** – Edgewater Negative Declaration.[6] The Applicant respectfully submits that, consistent with the Board's prior findings, the instant Application will not create any adverse environmental impacts[7] because the only "project change" is the act of drawing new lines on a plat to create separate parcels around the footprints of Buildings 1-7. The proposed action remains consistent with the prior environmental review of the Project and the previously adopted Negative Declaration. Furthermore, the physical aspects of Edgewater remain the same as those already examined by the Planning Board during its environmental review conducted during the original approval process. Accordingly, the Applicant respectfully requests the Planning Board reaffirm the lack of any adverse environmental impacts when issuing a decision on the Application.

LIST OF ENCLOSURES:

In support of this Application, please find five (5) copies of the following documents:

Exhibit A: Executed City of Beacon Application for Subdivision Approval for Internal Lot Subdivision;

Exhibit B: City of Beacon Planning Board Amended Negative Declaration for the Edgewater project, dated July 10, 2018 and filed in the City Clerk's Office on July 12, 2018; and

Exhibit C: City of Beacon Planning Board Preliminary & Final Subdivision Approval for Beacon Lofts & Storage, LLC (11-19 Mason Circle), adopted October 14, 2020 and filed in the City Clerk's Office on October 16, 2020.

In further support of this Application, we respectfully submit five (5) copies of a Preliminary Subdivision Plat entitled "Edgewater" prepared by Hudson Land Design Professional Engineering, P.C. dated December 27, 2023, detailing the proposed lots lines for the Internal Lot Subdivision.

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[5] *See* City of Beacon Planning Board Preliminary & Final Subdivision Approval for Beacon Lofts & Storage, LLC (11-19 Mason Circle), adopted October 14, 2020, annexed hereto as **Exhibit C**.

[6] Note: The Planning Board originally adopted a SEQRA Negative Declaration for Edgewater on December 12, 2017.

[7] *See also* 6 NYCRR 617.5(C)(16) (which provides that lot line adjustments are exempt from SEQRA).

Additionally, enclosed are two (2) checks payable to the City of Beacon in the amount of $3,100.00, representing the Application filing fee, and in the amount of $9,000.00 for the establishment of an escrow for professional review costs.

CONCLUSION:

The Applicant respectfully requests that this matter be placed on the Planning Board's January meeting agenda, at which time the Applicant looks forward to introducing the Application. In the meantime, should the Planning Board or City Staff have any questions, please do not hesitate to contact me. Thank you in advance for your consideration.

Very truly yours,

Taylor M. Palmer

Enclosures

cc: Bruce Flower, City Building Inspector
Jennifer L. Gray, Esq., Planning Board Attorney
John Clarke Planning and Design
John Russo, P.E., Lanc & Tully Engineering & Surveying, P.C.
Michael A. Bodendorf, P.E., Hudson Land Design Professional Engineering, P.C.
Brendan Johnson, PLS, Johnson Surveying, LLC
The Community Preservation Corporation
Allison Fausner, Esq.

Exhibit A

APPLICATION FOR SUBDIVISION APPROVAL

Submit to Planning Board Secretary, One Municipal Plaza, Suite One, Beacon, New York 12508

IDENTIFICATION OF APPLICANT

Name: Scenic Beacon Developments, LLC

Address: 28 Creek Drive

Beacon, NY 12508

Signature:

Date: December 26, 2023

Phone: 845-202-7271

(For Official Use Only)	Date	Initials
Preliminary Application Rec'd		
Application Fee:		
Public Hearing		
Preliminary Plat Approved:		
Final Plat Approved:		
Recreation Fee:		
Performance Bond:		

IDENTIFICATION OF REPRESENTATIVE / DESIGN PRFESSIONAL

Name: Taylor M. Palmer, Esq. - Cuddy & Feder LLP
Attorney for Applicant

Address: 300 Westage Business Center, Suite 380,
Fishkill, New York 12524

Phone: 914-761-1300

Fax: 914-761-5378

Email address: tpalmer@cuddyfeder.com

IDENTIFICATION OF SUBJECT PROPERTY:

Subdivision name or identifying title:
Edgewater Internal Property Subdivision Application

Street which property abuts: Edgewater Place, Tompkins Avenue, Branch and Bank Street

Current Tax Map Designation: Section 5955 Block 19 Lot 590022

Property (does) (does not) connect directly into a (State) (County) highway.

Land in subdivision (is) (is not) within 500 feet of a Municipal boundary.

Total area of property is 11.97 acres +/-

ITEMS TO ACCOMPANY THIS APPLICATION

a. One electronic and five (5) **folded** copies of a subdivision plat showing the location of the subject property and the proposed development with respect to neighboring properties and developments.

b. An application fee, payable to the City of Beacon, computed per the attached fee schedule.

c. An initial escrow amount, payable to the City of Beacon, as set forth in the attached fee schedule.

APPLICATION FEES

Site Plan	**Residential** $500 + $250 per dwelling unit **Commercial** $500 + $250 per 1,000 s.f.
Special Use Permit	**Residential** $500 + $250 per dwelling unit **Commercial** $500 + $250 per 1,000 s.f.
Subdivision	$ 750 for 2-4 lots + $100 per lot $1,000 for 5 or more lots + $300 per lot

ESCROW FEES

ALL SUBDIVISIONS, AND RESIDENTIAL SITE PLAN AND SUP APPLICATIONS

No. of Lots or Dwelling Units	Initial Deposit	Depleted to	Replenishment
1-5 (including lot-line realignment)	$ 3,000	$ 1,000	Current bills + $1,200
6-15	$ 9,000	$ 2,500	Current bills + $1,200
Over 15	$ 18,000	$ 5,000	Current bills + $6,000

NON-RESIDENTIAL SITE PLAN AND SUP APPLICATIONS

	Initial Deposit	Depleted to	Replenishment
Existing Buildings/Change of Use with no site development	$ 1,800	$ 1,000	Current bills + $600
Up to 3,000 s.f. gross floor area	$ 3,125	$ 1,000	Current bills + $1,200
3,000 to 10,000 s.f. gross floor area	$ 3,000 + $0.50 per sq.ft. over 3,000	$ 2,500	Current bills + $3,000
Over 10,000 s.f. gross floor area	$ 9,000 + $0.50 per sq.ft. over 10,000	$ 2,500	Current bills + $3,000

ARCHITECTURAL REVIEW OR CERTIFICATE OF APPROPRIATENESS ***(if not currently before PB)***

* *if required by Chairman*	Initial Deposit	Depleted to	Replenishment
Single Family House*	$500	$250	Current bills + $250
All others*	$500	$250	Current bills + $250

APPLICATION PROCESSING RESTRICTION LAW

Affidavit of Property Owner

Property Owner: Scenic Beacon Developments, LLC

If owned by a corporation, partnership or organization, please list names of persons holding over 5% interest.
Development Beacon Edgewater, LLC, Partner Beacon Edgewater, LLC and EWLWPWRW LLC

List all properties in the City of Beacon that you hold a 5% interest in:
18-30 Edgewater Place, Beacon, NY 12508

Applicant Address: 28 Creek Drive, Beacon, NY 12508

Project Address: 18-30 Edgewater Place, Beacon, NY 12508

Project Tax Grid # 5955-19-590022

Type of Application Internal Property Subdivision Application

Please note that the property owner is the applicant. "Applicant" is defined as any individual who owns at least five percent (5%) interest in a corporation or partnership or other business.

I, Rodney Weber, Managing Member of Scenic Beacon Developments, LLC, the undersigned owner of the above referenced property, hereby affirm that I have reviewed my records and verify that the following information is true.

1. No violations are pending for ANY parcel owned by me situated within the City of Beacon — X
2. Violations are pending on a parcel or parcels owned by me situated within the City of Beacon — N/A
3. ALL tax payments due to the City of Beacon are current — X
4. Tax delinquencies exist on a parcel or parcels owned by me within the City of Beacon — N/A
5. Special Assessments are outstanding on a parcel or parcels owned by me in the City of Beacon — N/A
6. ALL Special Assessments due to the City of Beacon on any parcel owned by me are current — X

Scenic Beacon Developments, LLC

By: _____

Signature of Owner

Rodney Weber, Managing Member

Title if owner is corporation

Office Use Only:	NO	YES	Initial
Applicant has violations pending for ANY parcel owned within the City of Beacon (Building Dept.)	X		MP
ALL taxes are current for properties in the City of Beacon are current (Tax Dept.)	X		KM
ALL Special Assessments, i.e. water, sewer, fines, etc. are current (Water Billing)	N/A		KM

CITY OF BEACON
PRELIMINARY SUBDIVISION PLAT
AND CONSTRUCTION PLANS SPECIFICATION FORM

Name of Application: Edgewater Internal Property Subdivision Application

PRELIMINARY SUBDIVISION PLAT	YES	NO
The preliminary plat shall be clearly marked "Preliminary Plat", shall be drawn to a convenient scale but not less than 1" = 100', and shall contain the following information:	**	**
Proposed subdivision name or identifying title, name, and address of property owner and subdivider (if other than owner), name and address of the surveyor and/or engineer preparing the plan, scale, approximate true North point, and date.	**	**
The approximate location and dimensions of all property lines, the total acreage of the proposed subdivision, the location of any zoning, special district or municipal boundary lines affecting the subdivision, and the names of owners of record of properties adjoining and directly across the street from proposed subdivision.	**	**
The location of all existing structures and pertinent features, including railroads, water bodies, water courses, wetlands, rock outcroppings, wooded areas, major trees, and stone walls, that may influence the design of the subdivision, plus accurate topography at a vertical contour interval of not more than two (2) feet. The topographic data shall be determined by field survey unless the Planning Board specifically waives this requirement and/or permits the substitution of topographic information obtained from other sources determined satisfactory for the particular case.	**	**
The location and status of existing streets or private roads, easements and rights-of-way (if any), proposals for the layout of new streets or private roads (including widths and approximate curve radii) and any proposed easements, rights-of-way and/or reservations.	**	**
The names of existing streets or private roads and proposed names for new streets or private roads.	**	**
The proposed arrangement of lots, including identifying numbers and approximate area and dimensions of each.	**	**
Location, size and nature of any area proposed to be reserved for park purposes.	**	**
A site location sketch, at a scale of one inch equals 400 feet, showing the general situation within 1,000 feet of the applicant's property with respect to surrounding properties, streets and private roads.	**	**
Where the preliminary plat includes only a portion of an applicant's contiguous holding, the applicant shall also indicate, on a sketch at a scale of not less than one inch equals 200 feet, the probable future street or private road system, lot arrangement and location of park and other reservations for the remaining portion of the tract. Such sketch shall be for the purpose of guiding the Planning Board in reviewing the proposed preliminary plat and shall include topographic data with a vertical contour interval of not more than five feet plus any other information determined necessary by the Planning Board.	**	**
Such additional information as may be required by Chapter 195 – Subdivision of Land; Chapter 223 – Zoning; or the Planning Board.	**	**

PRELIMINARY CONSTRUCTION PLANS	YES	NO
The preliminary construction plans shall be drawn at the same scale as the preliminary plat and shall include the following information:	**	**
Location and sizes of any existing water, sewer storm drainage and other utility lines and structures within and nearby the proposed subdivision.	**	**
The proposed system for the provision of water supply and fire protection facilities, sewage disposal, stormwater drainage, and other utility services.	**	**
Proposed street or private road profiles and cross-sections showing the approximate grade of proposed streets or private roads, the relationship of existing to proposed grades, and the proposed grades, and the proposed vertical curvature along the center line of all new streets or private roads.	**	**
Location of all existing and proposed monuments and other subdivision improvements.	**	**
Such additional information as may be required by this chapter, the Zoning chapter, or the Planning Board.	**	**

Please See Enclosed Application Narrative

CITY OF BEACON
FINAL SUBDIVISION PLAT
AND CONSTRUCTION PLANS SPECIFICATION FORM

Name of Application: **Edgewater Internal Property Subdivision Application**

FINAL SUBDIVISION PLAT	**YES**	**NO**
The final subdivision plat shall be drawn clearly and legibly on transparent tracing cloth with black waterproof ink, at a scale no smaller than one inch equals 100 feet but preferably at a scale of one inch equals 50 feet. The sheet size shall not exceed 36 inches by 48 inches. If the size of proposed subdivision required a drawing larger than this, two or more sheets may be submitted, with match lines clearly indicated, and an index map shall be prepared on the same size sheet.	**	**
The final plat shall contain the following information:	**	**
Proposed subdivision name or identifying title, name, and address of owner of record and of subdivider (if other than owner), certification and seal of the registered engineer or licensed land surveyor who prepared the plat, names of the owners of record of adjoining properties and of properties directly across the street or private road, graphic scale, approximate true North point, and date.	**	**
The location and dimensions of all boundary lines of the proposed subdivision, and all existing and proposed streets, private roads, lot lines, easements and rights-of-way, with sufficient data to readily determine the location, bearing and length of all such lines and to reproduce such lines upon the ground.	**	**
The names of all existing and proposed streets and private roads.	**	**
The locations of all water bodies and watercourses.	**	**
The location of all existing buildings, including identification of all buildings to be removed as a condition of plat approval.	**	**
The total acreage included in the entire subdivision, and the identification number and acreage of all lots and land reservations within the proposed subdivision.	**	**
Location of all existing and proposed monuments.	**	**
A site location map, at a scale of one inch equals 400 feet, showing the location of the subject property with respect to neighboring properties, streets and private roads.	**	**
Notations explaining any drainage, sight slope, street widening, park area or other reservations or easements, including any self-imposed restrictions or covenants.	**	**
Endorsement of approval by the Dutchess County Health Department.	**	**
Plan for the provisional delivery of mail, as approved by the local postmaster.	**	**
Endorsement of the owner as follows: "Approved for filing: _____ _____" Owner Date	**	**

FINAL SUBDIVISION PLAT *(continued)*	YES	NO
Form for endorsement by Planning Board Chairman as follows: "Approved by Resolution of the Planning Board of the City of Beacon, New York, on the _____ day of _____, 20_____, subject to All requirements and conditions of said Resolution. Any change, erasure, modification or revision of this plat, as approved, shall void this approval. Signed this _____ day of _____, 20_____, by _____, Chairman _____, Secretary In absence of the Chairman or Secretary, the Acting Chairman or Acting Secretary Respectively may sign in this place.	**	**
Such additional information as may be required by Chapter 195 – Subdivision of Land; Chapter 223 – Zoning; or the Planning Board.	**	**
Stormwater pollution prevention plan. A stormwater pollution prevention plan consistent with the requirements of Chapter 190 and with the terms of preliminary plan approval shall be required for final subdivision plat approval. The SWPPP shall meet the performance and design criteria and standards in Chapter 190, Article II. The approved final subdivision plat shall be consistent with the provisions of Chapter 190.	**	**

FINAL CONSTRUCTION PLANS	YES	NO
Final construction plans and profiles shall be prepared for all proposed streets, private roads and other required improvements. Plans shall be drawn at the same scale as the final plat and on the same size sheets, but not on the same sheets. The following information shall be shown:	**	**
Plans and profiles showing the location and a typical cross-section of street and/or private road pavements including curbs and gutters, sidewalks, manholes and catch basins; the location of street or private road trees, lighting and signs; the location, size and invert elevations of existing and proposed sanitary sewers, stormwater drains and fire hydrants; the location and size of all water, gas or other underground utilities or structures; and the location and design of any other required improvements.	**	**
Profiles showing existing and proposed elevations along the center line of all streets and private roads. Where a proposed street or private road intersects an existing street or private road, the elevation along the center line of the existing street or private road within 100 feet of intersection, shall be shown. All elevations must be referred to established U.S. Government of approved local benchmarks, where they exist within ½ mile of the boundary of the subdivision.	**	**
The Planning Board may require, where steep slopes exist, cross-sections showing existing and proposed elevations of all new streets and private roads every 100 feet at five points on a line at right angles to the center line of the street or private road, said elevation points to be at the center line of the street or private road, each property line, and points 30 feet inside each property line.	**	**
Location, size, elevation and other appropriate description of any existing facilities which will be connected to proposed facilities and utilities within the subdivision.	**	**

FINAL CONSTRUCTION PLANS *(continued)*		
Where the design of the subdivision requires the regarding of land, the regarding of land, the regraded contours shall be shown along with estimates of the quantity of material to be added or removed and the proposed measures to be implemented by the subdivider to rehabilitate the disturbed area or areas.	**	**
Title of all sheets, name, address, signature and seal of licensed engineer preparing the construction plans, the date prepared, including revisions dates if any, approximate true North point, scale, and consecutive numbering as sheet _____ of _____.	**	**
A notation of approval, on all sheets as follows "Approved by: _____ _____ Owner Date and _____ _____ Planning Board Chairman Date"	**	**
Such additional information as may be required by Chapter 195 – Subdivision of Land; Chapter 223 – Zoning; or the Planning Board.	**	**

For all items marked "NO" above, please explain below why the required information has not been provided:

Please see enclosed Application Narrative

Applicant/Sponsor Name: Scenic Beacon Developments, LLC

Signature: By: _____
Rodney Weber, Managing Member

Date: December 26 , 2023

FOR OFFICE USE ONLY
Application #

CITY OF BEACON
1 Municipal Plaza, Beacon, NY
Telephone (845) 838-5000 · http://cityofbeacon.org/

ENTITY DISCLOSURE FORM

(This form must accompany every land use application and every application for a building permit or certificate of occupancy submitted by any entity)

Disclosure of the names and addresses of all persons or entities owning any interest or controlling position of any Limited Liability Company, Partnership, Limited Partnership, Joint Venture, Corporation or other business entity (hereinafter referred to as the "Entity") filing a land-use application with the City is required pursuant to Section 223-61.4 of the City Code of the City of Beacon. If any Member of the Entity is not a natural person, then the names and addresses as well as all other information sought herein must be supplied about the non-natural person member of that Entity, including names, addresses and Formation filing documents. Applicants shall submit supplemental sheets for any additional information that does not fit within the below sections, identifying the Section being supplemented.

SECTION A.

IF AFFIANT IS A PARTNERSHIP, JOINT VENTURE OR OTHER BUSINESS ENTITY, EXCEPT A CORPORATION:

Name of Entity Scenic Beacon Developments, LLC	Address of Entity 28 Creek Drive, Beacon, New York 12508
Place where such business entity was created NYS Department of State	Official Registrar's or Clerk's office where the documents and papers creating entity were filed NYS Department of State
Date such business entity or partnership was created 11/25/2015	Telephone Contact Information 845-202-7271

IF AFFIANT IS A CORPORATION:

Name of Entity	Telephone Contact Information
Principal Place of Business of Entity	Place and Date of incorporation
Method of Incorporation	Official place where the documents and papers of incorporation were filed

SECTION B. List all persons, officers, limited or general partners, directors, members, shareholders, managers, and any others with any interest, mortgage, encumbrance or other interest (recorded or unrecorded) in or with the above referenced

Entity. List all persons to whom corporate stock has been pledged, mortgaged or encumbered and with whom any agreement has been made to pledge, mortgage or encumber said stock. Use a supplemental sheet to list additional persons.

Name	Resident Address	Resident Telephone Number	Nature and Extent of Interest
Development Beacon Edgewater, LLC	28 Creek Drive Beacon, NY 12508	845-202-7271	31.31%
Partner Beacon Edgewater, LLC	28 Creek Drive Beacon, NY 12508	845-202-7271	8.69%
EWLWPWRW LLC	28 Creek Drive Beacon, NY 12508	845-202-7271	60.00%

SECTION C. List all owners of record of the subject property or any part thereof.

Name	Residence or Business Address	Telephone Number	Date and Manner title was acquired	Date and place where the deed or document of conveyance was recorded or filed.
Scenic Beacon Developments, LLC	28 Creek Drive Beacon, NY 12508	845-202-7271	June 20, 2016 Bargain & Sale Deed	Recorded in the Dutchess County Clerk's office on July 1, 2016 as Doc#02-2016-4225

SECTION D. Is any owner, of record or otherwise, an officer, director, stockholder, agent or employee of any person listed in Section B-C?

☐ YES ☒ NO

Name	Employer	Position

SECTION E. Is any party identified in Sections A- C an officer, elected or appointed, or employee of the City of Beacon or related, by marriage or otherwise, to a City Council member, planning board member, zoning board of appeals member or employee of the City of Beacon ?

☐ ☒

YES X NO

If yes, list every Board, Department, Office, agency or other position with the City of Beacon with which a party has a position, unpaid or paid, or relationship and identify the agency, title, and date of hire.

Agency	Title	Date of Hire, Date Elected, or Date Appointed	Position or Nature of Relationship

SECTION F. Was any person referred to in Sections A-D known by any other name within five (5) years preceding the date of the application?

☐ YES ☒ NO

Current Name	Other Names

SECTION G. List the names and addresses of each person, business entity, partnership and corporation in the chain of title of the subject premises for the five (5) years next preceding the date of the application.

Name	Address
Scenic Beacon Developments, LLC	28 Creek Drive, Beacon, NY 12508

SECTION H. If the applicant is not a record owner of the subject property, describe the applicant's interest in the subject property and the relationship the applicant has to the record owner(s) of the subject property.

N/A

SECTION I. If the applicant is a contract vendee, a duplicate original or photocopy of the full and complete contract of purchase, including all riders, modification and amendments thereto, shall be submitted with the application. Any sensitive or confidential information may be redacted from the contract prior to production.

SECTION J. N/A

1. Where the record owner or contract vendee is a corporation, the following additional information shall be submitted:

Name of the Corporation	Telephone Contact Information
Principal Business Address	Place and Date of Incorporation
Method of Incorporation	Official place where the documents and papers of incorporation were filed

2. Please provide the following information for every incorporator, officer, director and shareholder of the corporation.

Name	**Residence or business address**	**Telephone number**

3. Have any shares of the stock of the corporation or of any stockholder been pledged, mortgaged or encumbered?

☐ YES ☒ NO

If so, please list the name and address of each person having, holding, owning or claiming any such interest.

Name	Address

SECTION K. Have the present owners entered into a contract for the sale of all or any part of the subject property and, if in the affirmative, please provide a duplicate original or photocopy of the fully and complete contract of sale, including all riders, modifications and amendments thereto.

☐ YES ☒ NO

I, Rodney Weber being first duly sworn, according to law, deposes and says that I am (Title) Managing Member an active and qualified member of the Scenic Beacon Developments LLC, a business duly authorized by law to do business in the State of New York, and that the statements made herein are true, accurate, and complete.

Scenic Beacon Developments, LLC

(Print) By: Rodney Weber, Managing Member

(Signature)

Exhibit B

Agency Use Only [IfApplicable]

Project : Edgewater

Date : 7/10/18

Full Environmental Assessment Form
Part 3 - Evaluation of the Magnitude and Importance of Project Impacts and Determination of Significance

Part 3 provides the reasons in support of the determination of significance. The lead agency must complete Part 3 for every question in Part 2 where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.

Based on the analysis in Part 3, the lead agency must decide whether to require an environmental impact statement to further assess the proposed action or whether available information is sufficient for the lead agency to conclude that the proposed action will not have a significant adverse environmental impact. By completing the certification on the next page, the lead agency can complete its determination of significance.

Reasons Supporting This Determination:

To complete this section:

- Identify the impact based on the Part 2 responses and describe its magnitude. Magnitude considers factors such as severity, size or extent of an impact.
- Assess the importance of the impact. Importance relates to the geographic scope, duration, probability of the impact occurring, number of people affected by the impact and any additional environmental consequences if the impact were to occur.
- The assessment should take into consideration any design element or project changes.
- Repeat this process for each Part 2 question where the impact has been identified as potentially moderate to large or where there is a need to explain why a particular element of the proposed action will not, or may, result in a significant adverse environmental impact.
- Provide the reason(s) why the impact may, or will not, result in a significant adverse environmental impact
- For Conditional Negative Declarations identify the specific condition(s) imposed that will modify the proposed action so that no significant adverse environmental impacts will result.
- Attach additional sheets, as needed.

See attached for the reasons supporting this Amended Negative Declaration.**

**As a result of the project changes, the Proposed Action has been reclassified from a Type I Action to an Unlisted Action because the Proposed Action now includes the development of less than 250 dwelling units.

Determination of Significance - Type 1 and Unlisted Actions

SEQR Status: ☐ Type 1 ☑ Unlisted

Identify portions of EAF completed for this Project: ☑ Part 1 ☑ Part 2 ☑ Part 3

Upon review of the information recorded on this EAF, as noted, plus this additional support information

All application materials submitted by the Applicant, memoranda from City staff and Consultants, agency and public comment, and testimony from meetings held on the application.

and considering both the magnitude and importance of each identified potential impact, it is the conclusion of the City of Beacon Planning Board as lead agency that:

☑ A. This project will result in no significant adverse impacts on the environment, and, therefore, an environmental impact statement need not be prepared. Accordingly, this negative declaration is issued.

☐ B. Although this project could have a significant adverse impact on the environment, that impact will be avoided or substantially mitigated because of the following conditions which will be required by the lead agency:

There will, therefore, be no significant adverse impacts from the project as conditioned, and, therefore, this conditioned negative declaration is issued. A conditioned negative declaration may be used only for UNLISTED actions (see 6 NYCRR 617.d).

☐ C. This Project may result in one or more significant adverse impacts on the environment, and an environmental impact statement must be prepared to further assess the impact(s) and possible mitigation and to explore alternatives to avoid or reduce those impacts. Accordingly, this positive declaration is issued.

Name of Action: Edgewater

Name of Lead Agency: City of Beacon Planning Board

Name of Responsible Officer in Lead Agency: John Gunn

Title of Responsible Officer: Chairman

Signature of Responsible Officer in Lead Agency: Date: 7/10/2018

Signature of Preparer (if different from Responsible Officer) Date: 7/10/18

For Further Information:

Contact Person: Etha Grogan, Planning Secretary

Address: 1 Municipal Plaza, Beacon NY 12508

Telephone Number: 845-838-5002

E-mail: egrogan@cityofbeacon.org

For Type 1 Actions and Conditioned Negative Declarations, a copy of this Notice is sent to:

Chief Executive Officer of the political subdivision in which the action will be principally located (e.g., Town / City / Village of)
Other involved agencies (if any)
Applicant (if any)
Environmental Notice Bulletin: http://www.dec.ny.gov/enb/enb.html

PRINT FULL FORM

ATTACHMENT TO
AMENDED
NEGATIVE DECLARATION
REASONS SUPPORTING DETERMINATION

APPLICATION FOR SITE PLAN, SPECIAL USE PERMIT AND SUBDIVISION APPROVAL FOR EDGEWATER

22 Edgewater Place:
Tax Grid Nos. 5954-25-581985, 5954-25-574979, 5954-25-566983, 5955-19-59002

CONCLUSIONS

On December 12, 2017, the Beacon Planning Board adopted a Negative Declaration finding that the Proposed Action would not result in any significant adverse environmental impacts.

On June 12, 2018 the Beacon Planning Board received a revised set of plans for the Project which included revisions to the site plan, in part to comply with Local Law No. 9-2018 adopted by the City Council on May 21, 2018 which amended the calculation of lot area per dwelling unit in the R1, RD and Fishkill Creek Development Districts. The revisions to the Project include but are not limited to a reduction in the total number of proposed dwelling units from 307 units (413 bedrooms) to 246 units (350 bedrooms), a reduction in the number of parking spaces, a reduction in the amount of impervious surface coverage, and approximately 140 feet of additional walkways on the west side of the Property facing the Hudson River ("Amended Project" or "Amended Proposed Action"). Additional application materials submitted with the revised plans included an updated Part 1 of the Environmental Assessment Form (EAF), dated June 11, 2018.

At the time of the Planning Board's adoption of the Negative Declaration on December 12, 2017, the Proposed Action was a Type I action pursuant to 6 NYCRR 617.4(b)(5)(iii) because the project proposes the construction of more than 250 new residential units to be connected to, public water and sewer in a city having a population of less than 150,000. The Amended Proposed Action is no longer a Type I action because it proposes a total of 246 dwelling units which falls below the threshold for Type I actions. Therefore, the Amended Proposed Action is an Unlisted action.

The Planning Board, as Lead Agency, previously held a public hearing to consider comments regarding any environmental impacts of the Proposed Action on May 9, 2017 and continued the hearing to July 11, 2017, August 8, 2017, September 12, 2017, October 12, 2017, November 14, 2017 and December 12, 2017, at which time the State Environmental Quality Review Act (SEQRA) public hearing was closed.

Based upon a review of the Updated Parts 1 and 2 of the Full EAF and all other application materials that were submitted in support of the Proposed Action and the Amended Proposed Action, along with reports from City staff and consultants, information from involved and interested agencies, and information from the public, the Planning Board, acting as Lead Agency, makes the following conclusions.

The Proposed Action will not result in any significant adverse impacts on the environment. In summary:

- **Impact on Land: The Proposed Action will not have a significant adverse environmental impact as a result of any physical change to the project site.**

  Much of the analyses regarding impacts to land remain the same in the Amended Proposed Action as were analyzed for the Proposed Action in December 2017.

  The Project Site continues to consists of four (4) parcels which are proposed to be merged into one development parcel of approximately 12 acres. Approximately 10 acres of the Site will be disturbed for development of the Project. The Site is currently developed with two buildings and is characterized by prior soil disturbance across much of the Site. Several stockpiles of aggregate and topsoil are currently located within the central portion of the Site on either side of the remnants of an asphalt road that extends across the central portion of the Site.

  The Site is located within the RD-1.7 Zoning District. The Amended Project proposes 246 dwelling units (350 bedrooms) in seven (7) apartment buildings with associated infrastructure including utility lines, stormwater facilities, and a below-grade parking garage and on-grade parking. The number of proposed units was reduced from the 307 units (413 bedrooms) analyzed as part of the Planning Board SEQRA Negative Declaration adopted on December 12, 2017. The reduction in proposed units was required to comply with Local Law No. 9-2018 adopted by the City Council on May 21, 2018 which amended the calculation of lot area per dwelling unit in the R1, RD and Fishkill Creek Development Districts. Local Law No. 9-2018 generally requires that areas containing "Very Steep Slopes" must be deducted from the total net buildable area for the purposes of determining a property's allowable density. "Very Steep Slopes" are defined by Local Law No. 9-2018 to include slopes of 25% or more extending over a contiguous land area of at least 10,000 square feet. Based on this formula, a total area of 110,533 square feet was deducted from the lot area to determine the Property's net buildable area. This calculation resulted in a total unit count of 242 prior to adding the 10 bonus units as per the City's Affordable Work Force Housing Law, bringing the total allowable units to 252. The Amended Proposed Action proposes 246 units comprised of 25 studios, 126 1-bedroom units, 86 2-bedroom units, and 9 3-bedroom units.

Land banked parking will continue to be utilized for a portion of the proposed parking spaces to minimize land disturbance and impervious coverage. The prior plans proposed to land bank 33 parking spaces, whereas the Amended Proposed Action proposes to land bank 45 parking spaces. A total of 328 parking spaces are required pursuant to the City Zoning Code and 329 parking spaces are proposed through a mix of 238 surface parking spaces, 46 podium parking spaces and 45 land banked parking spaces.

The Project will continue to require the removal of approximately 3.2 acres of woods, which generally involves smaller trees located on the interior of the site. No wetlands or wetland buffer areas will be disturbed as a result of the Project. As described in the June 12, 2018 memorandum from Hudson Land Design, P.C. entitled, "Reduced Density Proposal – Avoidance of Newly Defined Very Steep Slopes Wherever Possible," disturbance of slopes will be avoided, minimized and stabilized using best management practices during construction and post-construction.

The revised site plan features several changes to reduce the impacts on Very Steep Slopes compared to the previous December 12, 2017 plans, including a retaining wall along the eastern parking area to maintain existing slopes near Bank Street, elimination of the parking areas behind Building 7 and along the lower access driveway, and the relocation of the western trail route to avoid slopes along the bluff overlooking the Hudson River. Due to proposed development on Very Steep Slopes, compliance with Section 223-16.B will be required for any final approvals for the Amended Project.

- **Impact on Geological Features: The Proposed Action will not have a significant adverse environmental impact on any unique or unusual land forms on the site.**

  There continue to be no unique geological features on the Property.

- **Impacts on Surface Water and Groundwater: The Proposed Action will not have a significant adverse environmental impact on surface or groundwater quality or quantity.**

  Residential land uses are generally not associated with the discharge of contaminants into aquifers or other ground water sources. There will be no bulk storage of petroleum or chemicals on-site. The Amended Project does not include or require wastewater discharged to groundwater, and is not located within 100 feet of potable drinking water or irrigation sources.

Site disturbance will still exceed 1-acre. Therefore the full Stormwater Pollution Prevention Plan (SWPPP) that was prepared to obtain coverage under NYSDEC SPDES General Permit GP-0-15-002 will be updated to reflect the reduction in site disturbance and impervious surface coverage. The proposed stormwater practices shown on the plans and described in the SWPPP are designed in accordance with the NYSDEC Stormwater Management Design Manual, including design of an underground site stormwater conveyance system and three infiltration basins.

The Amended Project will be connected to the existing public water distribution system. The Project reviewed for the Planning Board's December 2017 Negative Declaration was expected to require 45,430 gallons of water per day at full build out based on 307 dwelling units (413 bedrooms). The Amended Project is now expected to require 38,500 gallons of water per day at full build out based on 246 dwelling units (350 bedrooms). This represents a reduction of 6,930 gallons per day. Based on a recent study completed by the City of Beacon, there is sufficient public water supply for the Amended Proposed Action.

A 6" ductile iron (DI) water main runs beneath Tompkins Terrace and an 8" DI main runs beneath Bank Street. An 8" DI spur runs into the Site beneath Branch Street from Bank Street to an existing hydrant. The Amended Project continues to propose that the Site will connect to the 8" DI pipe (DIP) on Bank Street through a 8" DIP. The 8" DIP will be brought through the Site to provide water supply to the new buildings and continue to Branch Street and connect to the 8" DIP forming a looped connection to the City water system. The Applicant continues to propose to dedicate the new 8" water main to the City, along with a 20' wide utility easement for maintenance purposes. Flow and pressure tests have confirmed adequate flow and pressure are available for the Project. New fire hydrants and periodic isolation valves are proposed within the Site. In the event the City does not accept dedication of the 8" water main and easement, the infrastructure will remain privately owned and maintained but will need to be modified to include backflow prevention devices and meters. Notably, the Amended Project does not propose to use public water for irrigation purposes. Rather, the Amended Project includes an underground cistern for harvesting roof runoff for irrigation purposes. This is consistent with the original Project that was the subject of the December 2017 Negative Declaration.

The Amended Project will be connected to the existing public sanitary sewer system. The Project reviewed for the Planning Board's December 2017 Negative Declaration was expected to require 45,430 gallons of water per day at full build out based on 307 dwelling units (413 bedrooms). The Amended Project is now expected to require 38,500 galls of water per day at full build out based on 246 dwelling units (350 bedrooms x 110 gpd/bedroom). This represents a reduction of 6,930 gallons per day. Under normal operating conditions the public sanitary sewer system is

sufficient for the Project; however the West Main Street sewer pump station may require upgrades. If it is determined that upgrades are necessary as the City's hydraulic model of the sewer system is updated, the upgrades will be implemented as necessary. The Site currently contains an existing apartment building, and a single family residence. Both structures will be demolished thereby eliminating any current inflow and infiltration (I&I) entering the City sanitary sewer system (North interceptor) from the Site.

- **Impact on Flooding: The Proposed Action will not have a significant adverse environmental impact on or alter drainage flows or patterns, or surface water runoff.**

For the Amended Proposed Action, the treatment of stormwater will continue to be provided for the new impervious area. The Planning Board noted in its December 2017 Negative Declaration that a Stormwater Pollution Prevention Plan (SWPPP) had been prepared in accordance with the requirements of NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-15-002. The final stormwater management system was proposed to consist of minimal conveyance systems which included culverts and grass-lined swales/dikes where required. It was anticipated that most, if not all perimeter diversion swales/dikes will be unnecessary and removed after installation; however, there may be a need for some as site conditions warrant. The remainder of the drainage area would remain undisturbed with natural vegetation remaining.

The Amended Project includes a reduction in impervious surface coverage. Based on this reduction, the SWPPP will be updated to include the reduction in impervious area which was contributing to each stormwater management facility (Bioretention Areas 1 &2 and Infiltration Basin 3). The reduction in impervious surface coverage will reduce overall stormwater impacts.

Further, the Amended Project continues to propose the implementation of green infrastructure practices to the greatest extent possible to reduce runoff, including avoidance of sensitive areas, minimizing grading and soil disturbance, minimizing impervious areas on internal access ways, driveways and parking areas, and use of meadow as permanent final groundcover to provide better water quality. The Amended Project continues to propose parking spaces and drive aisles that were reduced in size from 9'x20' with a 25' drive aisle to 9'x18' with a 24' drive aisle, to comply with the newly amended City Code requirements and consistency with the "Greenway Connections" and NYSDEC stormwater objectives to reduce impervious surfaces. Infiltration/bioretention practices, use of open channel

vegetated conveyance systems, and an underground cistern for roof runoff will also continue to be implemented.

As in December 2017, pretreatment practices proposed for the Amended Project include overland flow, vegetated swales, stone check dams, hydrodynamic devices, treatment practices, bioretention areas, infiltration basins and grass filter strips.

In December 2017, the proposed Bioretention areas 1 and 2 did not meet 100% Runoff Reduction Volume (RRV) due to shallow bedrock constraints. The January 2015 NYSDEC Stormwater Design Manual describes acceptable site limitations to include shall depth to bedrock. It was proposed at that time that Bioretention Area 1 will be supplemented with cisterns for roof runoff, and Bioretention Area 2 will be supplemented with a vegetated swale to maximize the Runoff Reduction Volume. As the SWPPP is updated by the Applicant to include the reduced impervious surface coverage, the City Engineer will review to confirm whether these practices remain applicable and issue his recommendations to the Planning Board. Moreover, temporary vegetation sufficient to stabilize the soil will be provided on all disturbed areas as needed to prevent soil erosion, in accordance with the SWPPP.

- **Impact on Air: The Proposed Action will not have a significant adverse environmental impact on air quality.**

Impacts on air resulting from the Amended Proposed Action remain unchanged from the Planning Board's December 2017 Negative Declaration.

Construction activities associated with grading and excavation could result in temporary air quality impacts. Air quality in the area, however, is not expected to be significantly impacted by project construction because the construction activities will be temporary and confined to the Site. Construction vehicles will emit certain air pollutants through engine exhaust. There is also the potential for fugitive dust to be created during the construction period from site preparation activities, including removal of existing impervious surfaces and vegetation, and site grading. Fugitive dust emissions will be mitigated by wetting and stabilizing soils to suppress dust generation. Other dust suppression methods will include the spraying of soil stockpiles during dry periods and covering trucks carrying solid and other dry materials. These unavoidable short term impacts to air quality will cease upon project completion. Construction will be conducted in accordance with the final filed site plan and in accordance with all applicable federal, state and local codes. It is anticipated that nearby properties will experience temporary fugitive dust and an elevation in vehicle emissions from construction vehicles throughout occasional

periods during construction of the proposed project. This is a temporary, construction-related, unavoidable impact that is not significant.

- **Impact on Plants and Animals: The Proposed Action will not have a significant adverse environmental impact on flora or fauna.**

  Impacts on plants and animals resulting from the Amended Proposed Action remain unchanged from the Planning Board's December 2017 Negative Declaration.

  Pursuant to a March 30, 2017 letter from NYSDEC, the only state-listed species recorded within or near the Project Site is the Indiana Bat (NYS Listing: Endangered). The main impact of concern for bats is the removal of potential roost trees. The Applicant submitted a Threatened and Endangered Species Habitat Suitability Assessment Report, dated September 15, 2017, prepared by Ecological Solutions, LLC, Southbury, CT. The Report concluded "The proposed project will require the removal of approximately 3.2 acres of woods for the proposed project, which generally involves smaller trees located on the interior of the site that consist of opportunistic trees that are not prime for Indiana bat habitat." Pursuant to NYSDEC recommendations, removal of trees greater than four (4) inches in diameter at the Project Site will take place between October 1 and April 1 during the bat hibernation period to avoid the removal of trees which may be utilized by Indiana Bats as roosting trees. The Amended Proposed Action also includes shielded, cut-off light fixtures that direct light down to minimize light pollution and not interfere with potential bat foraging activities. Lastly, the Amended Proposed Action includes implementation of soil conservation and dust control best management practices, such as watering dry disturbed soil to keep dust down, and using staked, recessed silt fence and anti-tracking pads to prevent erosion and sedimentation in surface waters on the site. Also, native vegetation is proposed to enhance wildlife habitat.

- **Impact on Agricultural Resources: The Proposed Action will not have a significant adverse environmental impact on agricultural resources.**

  There continue to be no agricultural resources in the vicinity of the Site.

- **Impact on Aesthetic Resources: The Proposed Action will not have a significant adverse environmental impact on aesthetic resources.**

  Impacts on aesthetic resources resulting from the Amended Proposed Action remain unchanged from the Planning Board's December 2017 Negative Declaration.

  The Amended Proposed Action will not result in the obstruction, elimination or significant screening of one or more officially designated scenic views, or visible from any publicly accessible vantage points either seasonally nor year around.

The Local Waterfront Revitalization Program (LWRP) does not list viewsheds from the Site, or viewsheds that would be obscured by the Project. Seasonal views of the Amended Project will be experienced from the Metro North train station and from the Hudson River. The Applicant submitted an updated LWRP Consistency Statement, prepared by Aryeh Siegel, Architect, which was reviewed by the City Planner. Photo renderings of the Amended Project were also submitted by the Applicant demonstrating the possible seasonal views from these vantage points. The views remain unchanged from the December 2017 Negative Declaration. The renderings demonstrate that the tops of the buildings will be visible to some degree and the level of visibility will change with the seasonal leaf coverage. Architectural review of the proposed building roofs includes attention to the roof materials and finishes to harmonize with the existing landscape. The buildings have been designed to be set back from the property lines to allow for the maintenance of the existing wooded hillsides around the proposed development areas. The seasonal views of the Amended Project are consistent with the existing viewshed and will not result in a significant adverse environmental impact.

It is noted that the height of the proposed buildings complies with the maximum building height permitted in the RD-1.7 District. However, due to the method in which the buildings are measured under the City of Beacon Zoning Code three (3) of the seven (7) proposed buildings received a variance from the maximum number of stories permitted. Buildings 3, 4 and 6 will be 55 feet in height, consistent with the limitations in the Zoning Code, but are measured as 5 stories where a maximum of 4.5 stories is permitted.

Although there are no officially designated scenic views affected by the Amended Project, it should be noted that views of the Amended Project from publically accessible areas such as public streets, will be improved in the Amended Project as compared to the original Project reviewed for the December 2017 Negative Declaration. The reduced unit count requires 58 fewer parking spaces which resulted in additional green space, particularly at the most visible portion of the Property near the Bank Street/Tompkins Avenue intersection. Also, the parking areas behind Building 7 and along the lower driveway south of Building 4 have been eliminated.

- **Impact on Historic and Archeological Resources: The Proposed Action will not have a significant adverse environmental impact on historic or archeological resources.**

Impacts on historic and archeological resources resulting from the Amended Proposed Action remain unchanged from the Planning Board's December 2017 Negative Declaration.

Pursuant to a March 30, 2017 letter from NYSDEC, the records of the statewide inventory of archaeological resources maintained by the New York State Museum and the New York State Office of Parks, Recreation and Historic Preservation (NYS OPRHP) state that the Proposed Action is located within an area considered to be sensitive with regard to archaeological resources.

A Phase 1A Archeological Investigation for the Project Site dated September 2017 was submitted for the Board's review. The Phase 1A Report provides the following conclusion:

"The project area has experienced extensive soil disturbance, initially the result of historic development followed by excavation related to the removal of the historic buildings that once occupied the site. The recent use of the property for aggregate and topsoil stockpiling have also affected the landscape. A significant portion of the property, especially along the eastern, southern and western perimeters, have slopes exceeding 12%. With the high level of disturbance and the presence of slopes greater than 12%, no further archeological investigation is recommended."

Additionally, based on its review of the Project (OPRHP Project Review #17PR06370), in a letter dated October 10, 2017, the NYS OPRHP provided the following opinion: "...[the] project will have no impact on archaeological and/or historic resources listed in or eligible for the New York State Register of Historic Places."

- **Impact on Open Space and Recreation: The Proposed Action will not have a significant adverse environmental impact on open space and recreation.**

  Impacts on open space and recreation resulting from the Amended Proposed Action remain unchanged from the Planning Board's December 2017 Negative Declaration.

  The area of the Proposed Action is not designated as open space by the City of Beacon. The Proposed Action will not result in the loss of a current or future recreational resource, eliminate significant open space, or result in loss of an area now used informally by the community as an open space resource, as the Site is primarily a vacant lot, with improvements limited to an existing apartment building and a single family residence. If a park of adequate size and practical location does not address the need for additional recreation/parkland within the City, a recreation fee will be required which will be used for the future need for park and recreational opportunities in the City of Beacon.

- **Impact on Critical Environmental Areas: The Proposed Action will not have a significant adverse environmental impact on Critical Environmental Areas.**

The Amended Proposed Action is not located in a Critical Environmental Area.

- **Impact on Transportation: The Proposed Action will not have a significant adverse environmental impact on transportation.**

A Traffic Impact Study, dated January 18, 2017, revised February 27, 2017, (the "Study") was prepared by Maser Consulting, P.A., Hawthorne, N.Y. for review by the Planning Board. The Study was prepared to identify current and future traffic operating conditions on the surrounding roadway network and to assess the potential traffic impacts of the Project. The Study was based on the prior proposal of 307 dwelling units. The Study was subject to review and comment by the Planning Board's Traffic Consultant, Creighton Manning Engineers, LLP, Albany, N.Y.

The Amended Project continues to propose access to the Site at a reconstructed driveway connection to Tompkins Avenue located between Tompkins Terrace and Bank Street. The Amended Project also continues to include an extension at the southern end of the Site to Branch Street, providing access directly to Bank Street, which connects to West Main Street to the south.

The Study established Year 2017 Existing Traffic Volumes and then projected a 2022 Design Year which took into account background traffic growth and traffic from other potential or approved developments in the area. Estimated volume from the Project during peak hours was added to the Study and the Existing, No-Build and Build Traffic Volumes were compared to roadway capacities based on procedures from the Highway Capacity Manual to determine existing and future Levels of Service (LOS) and operating conditions.

The following intersections were studied:

Wolcott Avenue (NYS Route 9D)/Tompkins Avenue/Ralph Street
Tompkins Avenue/Bank Street
Beekman Street/W.Main Street
W.Main Street/Bank Street
Wolcott Avenue (NYS Route 9D)/Verplanck Avenue
Wolcott Avenue (NYS Route 9D)/Beekman Street/West Church Street
Wolcott Avenue (NYS Route 9D)/Main Street/Municipal Place
Tompkins Avenue/Site Access
Branch Street/Bank Street

The Study concluded and the Planning Board's Traffic Consultant concurred that similar levels of service and delays will be experienced at the area intersections

under the future No-Build and Build Conditions. The majority of the intersections studied will experience a traffic volume increase of 7% or less as a result of Edgewater or the West End Lofts project recently approved by the Planning Board. The traffic projections do not take any credits for the anticipated use of Metro North and/or pedestrian trips to the train by residents of the new developments, which will likely reduce the actual peak vehicular traffic generated given the walking distance to the train station. The Applicant's traffic consultant prepared analyses for the Project as a transit-oriented development, based on the Site's proximity to the Metro-North train station. Where a mass transit credit is applied to the Project, which the Applicant's traffic consultant identified could be obtainable for the Site, the Applicant's traffic consultant concluded: "...the expected delays would be less at the study area intersections as a result of the lower vehicular traffic generation from the project."

Notwithstanding, due to anticipated delays at the Wolcott Avenue/Verplanck Avenue and Wolcott Avenue/Beekman Street intersections, traffic signal timing modifications are proposed during the AM Peak Hour for the Wolcott Avenue/Verplanck Avenue intersection and during the PM Peak Hours for the Wolcott Avenue/Beekman Street intersection, to address the project related delay increases. With these traffic signal timing modifications, the intersections will operate similar to No-Build conditions without the Project. Additionally, the intersections of Wolcott Avenue/Tompkins Avenue and Beekman Street/West Main Street are proposed to be monitored after occupancy of the Project to assess whether traffic signal warrants will be satisfied at these locations.

Related to transportation, the Amended Project also continues to propose improved pedestrian access to and from the Amended Project, upgraded pedestrian facilities along Branch Street, Bank Street and West Main Street, and pedestrian striping and signing improvements at the intersection of Bank Street and West Main Street. The Amended Project also continues to propose ample bicycle storage and a car share program for its residents.

An updated review of traffic conditions was prepared by the Applicant's consultant, Maser Consultanting, P.A. in a letter dated June 5, 2018 ("Updated Traffic Analysis"). The Updated Traffic Analysis includes the AM Peak Hour and PM Peak Hour trip generated projected for the Amended Proposed Action with 246 dwelling units instead of 307 dwelling units. As expected, the reduced density proposal results in a reduction in traffic generation. The net reduction in trip generation at the AM Peak Hour is 31 (307 units: 155 trips vs. 246 units: 124 trips) and the net reduction in trip generation at the PM Peak Hour is 35 (307 units: 188 vs. 246 units: 153). Notwithstanding the reduction in projected trip generation, the Applicant continues to propose all previously proposed traffic mitigation measures, as described above.

As with the original Study, these projections do not account for any mass transit usage by residents of the development. However, due to the Property's proximity to the Metro-North Train Station it is likely that a portion of residents will utilize mass transit thus reducing the actual trip generation.

The Planning Board's Traffic Consultant, Creighton Manning Engineers, LLP, Albany, N.Y., reviewed the Updated Traffic Analysis and in a memorandum to the Planning Board dated July 3, 2018 concurred that the Amended Project will result in fewer trips than that originally studied.

- **Impact on Energy: The Proposed Action will not have a significant adverse environmental impact on energy.**

Impacts on energy resulting from the Amended Proposed Action remain unchanged from the Planning Board's December 2017 Negative Declaration.

It is anticipated that existing energy infrastructure will continue to serve the Amended Proposed Action and that enough surplus exists to meet potential demand. The Amended Proposed Action does not require a new, or an upgrade to any existing substation.

Several green building techniques have been incorporated into the Amended Project. The building design will allow for the ability to utilize solar energy in the future if and when it becomes feasible.

- **Impact on Noise, Odor and Light: The Proposed Action will not have a significant adverse environmental impact as a result of objectionable odors, noise or light.**

Impacts on noise, odor and light resulting from the Amended Proposed Action remain unchanged from the Planning Board's December 2017 Negative Declaration.

The Amended Proposed Action is not anticipated to generate any noxious odors.

Noise impacts associated with the proposed Amended Project will be limited to temporary impacts generated during construction. Temporary noise impacts associated with construction will be mitigated by limiting construction activities to the hours between 7:00 a.m. and 7:00 p.m. Soil testing was conducted onsite to investigate the depth of the soil and rock conditions. In the area of Bioretention area 1, shale bedrock was found less than 5 feet from the existing grade. In the area of Bioretention area 2, bedrock depths were found to be slightly deeper than 4 feet. If blasting becomes necessary, it will be performed in accordance with all

applicable state and local requirements. In addition, there will be no significant noise impacts post-construction.

All proposed lighting will be fully shielded and dark sky compliant. Lighting levels along the access drive will generally be low (within 0.0 – 1.0 footcandles along the majority of the access drive, with discrete areas of increased intensity under lighting fixtures (up to about 3.0 footcandles). The proposed Lighting Plan shows minimal to no light spillage over property lines. Lighting at the perimeter of the site is negligible.

- **Impact on Human Health: The Proposed Action will not have a significant adverse environmental impact on human health from exposure to new or existing sources of contaminants.**

Impacts on human health resulting from the Amended Proposed Action remain unchanged from the Planning Board's December 2017 Negative Declaration.

According to information available on the NYS DEC Site Remediation Database, the off-site contamination under the following Site Codes identified in the EAF has either completed a remediation program or does not pose a threat to development on the Edgewater Site: V00293, C314112, V00096, 314069, 546031.

- **Consistency with Community Plans and Community Character: The Proposed Action is not inconsistent with adopted community plans and community character.**

Impacts on community plans and community character resulting from the Amended Proposed Action remain unchanged from the Planning Board's December 2017 Negative Declaration.

The Amended Project is consistent with the recommendations and goals identified in the 2007 Comprehensive Plan and 2017 Comprehensive Plan Updates regarding density of developments. The Site is the only property in the City classified in the RD-1.7 Zoning District and the number of proposed dwelling units complies with the provisions of the RD-1.7 District. The transit oriented nature of the Amended Project is consistent with the Comprehensive Plan which seeks to encourage development and allow for increased density of housing in the waterfront/train station area of the City. (2007 Comprehensive Plan, pp. 7 & 17; 2017 Comprehensive Plan Update, p. 10). The density of the Amended Project is also consistent with the surrounding neighborhood which includes the existing Tompkins Terrace and Colonial Springs residential developments.

The Amended Project will create an increased demand for community services such as emergency services and the Beacon City School District. The application was previously referred to the City of Beacon Police and Fire Departments and the general layout has not substantially changed since that time, except to create a "No Parking, Fire Zone" in front of Building 4 to address comments from the Fire Department. The Amended Project will be constructed in accordance with all applicable state and local emergency and fire safety requirements.

The December 2017 Negative Declaration adopted by the Planning Board contains a lengthy discussion of impacts to the Beacon City School District (BCSD). At that time, the Planning Board concluded that based on the information provided the Planning Board's professional planning consultant, the Applicant's professional planning consultant and the BCSD, the addition of 42 school-age children represents the most accurate application of the Rutger's ratios. The Planning Board also considered the instruction budget vs. the total budget of the BCSD in determining the impacts of the Project on the BCSD. The following chart was provided in the December 2017 Negative Declaration to show the net fiscal impacts of 42 school-age children:

	Cost/Student	*# Students*	*Add'l. Costs*	*Revenue*	*Net Impacts*
Instructional Budget	*$17,102*	*42*	*$718,284*	*$810,300*	*+ $92,016*
Total Budget	*$23,116*	*42*	*$970,872*	*$810,300*	*-$160,572*

After considering all testimony and written submissions to the Planning Board on this subject, the Planning Board determined that the addition of 42 school-age children as a result of the Project will not create a significant increased demand on the School District.

The Applicant has submitted revised analysis of the generation of school-age children resulting from the Amended Proposed Action which includes 246 dwelling units instead of 307 dwelling units. The Amended Proposed Action will produce fewer school-age children than the previously studied Proposed Action. According to the City Planner's review of the Applicant's analysis, application of the Rutgers demographic multipliers results in an estimated 36 public school-age children, compared to 42 in the former projection.

Further, based on a July 3, 2018 memorandum from the Beacon City Assessor, the estimated valuation of the Amended Proposed Action remains $34-40 million due to the overall square footage of the development remaining relatively constant despite the reduction in the number of units. Therefore, the fiscal impacts to the BCSD will similarly be less than that which was previously studied for the December 2017 Negative Declaration.

Thus, for the reasons set forth in the December 2017 Negative Declaration and updated herein, the Planning Board finds that the Amended Proposed Action will not have a significant adverse impact on community services including the BSCD.

Based upon all information before the Planning Board to-date, including the revised Full EAF, the Planning Board finds that the Amended Proposed Action will not have any significant adverse impacts upon the environment. This Amended Negative Declaration indicates that no environmental impact statement need be prepared and that the SEQRA process is complete.

Received in the Office of the
City Clerk
July 12, 2018

Exhibit C

RESOLUTION

PLANNING BOARD
BEACON, NEW YORK

PRELIMINARY & FINAL SUBDIVISION APPROVAL
FOR BEACON LOFTS & STORAGE, LLC (11-89 MASON CIRCLE)

Parcel ID# 6055-04-590165

WHEREAS, the Beacon Planning Board received an application for Subdivision Approval, under the provisions of Zoning Code §223-25.C(3), from Beacon Lofts & Storage, LLC (the "Applicant"), for a 2-lot subdivision ("Project"), on property located at 11-89 Mason Circle (Front Street) in the Light Industrial (LI) Zoning District and the Historic District and Landmark Overlay Zone ("HDLO") and designated on the Tax Map of the City of Beacon as Parcel ID# **30-6055-04-590165-00** (the "Property"); and

WHEREAS, Proposed Lot 1 would consist of 351,609 square feet (8.072 acres) and Proposed Lot 2 (approved site of Building 16) would consist of 26,378 square feet (0.674 acres); and

WHEREAS, the Planning Board previously granted Amended Site Plan and Certificate of Appropriateness Approval by Resolution dated December 11, 2018 to eliminate the previously approved construction of Building 9A and retain Building 12 in its current community garden use, demolish Buildings 16, 18, 24, and 25, reconstruct a larger new Building 16 with additional live-work units, and extend and modify existing Building 9 to create two additional live-work units in that building; and

WHEREAS, the Planning Board is the approval authority for the Subdivision pursuant to the City of Beacon Code §195-2 and Zoning Code §223-25.C(3); and

WHEREAS, Zoning Code §223-25.C(3) authorizes the Planning Board, after completion of Site Plan review, to subdivide one or more of the lots or buildings within a project that will continue to be controlled by an approved Site Plan; and

WHEREAS, the subdivision will not change the scope of development on the Property which will continue to be controlled by the Amended Site Plan and Certificate of Appropriateness Approval Resolution dated December 11, 2018; and

WHEREAS, the application consists of application forms, correspondence and plans submitted to the Planning Board; and

WHEREAS, the Subdivision is shown on the drawing, entitled "Preliminary Subdivision Plat prepared for Beacon Lofts & Storage LLC," prepared by TEC Land Surveying, Surveyor, dated August 19, 2020, last revised September 8, 2020; and

WHEREAS, the development of the Property as set forth on the approved Site Plan was the subject of an environmental review conducted by the Planning Board as Lead Agency pursuant to the New York State Environmental Quality Review Act ("SEQRA") which concluded with the Planning Board's adoption of a Negative Declaration on December 17, 2017; and

WHEREAS, the requested subdivision is an additional permit/approval sought as part of the Proposed Action previously evaluated by the Planning Board under SEQRA, and does not create new or different adverse environmental impacts, therefore the Planning Board determined on October 14, 2020 that the Board's Negative Declaration dated December 17, 2017 fully addresses the whole action, including the proposed subdivision approval, and no further SEQRA review is required; and

WHEREAS, the Planning Board reviewed the application at its meetings on September 9, 2020 and October 14, 2020 and considered comments by its consulting engineer and planner; and

WHEREAS, on October 14, 2020 the Planning Board opened a duly noticed public hearing on the application for Subdivision approval concerning the Proposed Action, at which time all those interested were given an opportunity to be heard and the public hearing was closed on October 14, 2020; and

WHEREAS, due to public health and safety concerns related to the current COVID-19 pandemic, the public hearing was duly noticed by publication, mailing and signage in accordance with notice requirements of the Zoning Code of the City of Beacon, and held by videoconference in accordance with the Governor's Executive Orders which suspend the "in-person" requirements of the NYS Open Meetings Law and provide alternative means by which to conduct public meetings and hearings remotely; and

WHEREAS, the Planning Board is fully familiar with the Proposed Action and has reviewed the Proposed Action relative to all applicable provisions of the City of Beacon Code.

NOW, THEREFORE, BE IT RESOLVED, that the Planning Board hereby grants Preliminary Subdivision Plat Approval for the Project, as shown on the application materials enumerated above.

BE IT FURTHER RESOLVED, that the Planning Board hereby finds that the Final Subdivision Plat will not be substantively changed from the Preliminary Subdivision Plat and hereby determines that a public hearing on the Final Plat is not required.

BE IT FURTHER RESOLVED, hat the Planning Board hereby grants Final Subdivision Plat Approval to the Project, as shown on the application materials enumerated above, subject to the following conditions and modifications set forth below and any other requirements which must be met by law:

A. The following conditions shall be fulfilled prior to the signing of the Final Subdivision Plat by the Chairman of the Planning Board:

1. All application review fees shall be paid in full.

2. The Applicant shall seek and obtain all required permits and/or approvals from the appropriate agencies for the Project, including but not necessarily limited to approval from the Dutchess County Department of Health, and shall meet all conditions contained in such approvals, as required therein.

3. The comments contained in the City Engineer's letter to the Planning Board dated October 6, 2020, and all comments in any subsequent letter(s) issued, shall be fulfilled to the satisfaction of the City Engineer.

4. All existing and proposed easements, as applicable, shall be shown on the Final Subdivision Plat to the satisfaction of the City Engineer and City Attorney. Proposed easement agreements, declarations of restrictive covenants or other appropriate documents corresponding with the easements and notes shown on the Final Subdivision Plat shall be prepared, as applicable, and submitted to the City Attorney for review as to form, and satisfactory assurance delivered to the City Attorney that those documents shall be recorded in the Dutchess County Clerk's Office in appropriate order in relationship to the timing of the filing of the Subdivision Plat, and that a copy of the documents with proof of their recording will be promptly submitted to the Planning Board Secretary for filing with a copy to the City Attorney.

When the conditions above have been satisfied, six (6) sets of the above referenced plans revised as per the conditions above shall be submitted for endorsement by the Planning Board Chairman. One set of the endorsed plans will be returned to the Applicant, one set will be retained by the City Clerk, one set will be provided to the Planning Board, and one set each will be forwarded to the Building Inspector, City Engineer and City Planner.

B. The following are general conditions which shall be fulfilled:

1. All conditions, set forth in the any previous Planning Board Resolution related to the Property, and not explicitly superseded herein, shall remain in full force and effect. Proposed Lot 1 and Proposed Lot 2 will continue

to be controlled by the Amended Site Plan approved by the Planning Board on December 11, 2018 and any approved amendment thereof.

2. The Building Inspector and the City Engineer shall have the right to direct the Applicant to cause the placement, cleaning and/or repair of sedimentation and erosion control devices wherever and whenever deemed necessary during construction.

3. The Applicant shall be responsible for the payment of all application review costs incurred by the City in its review and approval of this project. Such fees shall be paid by the Applicants within thirty (30) days of each notification by the City that such fees are due. If such fees are not paid within the thirty (30) day period, and an extension therefor has not been granted by the City, this resolution shall be rendered null and void.

4. As used herein, the term "Applicant" shall include the Applicant and the Applicant's heirs, successors and assigns, and where applicable its contractors and employees.

5. If any of the conditions enumerated in this resolution upon which this approval is granted are found to be invalid or unenforceable, then the integrity of this resolution and the remaining conditions shall remain valid and intact.

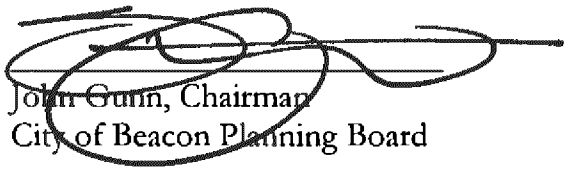
6. The approval granted by this resolution does not supersede the authority of any other entity.

7. The Applicant must return for approval from the Planning Board if any changes to the endorsed plans and/or this resolution of approval are subsequently desired other than changes determined to be field changes by the Building Inspector or City Engineer. The Planning Board, in its discretion, shall determine the appropriate procedures for consideration of the proposed revision, and whether such revision is material enough to require further environmental analysis and/or further project review, as the Board may deem appropriate.

8. Conditional approval of the Final Subdivision Plat shall expire one hundred eighty (180) days from the date of the adoption of this Resolution unless all items in Condition A above have been certified as completed and the Final Plat has been submitted for endorsement by the Planning Board Chairman, or unless a written request for an extension of Final Subdivision Plat Approval is granted. The Planning Board may grant ninety (90) day extensions to said time period.

9. Once the Final Subdivision Plat has been endorsed by the Planning Board Chairman, said Plat must be filed in the Dutchess County Clerk's Office within sixty-two (62) days. After said filing, two (2) copies of the Final Plat certified by Dutchess County and showing the assigned Filed Map number shall be submitted by the Applicant to the Planning Board Secretary. One (1) certified copy of the Final Plat shall be retained by the Planning Board and the other certified copy shall be transmitted to the City Clerk along with a signed copy of this Resolution and proof of recording of the easement(s) and other documents described above.

Resolution Adopted: October 14, 2020
Beacon, New York



John Gunn, Chairman
City of Beacon Planning Board

10/15/, 2020
Dated

Motion by Mr. Williams, seconded by Mr. Byrne:

Kevin Byrne	Voting AYE	Leonard Warner	Voting EXCUSED
Karen Quiana	Voting AYE	J. Randall Williams	Voting AYE
Jill Reynolds	Voting EXCUSED	John Gunn, Chairman	Voting AYE

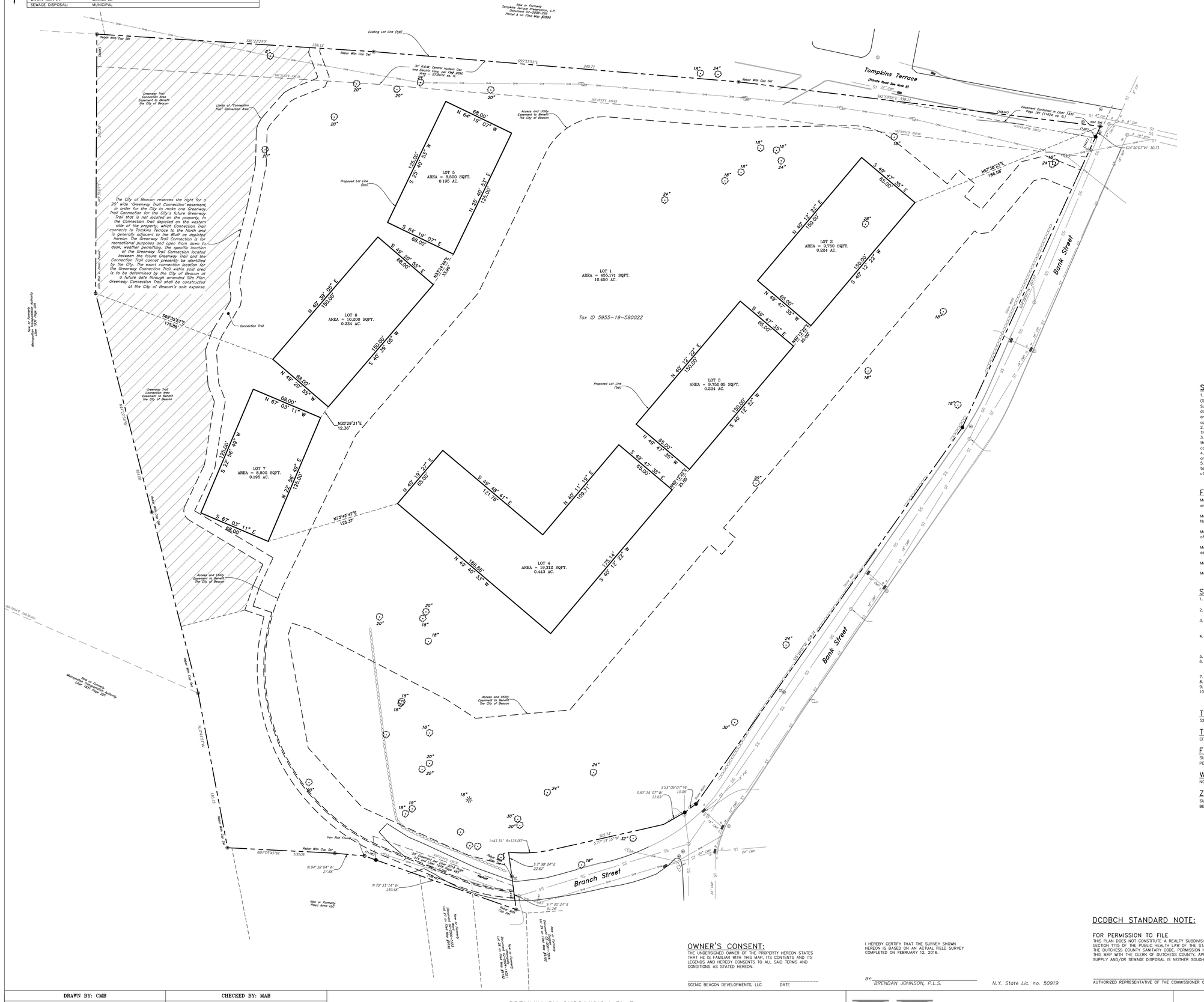
Approved: 4-0

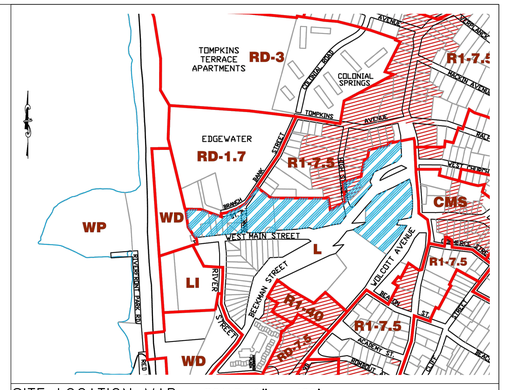
Received in the Office of the
City Clerk
October 16, 2020

Plat

PROJECT INFORMATION:

PARCEL OWNER:	SCENIC BEACON DEVELOPMENTS, LLC; 28 CREEK DRIVE, BEACON, NY 12508
PROJECT ENGINEER:	HUDSON LAND DESIGN P.C., 174 MAIN STREET, BEACON NY 12508
PROJECT LOCATION:	18-30 EDGEWATER PLACE, BEACON, NY 12508
TAX PARCEL ID:	5955-19-590022
PARCEL AREA:	±11.97-ACRES
WATER SUPPLY:	MUNICIPAL
SEWAGE DISPOSAL:	MUNICIPAL





SITE LOCATION MAP SCALE: 1" = 400'

LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- 250 EXISTING MAJOR CONTOUR
- 252 EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- OHW EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- SS EXISTING SEWER SERVICE LINE
- S EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- W EXISTING WATER LINE
- WS EXISTING WATER SERVICE LINE
- EXISTING WELL
- EXISTING HYDRANT
- EXISTING WATER SHUT OFF VALVE
- EXISTING WATER VALVE
- EXISTING STORM WATER LINE
- EXISTING ROOF LEADER
- EXISTING CATCH BASIN
- PROPOSED PROPERTY LINE

SUBDIVISION NOTES:

1. This subdivision is approved under the provisions of the Beacon Zoning Law section 223-25 C (3), and is based upon a development plan (Site Plan) prepared by Aryeh Siegel, AIA, Hudson Land Design, Civil Engineer; Landscape Restorations, Landscape Designer, and TEC Land Surveying, entitled "EDGEWATER Site Plan and Special Use Permit Application" Sheets Sheets 1-16, dated January 31, 2017, with last revision date April 29, 2020, which received Site Plan Approval issued by the City of Beacon Planning Board, by Resolution dated September 11, 2018, and any amendment to such Site Plan Drawings or Site Plan Resolution as may be duly adopted by the Planning Board in the future ("the approved Site Plan").
2. All Development on each of the seven lots in this subdivision continues to be subject to all requirements shown on the approved Site Plan. The approval of this Subdivision does not authorize any development within any Lot other than as shown on the approved Site Plan.
3. All seven lots on the Subdivision are also obligated to maintain their respective properties in compliance with the applicable provisions of the City of Beacon Site Plan regulations which provide that the continued validity of any Certificate of Occupancy shall be subject to continued conformance with the approved Site Plan or any amendments thereto, and with any conditions thereof (section 223-25 A).
4. Non-exclusive access for vehicular and pedestrian circulation and parking is provided for the benefit of proposed Lots 2 though 7 in the areas designated for such purposes on the approved Site Plan.
5. A non-exclusive undefined easement for access to utilities is provided for the benefit of Lots 2 through 7 over the entire area of Lot 1 to provide Lots 2 through 7 with access to gas, electric, and other utilities that run underground or overground throughout Lot 1, where such utilities currently stand or as they may be relocated on Lot 1.

FILED MAP REFERENCE:

Map entitled "Edgewater Final Subdivision Plat For Consolidation Prepared for Scenic Beacon Developments, LLC" prepared by TEC Land Surveying and filed in the Dutchess County Clerk's office on August 6, 2020 as filed map No. 12669.

Map entitled "Ash kill Landing North" prepared by Peter R. Hustis, LS and filed in the Dutchess County Clerks office on May 10, 1984 as Map No. 6889.

Map entitled "Lands of JDG Realty Corporation" prepared by Rohde & Soyka Consulting Engineers, P.C. and filed in the Dutchess County Clerks office on February 25, 1991 as Map No. 9192.

Map entitled "Property of Ethel G. Whittemore" prepared by Robert Monell and filed in the Dutchess County Clerks office on October 16, 1959 as Map No. 2890.

Map entitled "Map of A Survey Prepared for Deborah Krzeczowski" prepared by Colin M. Houston, PLS, dated May 17, 2000.

Map obtained from MYS OGS shows lands underwafer.

SURVEY NOTES:

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2. UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2, OF THE NEW YORK STATE EDUCATION LAW.
3. ONLY BOUNDARY SURVEY MAPS WITH THE SURVEYOR'S EMBOSSED OR RED INKED SEAL ARE GENUINE TRUE AND CORRECT COPIES OF THE SURVEYOR'S ORIGINAL WORK AND OPINION. A COPY OF THIS DOCUMENT WITHOUT A PROPER APPLICATION OF THE SURVEYOR'S EMBOSSED OR RED INKED SEAL SHOULD BE ASSUMED TO BE AN UNAUTHORIZED COPY.
4. CERTIFICATIONS ON THIS BOUNDARY SURVEY MAP SIGNIFY THAT THE MAP WAS PREPARED IN ACCORDANCE WITH THE CURRENT EXISTING CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS, INC. THE CERTIFICATION IS LIMITED TO PERSONS FOR WHOM THE BOUNDARY SURVEY MAP IS PREPARED, TO THE TITLE COMPANY, TO THE GOVERNMENTAL AGENCY, AND TO THE LENDING INSTITUTION LISTED ON THIS BOUNDARY SURVEY MAP.
5. THE CERTIFICATIONS HEREIN ARE NOT TRANSFERABLE.
6. THE LOCATION OF UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS ARE NOT ALWAYS KNOWN AND OFTEN MUST BE ESTIMATED. IF ANY UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS EXIST OR ARE SHOWN, THE IMPROVEMENTS OR ENCROACHMENTS ARE NOT COVERED BY THIS CERTIFICATE.
7. SUBJECT TO THE FINDINGS OF A CURRENT TITLE SEARCH.
8. SUBJECT TO COVENANTS, EASEMENTS, RESTRICTIONS, CONDITIONS AND AGREEMENTS OF RECORD.
9. SUBJECT TO ANY RIGHT, TITLE OR INTEREST THE PUBLIC MAY HAVE FOR HIGHWAY USE.
10. BEARINGS AND NORTH SHOWN HEREON ARE REFERENCED TO NAD 83-NY EAST USING NYSNET RTN GPS.

TOTAL PARCEL AREA:

521,182 SF OR 11.97 ACRES

TAX MAP REFERENCE:

CITY OF BEACON 5955-19-590022

FLOOD BOUNDARY:

SUBJECT PARCEL IS LOCATED IN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANGE FLOODPLAIN) PER PANEL 36027C0463E DATED MAY 2, 2012.

WETLAND NOTE:

NO NYSDEC OR FEDERAL WETLANDS WERE FOUND ONSITE.

ZONING:

SUBJECT PARCEL IS LOCATED WITHIN THE (RD-1.7) DESIGN RESIDENCE DISTRICT AS PER MAP ENTITLED "CITY OF BEACON, NY ZONING" PREPARED BY LANC & TULLY ENGINEERING AND SURVEYING, P.C. REVISED: JULY 13, 2020.

OWNER'S CONSENT:

THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

SCENIC BEACON DEVELOPMENTS, LLC _____ DATE

I HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON IS BASED ON AN ACTUAL FIELD SURVEY COMPLETED ON FEBRUARY 12, 2016.

BY: _____ *BRENDAN JOHNSON, P.L.S.* *N.Y. State Lic. no. 50919*

DCDBCH STANDARD NOTE:

FOR PERMISSION TO FILE

THIS PLAN DOES NOT CONSTITUTE A REALTY SUBDIVISION AS DEFINED BY ARTICLE XI, TITLE II, SECTION 1115 OF THE PUBLIC HEALTH LAW OF THE STATE OF NEW YORK, AND ARTICLE XI OF THE DUTCHESS COUNTY SANITARY CODE. PERMISSION IS HEREBY GRANTED FOR THE FILING OF THIS MAP WITH THE CLERK OF DUTCHESS COUNTY. APPROVAL FOR ARRANGEMENTS FOR WATER SUPPLY AND/OR SEWAGE DISPOSAL IS NEITHER SOUGHT NOR GRANTED.

_____ _____
AUTHORIZED REPRESENTATIVE OF THE COMMISSIONER OF HEALTH DATE

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE _____ DAY OF _____ 20_____ SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____ 20_____ BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

DRAWN BY: CMB				CHECKED BY: MAB			
REVISIONS:				REVISIONS:			
NO.	DATE	DESCRIPTION	BY	NO.	DATE	DESCRIPTION	BY

PRELIMINARY SUBDIVISION PLAT
SCALE: 1" = 30'
GRAPHIC SCALE
30 0 15 30 60 120
(IN FEET)
1 inch = 30 ft.

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
13 CHAMBERS ST., NEWBURGH, NEW YORK 12550
PH: 845-440-6926

SEAL

PRELIMINARY SUBDIVISION PLAT
EDGEWATER
18-30 EDGEWATER PLACE
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5955-19-590022

JOB #:	2016:015
DATE:	12/27/2023
SCALE:	AS NOTED
TITLE:	PL-1
SHEET:	1 OF 1

UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW

`

CUDDY +FEDER LLP

300 Westage Business Center, Suite 380
Fishkill, New York 12524
T 845 896 2229
F 845 896 3672
cuddyfeder.com

Taylor M. Palmer
tpalmer@cuddyfeder.com

January 30, 2024

VIA E-MAIL
AND HAND DELIVERY
Hon. John Gunn
and Members of the Planning Board
City of Beacon
1 Municipal Plaza
Beacon, New York 12508

Re: Scenic Beacon Developments, LLC – Application for Internal Property Subdivision
Supplemental Submission
Premises: 18-30 Edgewater Place Beacon, New York
Tax Parcel ID: 5955-19-590022

Dear Chairman Gunn and Members of the Planning Board:

On behalf of Scenic Beacon Developments, LLC (the "Applicant"), the owner of the above-referenced Premises, we respectfully submit this letter and the referenced enclosure in furtherance of an Application for an Internal Property Subdivision (the "Application") relating to the Applicant's previously approved Edgewater project ("Edgewater").

As is further detailed in the Applicant's initial submission to this Board dated December 27, 2023, the Applicant is seeking to internally subdivide the Edgewater property into a total of seven (7) lots. Specifically, the Applicant proposes to place Buildings 1, 2, 5, 6 and 7 on their own lots, and Buildings 3 & 4 on a single lot. Through this Application, the Applicant does not seek to alter or change any of the buildings, uses or dimensions previously approved by the City, or any commitments or conditions contained in the underlying approvals. Instead, the Applicant is proposing to redraw the lot lines to assist in securing construction and permanent financing for the project.

The purpose of this supplemental submission is to provide the Planning Board and its consultants with the enclosed Preliminary Subdivision Plat entitled "Edgewater" prepared by Brendan Johnson, PLS, Johnson Surveying, LLC, dated January 24, 2024, detailing the proposed lots lines for the Internal Property Subdivision.

The Applicant respectfully requests that this matter be placed on the Planning Board's February 14th meeting agenda, at which time the Applicant looks forward to introducing the Application. In the meantime, should the Planning Board or City Staff have any questions, please do not hesitate to contact me. Thank you in advance for your consideration.

Very truly yours,

Taylor M. Palmer

Enclosures

cc: Bruce Flower, City Building Inspector
Jennifer L. Gray, Esq., Planning Board Attorney
John Clarke Planning and Design
John Russo, P.E., Lanc & Tully Engineering & Surveying, P.C.
Michael A. Bodendorf, P.E., Hudson Land Design Professional Engineering, P.C.
Brendan Johnson, PLS, Johnson Surveying, LLC
The Community Preservation Corporation
Allison Fausner, Esq.

SURVEY NOTES

1. Copyright Johnson Surveying. All Rights Reserved. Reproduction or copying of this document may be a violation of copyright law unless permission of the author and / or copyright holder is obtained.

2. Unauthorized alteration or addition to a survey map bearing a licensed land surveyor's seal is a violation of section 7209, sub-division 2, of the New York State Education Law.

3. Only boundary survey maps with the surveyor's embossed or red inked seal are genuine true and correct copies of the surveyor's original work and opinion. A copy of this document without a proper application of the surveyor's embossed or red inked seal should be assumed to be an unauthorized copy.

4. Certifications on this boundary survey map signify that the map was prepared in accordance with the current existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors, Inc. The certification is limited to persons for whom the boundary survey map is prepared, to the title company, to the governmental agency, and to the lending institution listed on this boundary survey map.

5. The certifications herein are not transferable.

6. The location of underground improvements or encroachments are not always known and often must be estimated. If any underground improvements or encroachments exist or are shown, the improvements or encroachments are not covered by this certificate.

7. Subject to the findings of a current title search.

8. Subject to covenants, easements, restrictions, conditions and agreements of record.

9. Subject to any right, title or interest the public may have for highway use.

10. Bearings and North shown hereon are referenced to NAD 83-NY East using NYSNET RTN GPS.

TOTAL PARCEL AREA

521,182 Square Feet
11.97 Acres

TAX MAP REFERENCE

City of Beacon, County of Dutchess, State of New York
5955-19-590022

FLOOD BOUNDARY

Subject parcel is located in Zone X (Area Determined to be outside of the 0.2% annual chance floodplain) as per Panel 36027C0463E Dated May 2, 2012.

WETLAND NOTE

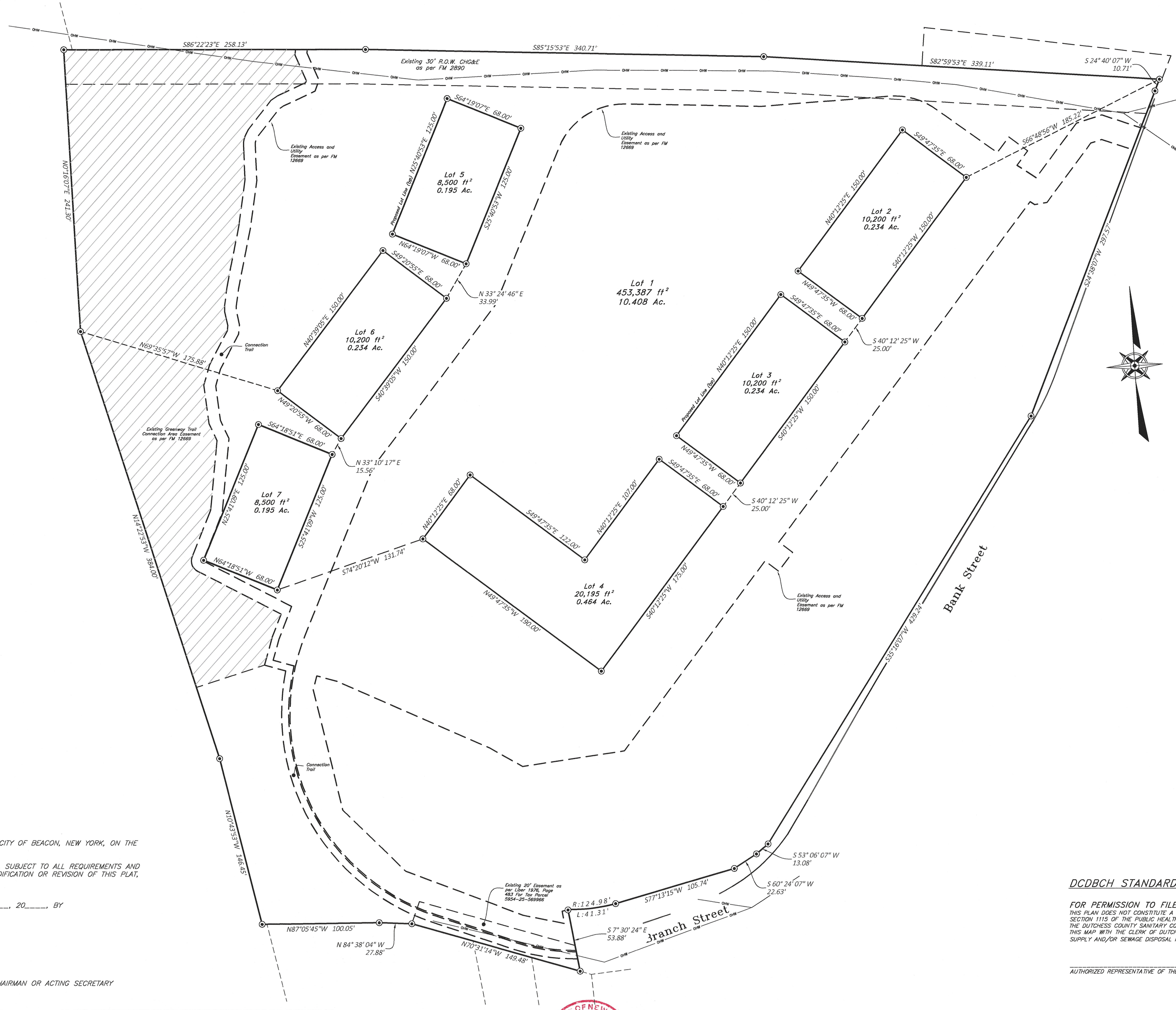
No NYSDEC or Federal Wetlands were found on site.

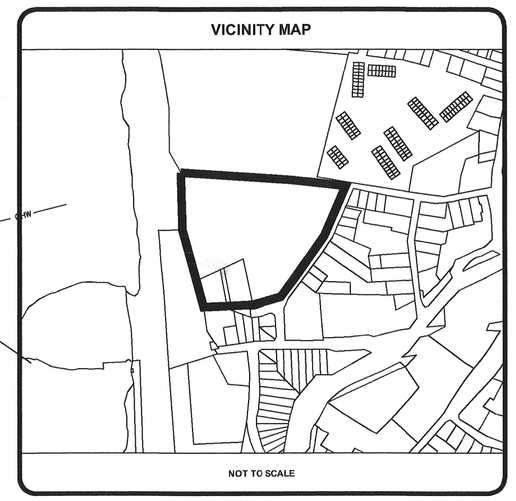
ZONING

Subject Parcel is located within the design residence district (RD-1.7) as per map entitled "City of Beacon, NY Zoning" prepared by Lanc & Tully Engineering and Surveying, P.C. Revised July 13, 2020

FILED MAP REFERENCE

Map entitled "Edgewater Final Subdivision Plat" prepared by TEC Land Surveying and filed in the Dutchess County Clerks office on August 6, 2020 as Map No. 12669





SUBDIVISIONS NOTES

1. This subdivision is approved under the provisions of the Beacon Zoning Law section 223-25 C (3), and is based upon a development plan (Site Plan) prepared by Aryeh Siegel, AIA, Hudson Land Design, Civil Engineer, Landscape Restorations, Landscape Designer; and TEC Land Surveying, entitled "EDGEWATER Site Plan and Special Use Permit Application" Sheets Sheets 1-16, dated January 31, 2017, with last revision date April 29, 2020, which received Site Plan Approval issued by the City of Beacon Planning Board, by Resolution dated September 11, 2018, and any amendment to such Site Plan Drawings or Site Plan Resolution as may be duly adopted by the Planning Board in the future ("the approved Site Plan").
2. All Development on each of the seven lots in this subdivision continues to be subject to all requirements shown on the approved Site Plan. The approval of this Subdivision does not authorize any development within any Lot other than as shown on the approved Site Plan.
3. All seven lots on the Subdivision are also obligated to maintain their respective properties in compliance with the applicable provisions of the City of Beacon Site Plan regulations which provide that the continued validity of any Certificate of Occupancy shall be subject to continued conformance with the approved Site Plan or any amendments thereto, and with any conditions thereof (section 223-25 A).
4. Non-exclusive access for vehicular and pedestrian circulation and parking is provided for the benefit of proposed Lots 2 though 7 in the areas designated for such purposes on the approved Site Plan.
5. A non-exclusive undefined easement for access to utilities is provided for the benefit of Lots 2 through 7 over the entire area of Lot 1 to provide Lots 2 through 7 with access to gas, electric, and other utilities that run underground or overground throughout Lot 1, where such utilities currently stand or as they may be relocated on Lot 1.

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE CITY OF BEACON, NEW YORK, ON THE

_____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20____, BY

_____ CHAIRMAN

_____ SECRETARY

IN ABSENCE OF THE CHAIRMAN OR SECRETARY, THE ACTING CHAIRMAN OR ACTING SECRETARY RESPECTIVELY MAY SIGN IN THIS PLACE.

JOHNSON SURVEYING
BRENDAN JOHNSON, PLS
10 Meadow Lane
Pleasant Valley, NY 12569
Phone No. (845) 380-0528
johnsonboundaries@gmail.com
Copyright 2014

rev.	date	description

I HEREBY CERTIFY THAT THE SURVEY SHOWN HEREON IS BASED ON AN ACTUAL FIELD SURVEY COMPLETED ON FEBRUARY 12, 2016.

BY: _____
BRENDAN JOHNSON, P.L.S.

STATE OF NEW YORK · BRENDAN JOHNSON · LICENSED LAND SURVEYOR · 050919

N.Y. State Lic. No. 50919

OWNER'S CONSENT:

THE UNDERSIGNED OWNER OF THE PROPERTY HEREON STATES THAT HE IS FAMILIAR WITH THIS MAP, ITS CONTENTS AND ITS LEGENDS AND HEREBY CONSENTS TO ALL SAID TERMS AND CONDITIONS AS STATED HEREON.

_____ SCENIC BEACON DEVELOPMENTS, LLC

_____ DATE

DCDBCH STANDARD NOTE:

FOR PERMISSION TO FILE

THIS PLAN DOES NOT CONSTITUTE A REALTY SUBDIVISION AS DEFINED BY ARTICLE XI, TITLE II, SECTION 1115 OF THE PUBLIC HEALTH LAW OF THE STATE OF NEW YORK, AND ARTICLE XI OF THE DUTCHESS COUNTY SANITARY CODE. PERMISSION IS HEREBY GRANTED FOR THE FILING OF THIS MAP WITH THE CLERK OF DUTCHESS COUNTY. APPROVAL FOR ARRANGEMENTS FOR WATER SUPPLY AND/OR SEWAGE DISPOSAL IS NEITHER SOUGHT NOR GRANTED.

_____ AUTHORIZED REPRESENTATIVE OF THE COMMISSIONER OF HEALTH

_____ DATE

EDGEWATER

PRELIMINARY SUBDIVISION PLAT PREPARED FOR EDGEWATER

CITY OF BEACON, COUNTY OF DUTCHESS, STATE OF NEW YORK

tax id	5955-19-590022
address	
date	1/24/24
drawn	BJ
scale	1"=40'
checked	BJ
project no.	24-004
project name	EDGEWATER
sheet	1 OF 1

LANC & TULLY
Engineering and Surveying, P.C.

February 12, 2024

Mr. John Gunn
Beacon Planning Board Chair
City of Beacon
1 Municipal Plaza
Beacon, NY 12508

RE: Edgewater
Internal Subdivision
Tax No. 5955-19-590022
City of Beacon

Dear Mr. Gunn:

My office has received the following regarding the proposed internal subdivision of the Edgewater project:

- Correspondence dated December 27, 2023, and January 30, 2024, from Cuddy & Feder.
- Application for Subdivision Approval dated December 26, 2023.
- Part 3 of the Full Environmental Assessment Form, with the reasons supporting the SEQR determination, as previously issued for the project.
- Copy of the Preliminary & Final Subdivision Approval as previously issued for the project.
- Plan titled "Preliminary Subdivision Plat prepared for Edgewater", dated January 24, 2024, as prepared by Johnson Surveying.

The applicant is proposing an internal subdivision of the buildings in accordance with Section 223-25, Paragraph C(3) of the City of Beacon Code. Based upon our review of the submitted subdivision plat, we have no comments.

If you have any questions, or require any additional information, please do not hesitate to contact our office.

Very truly,
LANC & TULLY, P.C.

John Russo, P.E.

cc: Natalie Quinn, Planner
Jennifer Gray, Esq.
Bruce Flower, Building Inspector

P.O. Box 687, Goshen, New York 10924 | (845) 294-3700
www.lanctully.com

KARC
PLANNING CONSULTANTS, INC.

TO: John Gunn, Chair, and the City of Beacon Planning Board

FR: KARC Planning Consultants, Inc.

DATE: February 13, 2024

RE: 18-30 Edgewater Place Subdivision, Scenic Beacon Developments, LLC

I have reviewed the following materials regarding the proposed internal property subdivision at 18-30 Edgewater Place:

- Cover letters by Taylor M. Palmer, Cuddy + Feder LLP, dated January 30, 2024 & December 27, 2023
- Application for Subdivision Approval, dated December 26, 2023
- Copy of Amended Negative Declaration for the Edgewater project, dated July 10, 2018
- Copy of Preliminary & Final Subdivision Approval for Beacon Lofts & Storage, LLC (11-19 Mason Circle), adopted October 14, 2020
- Plan titled "Preliminary Subdivision Plat Edgewater" by Hudson Land Design, dated 12/27/2023
- Plan titled "Preliminary Subdivision Plat Prepared for Edgewater" by Johnson Surveying, dated January 24, 2024

Project Description:
The Applicant is proposing to internally subdivide the Edgewater property into a total of seven (7) lots for financing purposes. Specifically, the Applicant proposes to place Buildings 1, 2, 5, 6 and 7 on their own lots, and Buildings 3 & 4 on a single lot.

Comments & Recommendations:

1. **Parking & Common Areas:** Pursuant to Section 223-25(C)(3) the Board may wish to require reciprocal easements or agreements to ensure that previously approved parking and common areas support the use on each newly created lot in a manner satisfactory to the Board.

If you have any questions or need additional information, please feel free to contact me.

Natalie Quinn
Beacon Planning Consultant

Cc: Bruce Flower, Building Inspector
Jennifer L. Gray, Esq., City Attorney
John Russo, P.E., City Engineer
Taylor M Palmer, Esq., Attorney for the Applicant

City of Beacon Planning Board Agenda
02/14/2024

Title:

Single-Family House - 56 Townsend Street, Lot 8

ATTACHMENTS

56 Townsend, Lot 8 PB 2.14.24 ARB Submission.pdf

ARCHITECTURAL REVIEW BOARD APPLICATION

Date: 1/22/2024

Project Address: 56 Townsend St. (Lot 08)

Project Architect/Engineer: Anthony Coppola

Owner/Builder: Rieger Homes, Inc.

Contact Phone No.: 914-447-4293 Email: IRieger@riegerhomes.com

Approval Requested: ____ Certificate of Appropriateness (sign or façade change) ✓ New Single-Family House

Color/Materials:

Siding: Combination Vinyl Clapboard + Board + Batten.

Roofing: Dual Black Asphalt Shingles

Windows: Color: Black Type: Vinyl

Trim: Black + Tuxedo.

Garage Door: Side entry - Basement

Stone/Brick: None

Signature of Owner

Applications for sign approval must also submit a sign permit application & supporting documents

FOR OFFICE USE ONLY:

The Architectural Review Board has reviewed the plans submitted for approval for the project listed above and has determined:

Plan Denied _____ (Date)

Plan Approved _____ (Date)

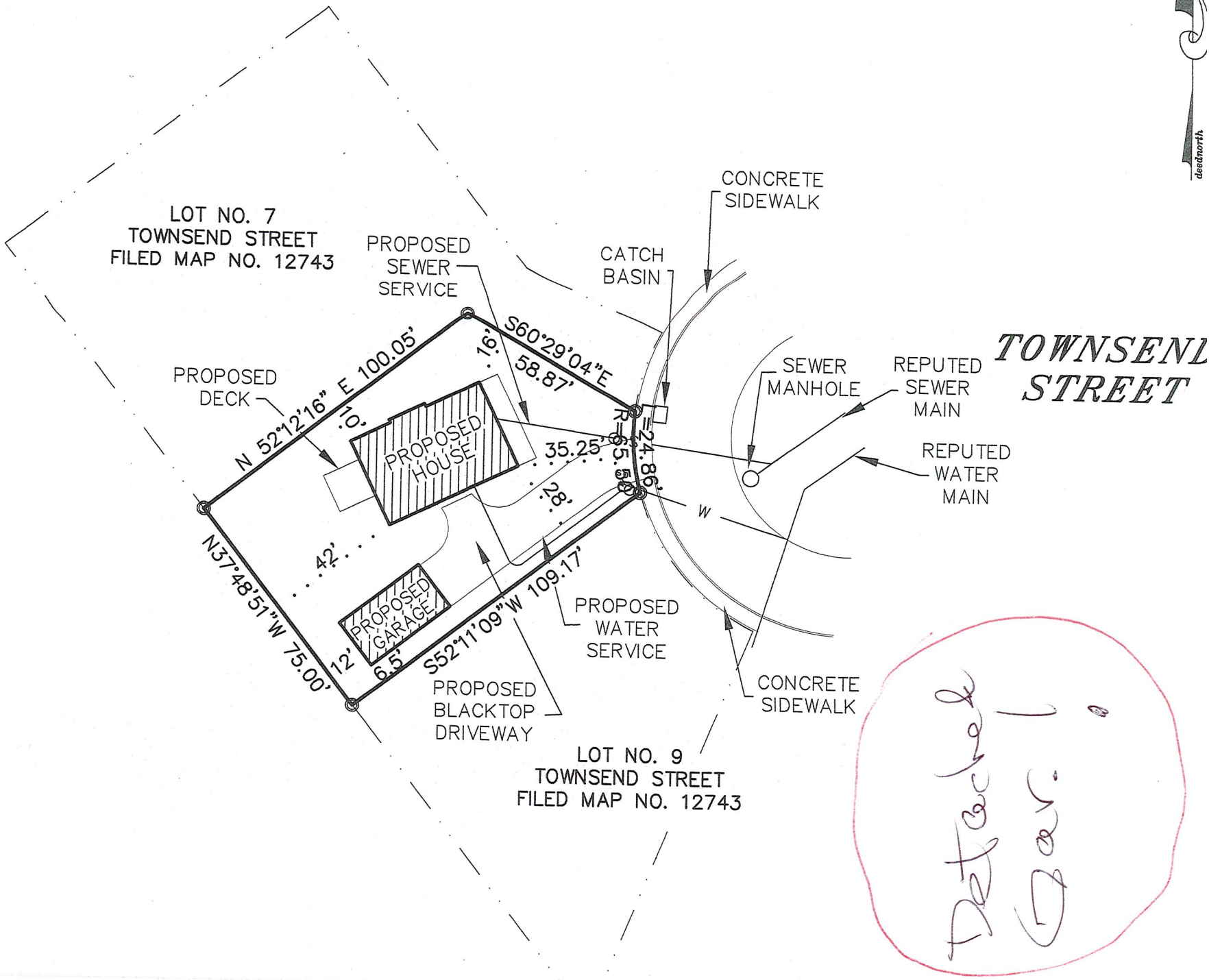
Subject to the following:

_____

_____

FEE: $100.00

1343


LOT NO. 7
TOWNSEND STREET
FILED MAP NO. 12743
PROPOSED SEWER SERVICE
CATCH BASIN
CONCRETE SIDEWALK
TOWNSEND STREET
PROPOSED DECK
N 52°12'16" E 100.05'
10'
16'
S60°29'04"E
58.87'
R=65.50'
24.86'
35.25'
28'
PROPOSED HOUSE
SEWER MANHOLE
REPUTED SEWER MAIN
REPUTED WATER MAIN
W
42'
N37°48'51"W 75.00'
12'
6.5'
PROPOSED GARAGE
S52°11'09"W 109.17'
PROPOSED WATER SERVICE
CONCRETE SIDEWALK
PROPOSED BLACKTOP DRIVEWAY
LOT NO. 9
TOWNSEND STREET
FILED MAP NO. 12743

Date: January 18, 2024

Subject: Rieger Homes lot #08 / 56 Townsend Street

Proposed Exterior finishes for review by the planning board

The Brett (Craftsman) (Lot #08)

Exterior Materials Are As Follows:

Location, General	Location, Specific & Style	Color
Front Elevation:	Front Board & Batten	Color/ Forest
	Front Stained Wood Porch Girders, Porch Post, & Porch Gable Pediment	Color/ Sealer - Stain
Sides & Rear Elevation:	Clapboard:	Color/ Forest
Details:	Trim Details Will Include Corners, Horizontal Band Boards, "J" Channel, etc.	Color / Black, Tuxedo & Forest
	Facia, Soffit, Drip Edge, Windows, Porch Ceiling & Gutters	Color/ Black
Main Roof:	Asphalt shingles	Color/ Dual Black,
Porch Roof:	Metal Standing Seam	Color/ Black

Manufacturer of Materials Proposed Above Are As Follows:

Vinyl Siding Materials Including:

Mainstreet Clapboard & 7" Board & Batten Styles By: **CERTAINTEED SIDING PRODUCTS**

Main Roof/ Asphalt Shingles/ By: or equal **IKO Cambridge**

Black Railings – (As Needed Per Code) or equal **RDI Railings by Barrette**

Front Porch: Posts, Girders & Pediment- Structural Framing Wrapped w/ **Clear /Stained Cedar Boards**

Sealer / Stain For Wood Trim / By: or equal **DuraSeal by Minwax**

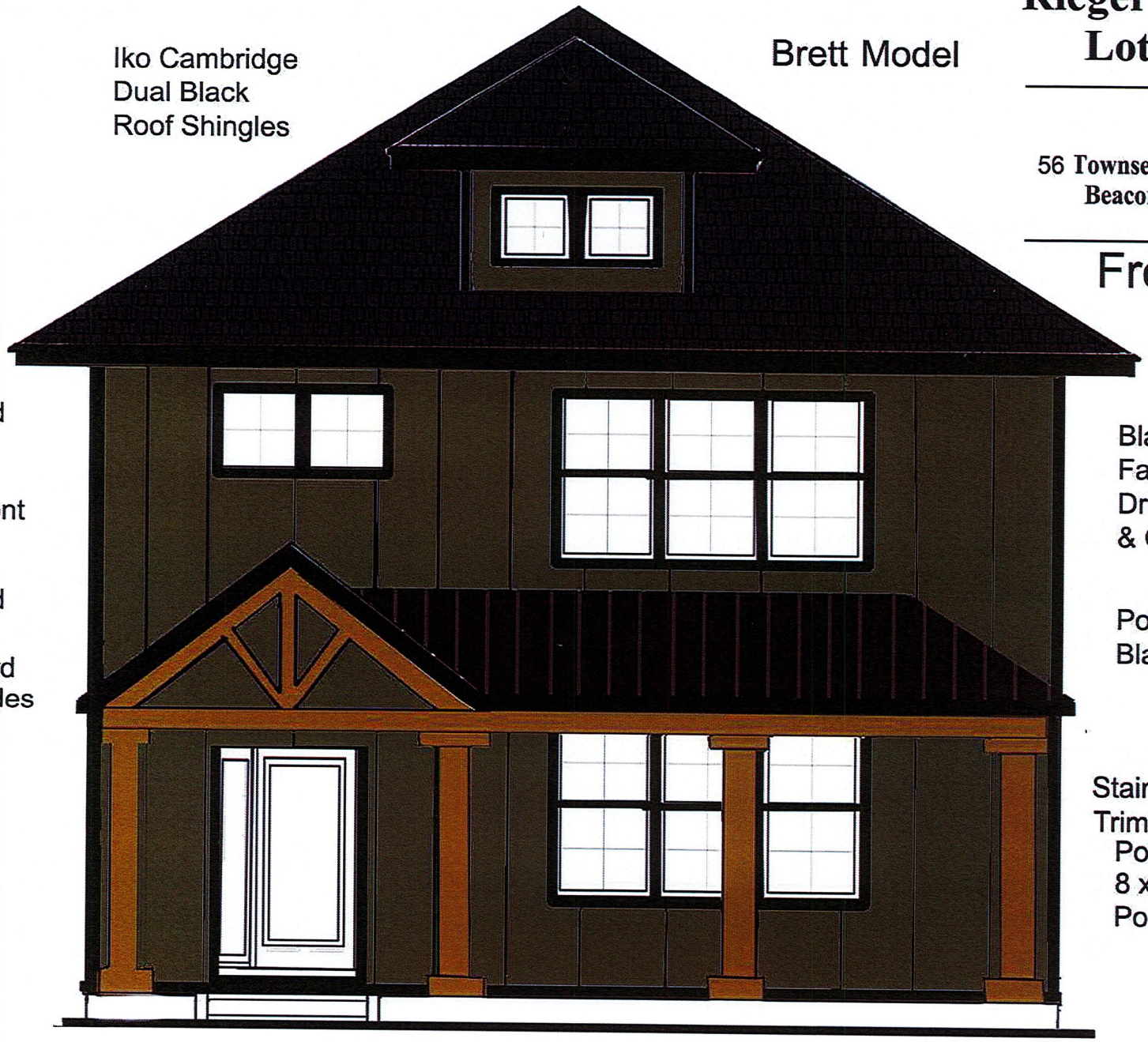
Rieger Homes
Lot # 08

56 Townsend Street,
Beacon, NY

Front

Brett Model

Iko Cambridge
Dual Black
Roof Shingles



Certainteed
7" Board &
Batten
Forest - Front

Certainteed
Mainstreet
4" clapboard
Forest-3 sides

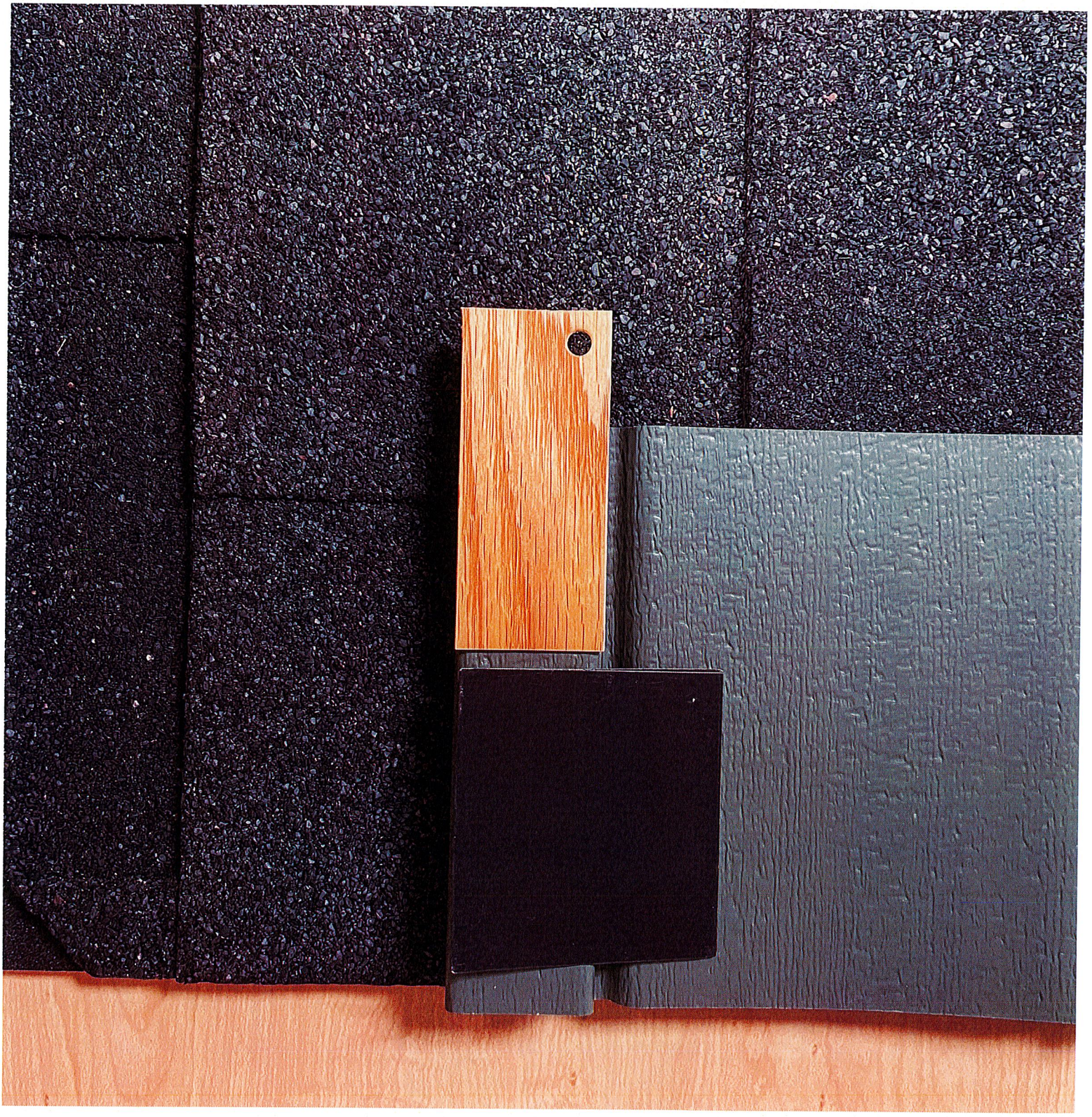
Black
Facia, Soffit,
Drip Edge,
& Gutters

Porch Roof
Black Metal

Stained Woodgrain
Trim-
Porch girders
8 x 8 Porch Posts
Porch gable pediment

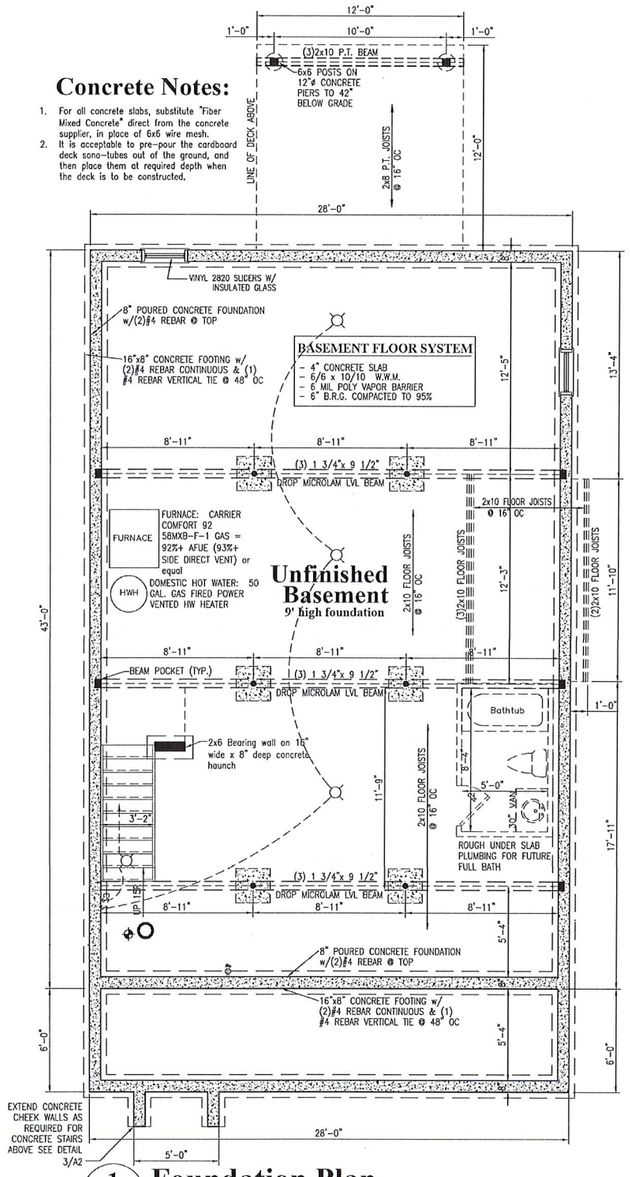
1345

For: BK08 / 56 Townsend Street, Beacon, NY



Concrete Notes:

1. For all concrete slabs, substitute "Fiber Mixed Concrete" direct from the concrete supplier, in place of 6x6 wire mesh.
2. It is acceptable to pre-pour the cardboard deck sono-tubes out of the ground, and then place them at required depth when the deck is to be constructed.

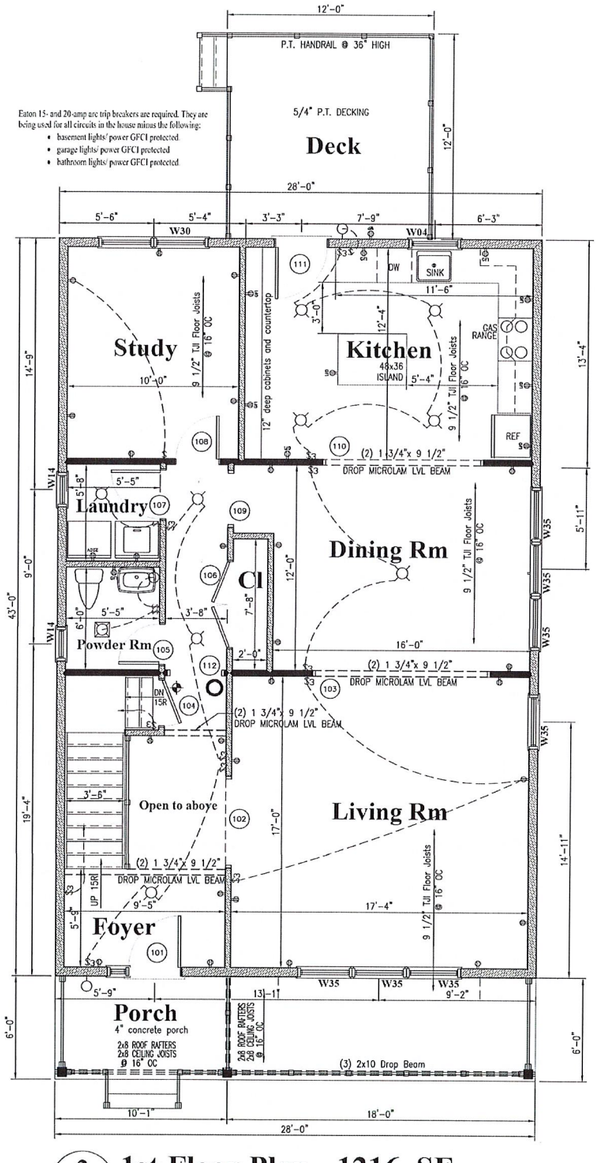


1 / A2 **Foundation Plan**

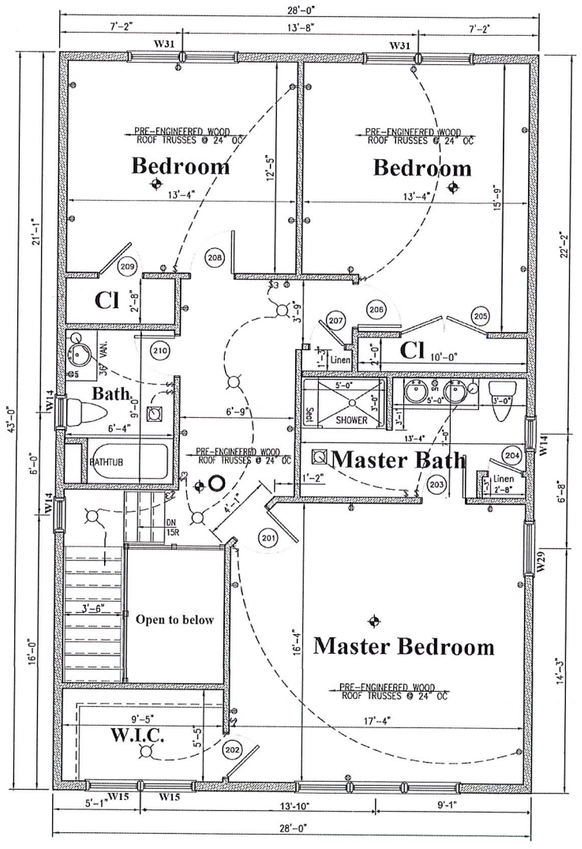
Scale: 1/4"=1'-0"

Eaton 15- and 20-amp arc trip breakers are required. They are being used for all circuits in the house minus the following:

- basement lights/ power GFCI protected
- garage lights/ power GFCI protected
- bathroom lights/ power GFCI protected



2 / A2 **1st Floor Plan - 1216 SF**



3 / A2 **2nd Floor Plan - 1183 SF**

Rieger Homes
Brett Model
Lot #8

#56 Townsend Street, Beacon, NY

FLOOR PLANS

REVISIONS

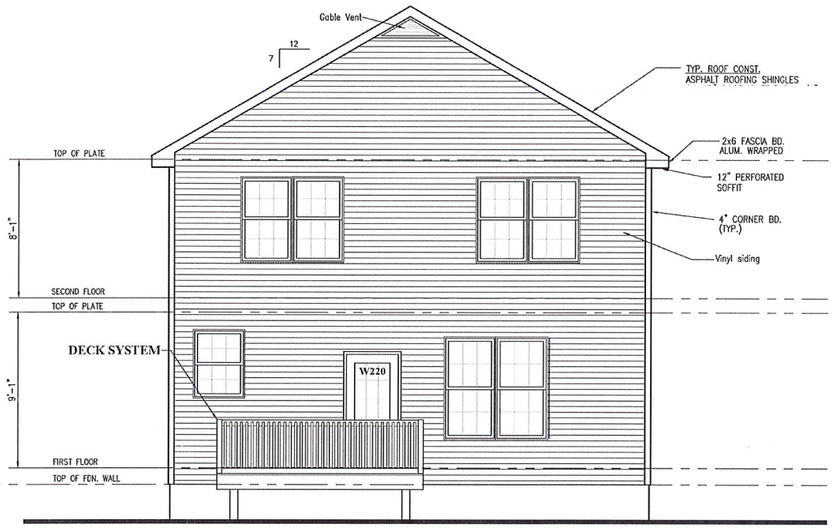
DATE

12/26/2023

A2

of 5

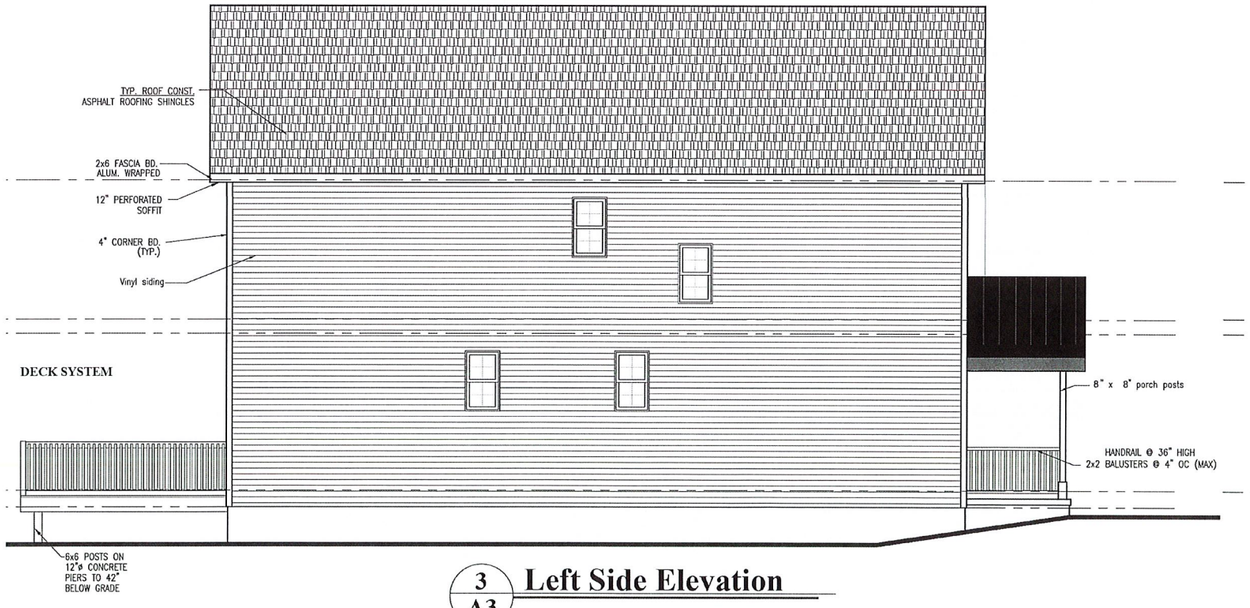
1347



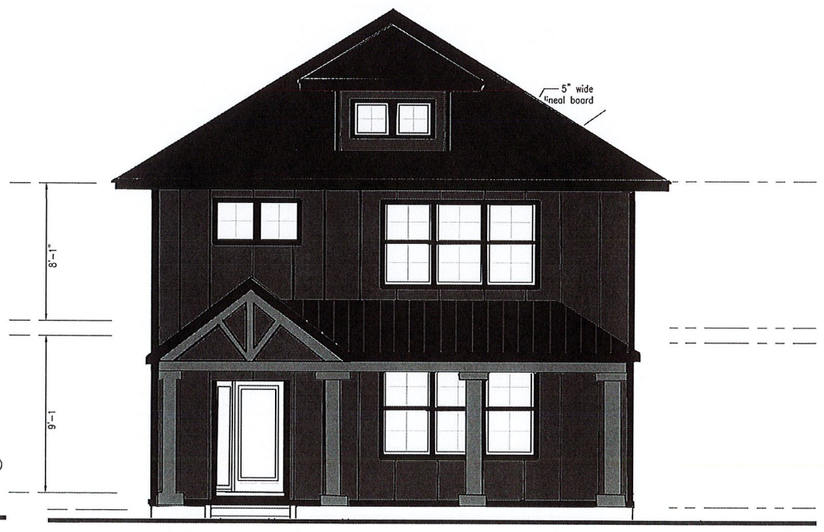
1 A3 Rear Elevation



2 A3 Right Side Elevation



3 A3 Left Side Elevation



4 A3 Front Elevation

Rieger Homes
Brett Model
Lot #8

#56 Townsend Street,
Beacon, NY

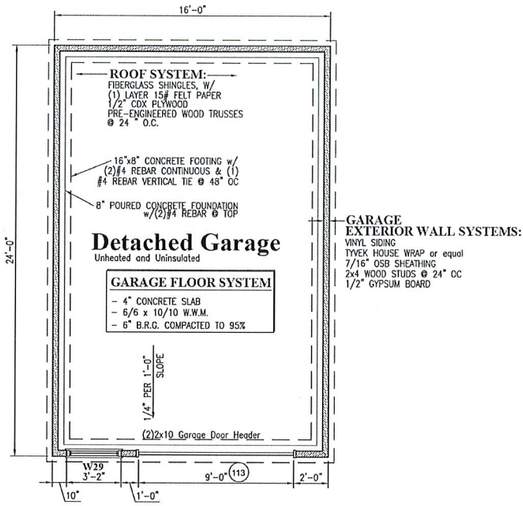
ELEVATIONS

REVISIONS

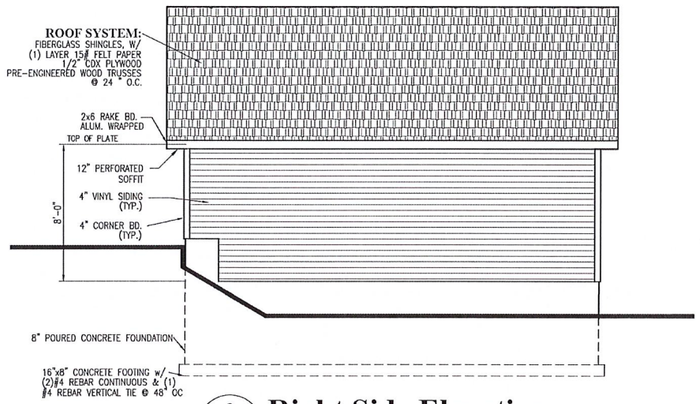
DATE

10/17/23

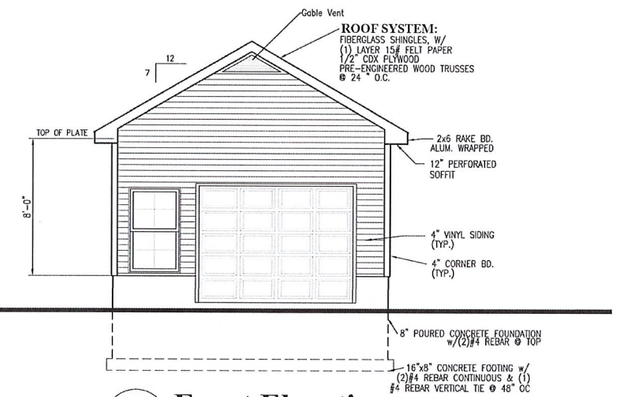
A3



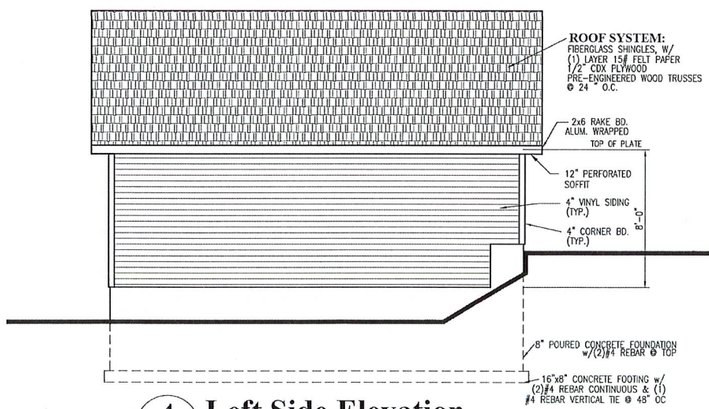
1 A5 **Foundation Plan**
Scale: 1/4"=1'-0"



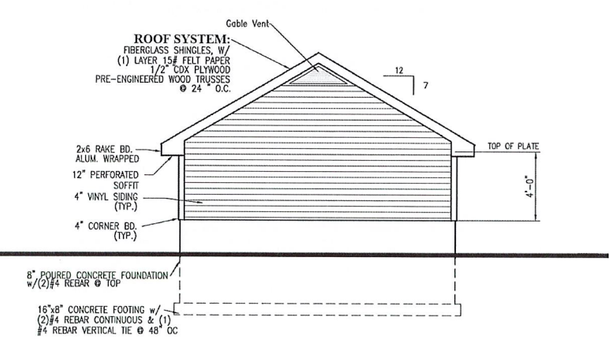
2 A5 **Right Side Elevation**
Scale: 1/4"=1'-0"



3 A5 **Front Elevation**
Scale: 1/4"=1'-0"



4 A5 **Left Side Elevation**
Scale: 1/4"=1'-0"



5 A5 **Rear Elevation**
Scale: 1/4"=1'-0"

Rieger Homes
Brett Model
Lot #8

#56 Townsend Street,
Beacon, NY

Proposed
1-Car
Detached Garage

REVISIONS

DATE
12/26/2023

SHEET NUMBER
A5
of 5

1349

City of Beacon Planning Board Agenda
02/14/2024

Title:

Certificate of Appropriateness - 520 Main Street; Sign

ATTACHMENTS

520 Main PB 2.14.24 ARB sign app.pdf

RECEIVED
JAN 24 2024
By NP

ARCHITECTURAL REVIEW BOARD APPLICATION

Date 1/24/24

Project Address 520 Main Street Beacon, NY 12508

Project Architect/Engineer _____

Owner/Builder Johnathan Miller

Contact Phone No 845-453-8049 Email Jonculrealty@yahoo.com

Approval Requested ✓ Certificate of Appropriateness (sign or façade change) _____ New Single-Family House

Color/Materials:

Siding _____

Roofing _____

Windows Color _____ Type _____

Trim _____

Garage Door _____

Stone/Brick _____

Jonathan Miller
Signature of Owner

Applications for sign approval must also submit a sign permit application & supporting documents

FOR OFFICE USE ONLY

The Architectural Review Board has reviewed the plans submitted for approval for the project listed above and has determined

Plan Denied _____
(Date)

Plan Approved _____
(Date)

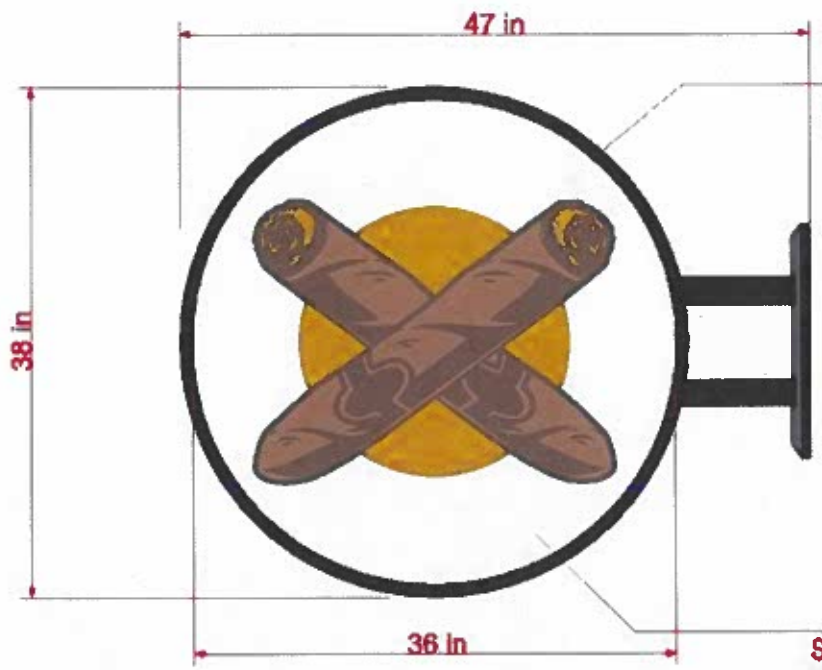
Subject to the following:

_____

_____

FEE: $100.00

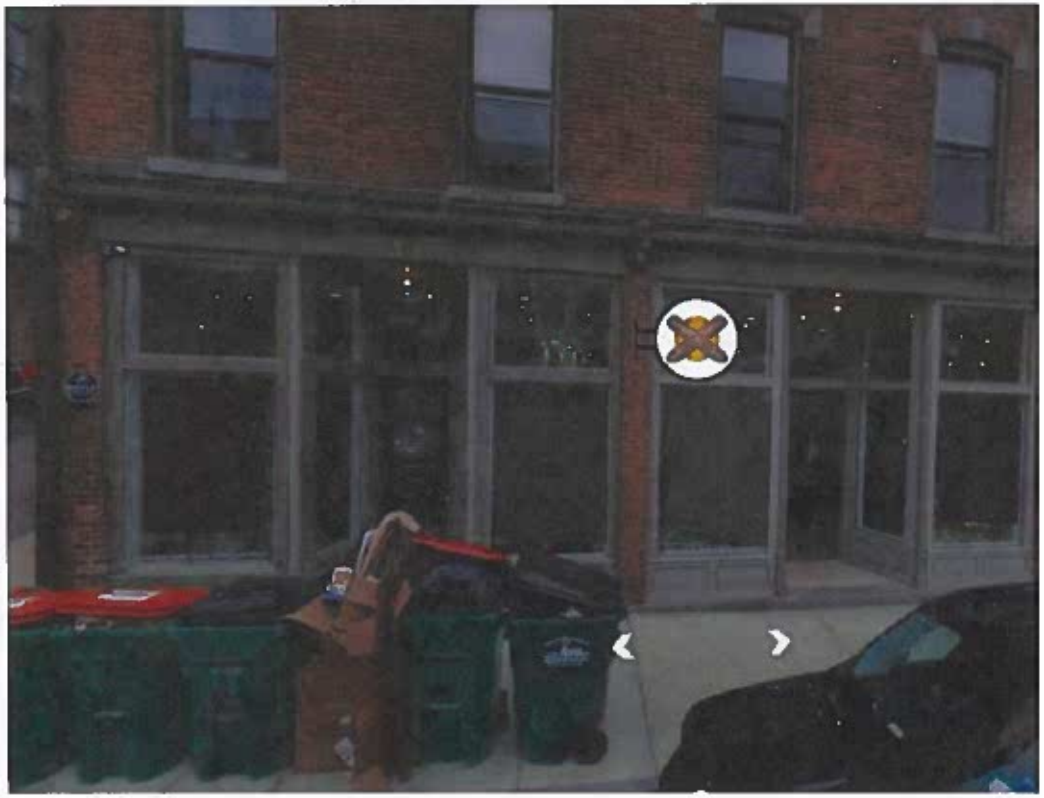
1352



1" steel frame coated black to hold the sign and be mounted to the wall of the storefront.

Sign face to be made out of 12mm PVC with vinyl on both sides of the faces.





BUILDING DEPARTMENT
City of Beacon

One Municipal Plaza - Suite 1 - Beacon, New York 12508

Application for Sign Permit

INSTRUCTIONS

a. ***This application must be completely filled in and submitted to the Building Inspector.***

b. ***This application must be accompanied by two copies of colored rendering of proposed sign.***

c. ***The plan must include dimensions and square foot calculations.***

d. ***The work covered by this application may not be commenced before the issuance of a sign permit.***

e. ***Upon approval of this application, the Building Department will issue a sign permit to the applicant together with approved, duplicate copy of drawings. Such permit and approved drawings shall be kept on the premises available for inspection throughout the progress of the work.***

f. ***All electrical work to be done by an electrician licensed to work in the City of Beacon and shall comply with the City of Beacon Electrical Code.***

g. ***All work to be done in accordance with the plans and specification and no person shall make any change in said plans and specifications without the written consent of the Building Department.***

1354

BUILDING DEPARTMENT
City of Beacon

Approved: _____ 20 ____
Disapproved: _____ 20 ____

_____
Building Inspector

Application for Sign Permit

Date 1/23/24

Address of Sign 520 main street Beacon, Ny 12508

PROPERTY OWNER

Name Jan Miller Phone 845-453-8049
Address 451 Main street Beacon, Ny 12508

BUSINESS OWNER

Name of Owner Edward De LaCruz Phone 646-667-6000
Name of Business: Cigar On Main
Type of Business: Cigars shop
Address 520 main street Beacon, Ny 12508

SIGN COMPANY

Name Signarama of Dutchess Phone 845-849-1549
Address 749 Freedom Plains Rd Poughkeepsie, Ny 12603

ELECTRICIAN – (For Illuminated Signs)

Name _____ Phone _____
Address _____

TYPE OF SIGN:

_____ Ground ($25) ___/___ Wall ($15) _____ Temporary Sign ($10)

Sign Content: _____
Height of sign (if applicable) 38" Sign Dimensions 36" circle, 58" with bracket
Type of materials to be used: 12mm PVC with 1" steel bracket
Means of anchoring: Screw through bracket to wall

APPLICATION IS HEREBY MADE to the Building Department for the issuance of a Sign permit pursuant to the City of Beacon Code of Ordinances. The applicant agrees to comply with all applicable laws, ordinances and regulations.

Edward Delacruz
(Signature of Owner)

APPLICATION PROCESSING RESTRICTION LAW
Affidavit of Property Owner

Property Owner: Edward De LaCruz
(Applicant)
If owned by a corporation, partnership or organization please list names of persons holding over 5% interest in business.
NONE

List all properties in the City of Beacon that you hold a 5% interest in.

Applicant Address: 7 S Hamilton st Poughkeepsie, NY 12601
Project Address: 520 Main Street Beacon, NY 12508
Project Tax Grid #:
Type of Application: Sign Application

*** Please note that the property owner is the applicant. "Applicant" is defined as any individual who owns at least five percent interest in a corporation or partnership or other business.**

I, Edward De LaCruz, the undersigned owner of the above referenced property, hereby affirm that I have reviewed my records and verify that the following information is true. (Check statements that are **true**)

1. No violations are pending for ANY parcel owned by me situated within the City of Beacon. ✓
2. Violations are pending on a parcel or parcels owned by me situated within the City of Beacon. NO
3. ALL tax payments due to the City of Beacon are current. Yes
4. Tax delinquencies exist on a parcel or parcels owned by me in the City of Beacon. NO
5. Special Assessments are outstanding on a parcel or parcels owned by me in the City of Beacon NO
6. ALL Special Assessments due to the City of Beacon on any parcel owned by me are current. Yes

Edward De LaCruz

Signature of Owner

Title if owner is corporation

City of Beacon Planning Board Agenda
02/14/2024

Title:

Certificate of Appropriateness - Two Cross Street; Facade

ATTACHMENTS

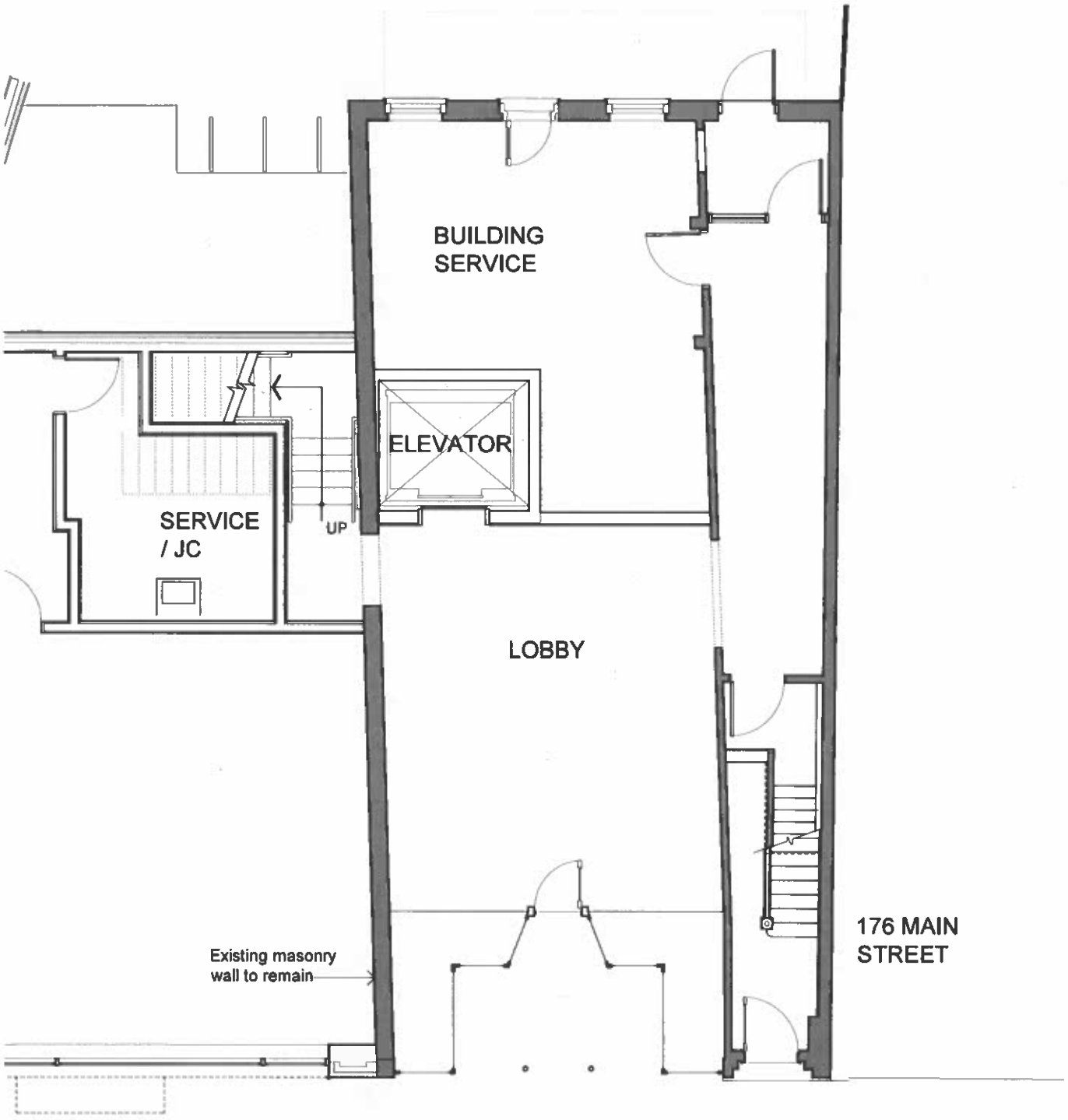
Two Cross PB 2.14.24 SHPO Response REV GRND FL 1.5.24.pdf

Two Cross PB 2.14.24 SHPO Response REV 2nd FL 1.5.24.pdf

Two Cross PB 2.14.24-172 Main exisitng 2nd fl.pdf

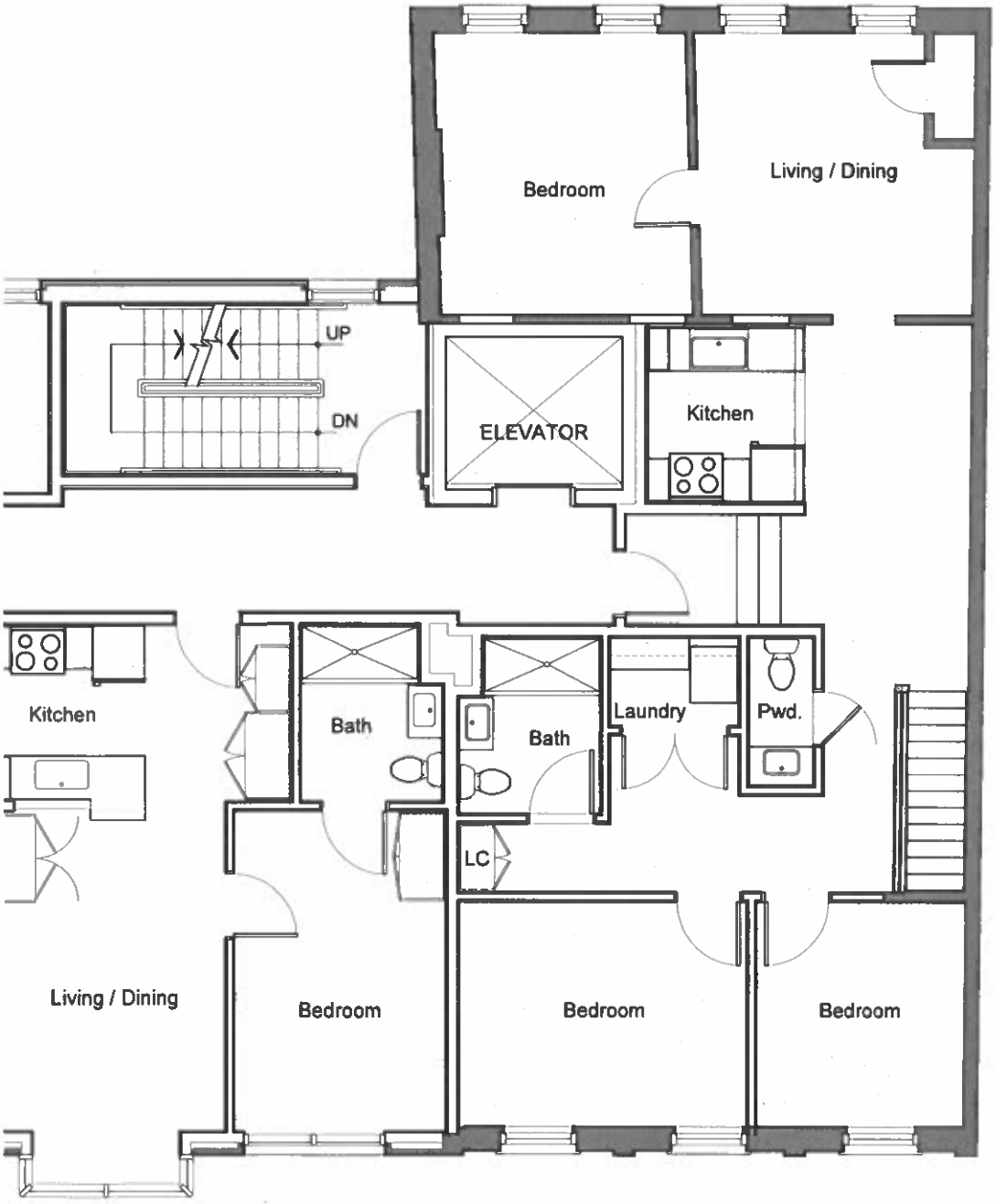
Two Cross PB 2.14.24 Oriel window study.pdf

Two Cross PB 2.14.24 SHPO ltr of no impact _23PR07274.pdf



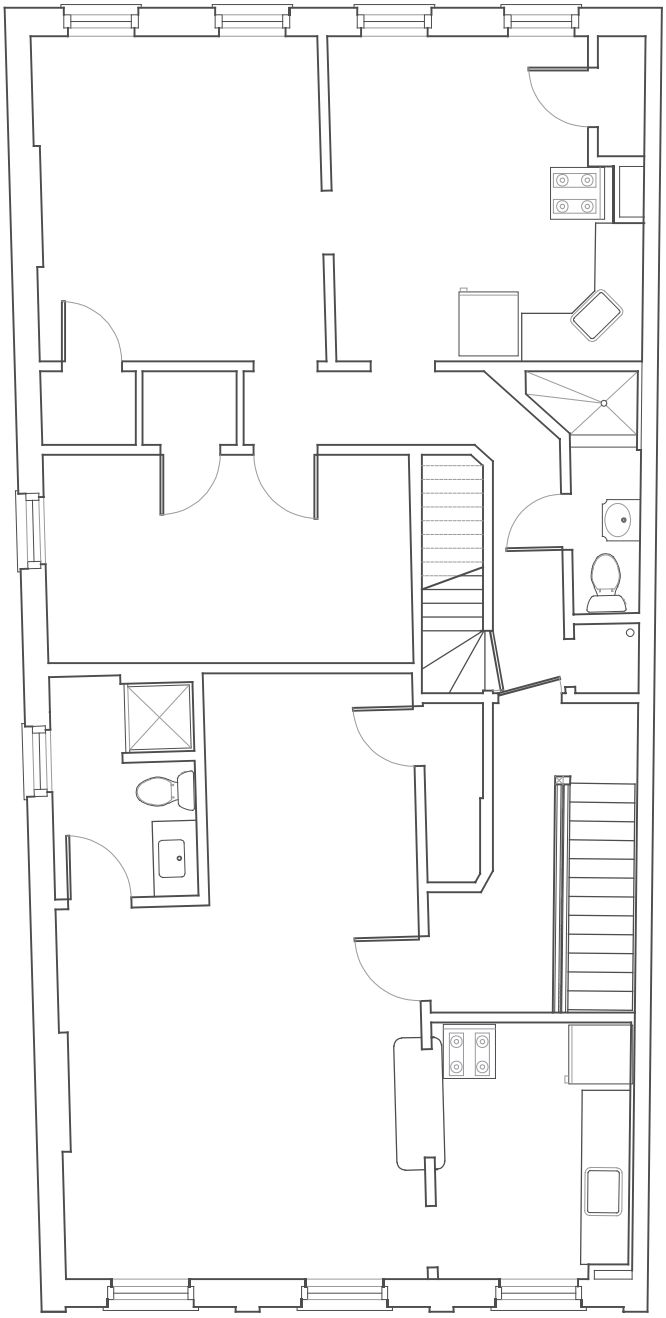
0 5 10 15 20

Two Cross Street
Ground Floor Option
5 January 2024
Scale: $\frac{1}{8}$"=1'-0"



0 5 10 15 20

Two Cross Street
Second Floor Option
5 January 2024
Scale: $\frac{1}{8}$"=1'-0"



SECOND FLOOR LEVEL

2 CROSS STREET, BEACON NY

Bay Window Study | January 21, 2024

1360



1361

3-sided Bay Window
Previous

Painted Metal Panel

Painted Metal
Textured Panel



Solid Bay Window with L2 Spandrel
Option 2



Main Street View Looking East
Option 2 - Solid Bay Window with L2 Spandrel



Main Street View Looking West
Option 2 - Solid Bay Window with L2 Spandrel

New York State
Parks, Recreation and
Historic Preservation

KATHY HOCHUL
Governor

ERIK KULLESEID
Commissioner

January 30, 2024

Darren Scott
Upstate East Director of Development
New York State Homes and Community Renewal
Hampton Plaza
38-40 State Street
Albany, NY 12207

Re: HCR/AHC
Two Cross Street
172 Main St, Beacon, NY 12508
23PR07274

Dear Darren Scott:

The Division for Historic Preservation of the Office of Parks, Recreation and Historic Preservation (OPRHP) received revised designs for Two Cross Street in Beacon, NY. We have reviewed the submitted materials in accordance with the New York State Historic Preservation Act of 1980 (section 14.09 of the New York Parks, Recreation and Historic Preservation Law).

The project site is located within the National Register listed Lower Main Street Historic District, and the project includes alterations to one of the buildings in the district. Because of the status of the historic district, we have reviewed the project.

We appreciate that the applicant was able to make many changes to the design in response to our request. Also, we realize that the project was in the design phase for quite some time before New York State funds were received, which required consultation with our office and made the process more challenging.

It is the opinion of OPRHP that the project will have No Adverse Impact on 172 Main Street and the historic district on the following condition:

1. The hardwood floors are retained. If there are sections that are beyond repair, they will be repaired in limited locations to match the historic flooring in all qualities. It is acceptable for kitchens and bathrooms to have ceramic or vinyl tile however.

If you have any questions, I can be reached at sloane.bullough@parks.ny.gov or 518-268-2158.

Sincerely,

Sloane Bullough

Sloane Bullough
Historic Sites Restoration Coordinator via email only