COURTROOM
1 MUNICIPAL PLAZA
BEACON, NY 12508

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

July 9, 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.

Approval of June 11, 2024, minutes.

Regular Meeting

1. Continue review of application for Subdivision Approval, residential, 39 Howland Avenue, submitted by John Vergara.
2. Continue 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. Continue review of application for Site Plan Approval, 19 Henry Street, townhomes, submitted by Lori Joseph Builders, Inc.

Architectural Review

1. New Single-Family House â€“ 144 Spring Valley Street
2. Certificate of Appropriateness â€“ 475 Main Street; Sign
3. Certificate of Appropriateness â€“ 263 Main Street;
4. New Single-Family House â€“ 925 Wolcott Avenue

City of Beacon Planning Board Agenda
07/09/2024

Title:

Continue review of application for Subdivision Approval, residential, 39 Howland Avenue, submitted by John Vergara.

ATTACHMENTS

39 Howland PB 7.9.24 Subdivision cvr ltr_2024-0625.pdf

KARC Review PB_39 Howland Ave_2024.07.03.pdf

39 Howland Street Subdivision Approval Resolution (4858-9126-3182.2).pdf

HUDSON LAND DESIGN

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 Fax: 845-440-6637
www.HudsonLandDesign.com

June 25, 2024

Hon. John Gunn, Chairman & Members
City of Beacon Planning Board
1 Municipal Plaza
Beacon, New York 12508

Re: 39 Howland Avenue Residential Subdivision
John Vergara (Applicant)
39 Howland Avenue
Tax Parcel: 6054-47-345576, ±0.68 ac.
City of Beacon, New York

Dear Chairman Gunn and Members of the Planning Board:

On behalf of the Applicant for the above referenced project, Hudson Land Design (HLD) has submitted the sewer pump station design to the Dutchess County Department of Behavioral and Community Health for review. It is our understanding that the board voted to authorize a draft resolution for the July meeting at their June meeting. Now that the planning board consultant's comments are minimal, and mainly housekeeping in nature, no new plans will be submitted to the planning board until we receive comments back from the health department. Therefore, we are respectively requesting to be placed on the July 9th, 2024 planning board agenda for consideration of adopting the resolution of approval subject to conditions.

Thank you for your attention to this matter. Should you have any questions, please feel free to contact me at 845-440-6926.

Sincerely,

Michael A. Bodendorf, P.E.
Principal

cc: John Vergara
Daniel G. Koehler, P.E. (HLD file)

KARC
PLANNING CONSULTANTS, INC.

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

FR: KARC Planning Consultants, Inc.

DATE: July 3, 2024

RE: 39 Howland Avenue Subdivision Application, John Vergara

I have reviewed the following materials regarding the proposed subdivision of 39 Howland Avenue:

- Cover letter by Hudson Land Design, dated June 25, 2024

Project Description: The applicant is proposing subdivision of an existing 0.68 acre parcel (29,645 sq. ft.) into two lots of record, Lot 1 (10,830 sq. ft.) and Lot 2 (18,815 sq. ft.). An existing single-family residence will be retained on Lot 1, with a new two-story single-family residence proposed on Lot 2. The property is located within the R1-7.5 zoning district where the proposed use is permitted.

All the comments from my previous memos to the Planning Board have been addressed. The subdivision as proposed is code compliant and acceptable from a planning perspective.

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
Michael Bodendorf, P.E., Project Engineer

RESOLUTION

PLANNING BOARD
BEACON, NEW YORK

PRELIMINARY AND FINAL SUBDIVISION PLAT APPROVALS FOR
39 HOWLAND AVENUE

Parcel No. 6054-47-345576

WHEREAS, the Beacon Planning Board received applications for Preliminary and Final Subdivision Plat Approvals from John Vergara (the "Applicant") for a 2-lot residential subdivision (the "Project" or "Proposed Action") on a 29,646+/- square foot parcel, or 0.68 acres, located at 39 Howland Avenue and designated on the Tax Map of the City of Beacon as **Parcel ID# 6054-47-345576** in the R1-7.5 One-Family Residence (R1-7.5) Zoning District (the "Property"); and

WHEREAS, the Applicant is proposing to subdivide the Property into two lots with proposed Lot 1 being 10,830 square feet in size with an existing single-family residence, and a proposed Lot 2 being 18,815 square feet in size to allow for the construction of a new single-family residence; and

WHEREAS, the Planning Board is the approval authority for the Subdivision pursuant to City of Beacon Code § 195-2; and

WHEREAS, the application consists of application forms, correspondence, Short Environmental Assessment Form, Inflow and Investigation Report and professional studies and reports submitted to the Planning Board; and

WHEREAS, the subdivision is shown on a plan entitled "Preliminary Subdivision Plat – 39 Howland Avenue Subdivision," last revised May 28, 2024, as prepared by Hudson Land Design Professional Engineering, P.C., Beacon, NY, and a plan set entitled "39 Howland Avenue Subdivision," Sheets 1-5, dated March 26, 2024, last revised May 28, 2024, as prepared by Hudson Land Design Professional Engineering, P.C., Beacon, NY, as follows:

Sheet	Title
1	*Cover Sheet (CV-1)*
2	*Existing Conditions Plan (XC-1)*
3	*Subdivision Plan (SP-1)*
4	*Erosion & Sediment Control Plan (ESC-1)*

5 *Construction Details (CD-1),* and

WHEREAS, the Proposed Action is an Unlisted Action pursuant to the New York State Environmental Quality Review Act ("SEQRA"); and

WHEREAS, the Planning Board reviewed the application at its meetings on April 9, 2024, May 14, 2024, June 11, 2024 and July 9, 2024; and

WHEREAS, on June 11, 2024, the Planning Board, after conducting an uncoordinated SEQRA review, adopted a Negative Declaration pursuant to SEQRA after taking a "hard look" at each of the relevant areas of environmental concern through review of the SEAF and all associated materials prepared in connection with the Proposed Action and finding that the Proposed Action will not result in any significant adverse environmental impacts; and

WHEREAS, on June 11, 2024, the Planning Board opened and closed a duly noticed public hearing on the Subdivision, at which time all those interested were given an opportunity to be heard; and

WHEREAS, the Planning Board has the authority to allow the use of utility and drainage easements pursuant to Section 195-25(C) of the City Code, subject to such easements being in a form suitable to the City Attorney; and

WHEREAS, the Planning Board is fully familiar with the Proposed Action and has reviewed the Applicant's materials and Subdivision Plans relative to all appliable provisions of the City Code.

NOW THEREFORE BE IT RESOLVED, that the Planning Board hereby grants Preliminary Subdivision Plat Approval for the Proposed Action, as shown on the application materials referenced above.

BE IT FURTHER RESOLVED, that the Planning Board hereby finds 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, that the Planning Board hereby grants Final Subdivision Plat Approval, as shown on the application materials referenced 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 Proposed Action, 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 June 8, 2024, and all comments in any subsequent letter(s) issued, shall be fulfilled to the satisfaction of the City Engineer.

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 enforcement 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. Based on the current and anticipated future need for park and recreational opportunities in the City of Beacon, as set forth in the analysis provided by BFJ Planning, and the demands of the future population of the Project, the Planning Board hereby finds that additional recreation/parkland should be created as a condition of approval. However, the Planning Board hereby determines that recreation/parkland of adequate size and location cannot be provided on the Project Site. Therefore, that Applicant shall pay a Recreation Fee for the one (1) new lot as prescribed under Section 195-25.A(4) of the City Code. The Planning Board hereby requires that, prior to the issuance of the Certificate of Occupancy for each lot, the Applicant shall pay a Recreation Fee as per the City's Fee Schedule in effect at the time of payment.

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. Any rock encountered that requires removal shall be done by mechanical means only. No rock processing is permitted on-site.

5. As used herein, the term "Applicant" shall include John Vergara, and his successors and assigns, and where applicable, his contractors and employees.

6. 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.

7. The approvals granted by this Resolution do not supersede the authority of any other entity.

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 shall be submitted 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 documents described above.

10. 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.

Resolution Adopted: July 9, 2024
Beacon, New York

_____ _____, 2024

John Gunn, Chairman Date
City of Beacon Planning Board

Preliminary & Final Subdivision Plat Approvals
39 Howland Avenue

Motion by _____, seconded by _____:

Kevin Byrne	Voting	Leonard Warner	Voting EXCUSED
Donna Francis	Voting	J. Randall Williams	Voting
David Jensen	Voting	John Gunn, Chairman	Voting
Karen Quiana	Voting:		

Resolution: Approved
Denied

City of Beacon Planning Board Agenda
07/09/2024

Title:

Continue 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 & High St PB 7.9.24 Supplemental Submission 6-25-2024.pdf

45 Beekman, High & High St PB 7.9.24 Architectural Plan Set Aryeh Siegel, Architect 11-28-23, last rev 6-25-24.pdf

45 Beekman, High & High St PB 7.9.24 Exhibit A -Response to Comments Colliers Eng 6-25-24.pdf

45 Beekman, High & High St PB 7.9.24 Exhibit B - Infiltration & Inflow Report Colliers Eng 6-25-24.pdf

45 Beekman, High & High St PB 7.9.24 Exhibit C - Stormwater Calculation Memo Colliers Eng 6-25-24.pdf

45 Beekman, High & High St PB 7.9.24 Exhibit D - Coastal Assessment Form & LWRP Consistency Statement.pdf

45 Beekman, High & High St PB 7.9.24 Revised Traffic & Parking Study Colliers Eng 11-28-23, last rev 6-24-24.pdf

45 Beekman, High & High St PB 7.9.24 Site Plan Set entitled 'Preliminary Site Plan' Colliers Eng 1-29-24, rev 6-25-24.pdf

45 Beekman, High & High St PB 7.9.24 Surveys by Automated Construction Enhanced Solutions 11-3-23, rev 5-1-24.pdf

KARC Review PB_45 Beekman_2024.07.08.pdf

Creighton Manning review 20240705_45 Beekman Rev2_124008.pdf

Lanc & Tully 45 Beekman Street 07-08-24 review.pdf

CUDDY +FEDER LLP

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

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

June 25, 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
Comprehensive Design Package for Alternate Proposal Incorporating Excess Lands in Beekman Street Right-Of-Way
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 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) on the first floors, together with multi-family residences on the upper floors (the "Project").

As was discussed with the Board on June 11th, the Applicants are pleased to submit a comprehensive package detailing the alternative building design layout utilizing a portion of the right-of-way area along Beekman Street that is currently owned by the New York State Department of Transportation (the "Surplus ROW Property").[1] We reiterate below the proposed

[1] Note: As this Board is aware, pursuant to the directives provided by this Board, and comments from Dutchess County Planning and City Staff and Consultants in order to more fully assess the Project design and feasibility of further activating those respective street frontages, the Applicants introduced the alternative building design to the Board in a submission dated April 30, 2024 containing a sketch site plan and preliminary building plans after receiving confirmation from its title company that New York State Department of Transportation ("NYSDOT") owns the right-of-way areas that abut the Property along its Beekman Street and NYS Route 9D (North Avenue) frontages. Thereafter, the Applicants provided the Board with additional building plans and a site section in a submission package dated May 28, 2024. The purpose of this submission is to consolidate that previous two (2) submissions and include additional application materials and response to outstanding City Consultant comments consistent with a

alternative design and introduce the revised Architectural and Site Plans and additional traffic and engineering reports assessing the alternative design.

THE ALTERNATIVE MIXED-USE BUILDING DESIGN:

The alternative design maintains the Project's proposed two (2) four (4)-story mixed-use buildings comprising commercial spaces on the first floors, together with 64 dwelling units on the upper floors. As is more fully detailed in the enclosed revised Site Plan and Architectural Plans, the alternative design reconfigures both the Beekman and High Street Buildings by expanding the Beekman Building into the NYSDOT Surplus ROW Property along Beekman Street to align more closely with the public sidewalk and by reducing the High Street Building footprint into a rectangular design, as opposed to the former "home plate" configuration.

As a result of these changes, the mixed-use Buildings are proposed to comprise the following:

- Beekman Building: Approximately 10,566 square feet of commercial space and 2,360 square feet of tenant amenity space on the first floor. The commercial space is proposed to be split into three (3) distinct areas, comprising 3,710, 1,856, and 5,000 square feet. A residential lobby and sprinkler and mail rooms are also proposed on this floor. The garage level will include 41 off-street parking spaces. The second through fourth stories will consist of a total of 45 dwelling units (20 two-bedrooms and 14 one-bedrooms). The fourth-floor dwelling units will include private balconies and the rooftop will include a 5,400 square foot common tenant deck.

- High Street Building: Approximately 4,326 commercial square feet split into two distinct areas each comprising 2,163 square feet, along with a residential lobby on the first floor. The second through fourth stories will consist of a total of 19 dwelling units (11 two-bedrooms and 8 one-bedrooms). The fourth floor will include both private and common tenant deck spaces.

comprehensive application and design package. The Applicants are currently still coordinating with the Title Company and Surveyor in connection with the forthcoming NYSDOT submission. The Applicants will provide this Board with additional information upon receipt of same from NYSDOT and as the Applicants progress discussions regarding a potential conveyance of this Surplus ROW Property and the associated application process with NYSDOT.

An additional 47 surface parking spaces are proposed throughout the Premises for a total of 88 off-street parking spaces that will be shared amongst the two (2) Buildings.

Both the Beekman and High Street Buildings will include exterior covered arcade walkways accessing the first-floor commercial spaces, which contribute towards activating the streetscape and creating an opportunity for visual interest for pedestrians. The Applicant's architect, Aryeh Siegel Architect, has prepared elevations and rendering for the Beekman Building for the Board's consideration and feedback at the next Board meeting. *See* enclosed Architectural Plans (Sheet A-105). The Landscape Plan has also been revised to include street trees, planted areas, benches, and expanded sidewalk sections in an additional effort to activate the area. *See* enclosed Site Plan (Sheet 12). We look forward to discussing the renderings and revised Site Plan with the Board at the July meeting date.

THE APPLICANT'S REVISED TRAFFIC & PARKING STUDY DEMONSTRATES THAT THE PROPOSED SHARED PARKING AREAS ARE SUFFICIENT TO MEET THE NEEDS OF THE PROPOSED RESIDENTIAL AND COMMERCIAL USES:[2]

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 June 24, 2024 (the "Traffic Study" or "Study") in order to account for the alternative building design and has provided responses to outstanding comments on the Project made by the City's Traffic Consultant, Creighton Manning, and the NYSDOT. *See* enclosed Study and **Exhibit A** – Response to Comments. As is further detailed within the Traffic Study, the Shared Parking Analysis reveals that the peak parking demand for the Project when accounting for the shared use of parking between the residential and commercial uses is 88 parking spaces. It is worth noting, consistent with the prior iterations of the Study, that the Shared Parking Analysis *did not* take any credit for either (1) potential internal trips between the residential units and commercial space or (2) the proximity of the Project to the nearby Beacon Metro North Train Station. If the Applicants were to take such factors into account, the peak parking demand is anticipated to be 84 parking spaces. As such, it is respectfully submitted that the actual parking demand may be somewhat lower than the 88 spaces and that the proposed 88 spaces are more than sufficient for the Project. The

[2] Note: The original Traffic Study conclusion that additional Project generated traffic is not anticipated to have a significant impact on traffic conditions in the vicinity of the site applies equally to the alternative building design.

Applicants respectfully request that the Planning Board modify the number of required parking spaces for the Project consistent with City Code Section 223-41.21.F.(3) based on the Shared Parking Analysis.[3]

Additionally, the revised Traffic Study incorporates and assesses additional traffic data for approved developments in the area and historical crash data from the NYSDOT for several surrounding area intersections. As is further detailed therein, the calculated accident rate for the selected intersections was generally found to be comparable to the statewide average accident rate for similar type intersections.

THE PROJECT IS CONSISTENT WITH THE CITY'S LOCAL WATERFRONT REVITALIZATION PROGRAM:

In response to the City Planner's comment in the May 6, 2024 Memorandum, the Applicants respectfully re-submit the Coastal Assessment Form and Local Waterfront Revitalization Program ("LWRP") consistency statement, which was previously submitted to the Board on November 28, 2023. *See* **Exhibit D**. In a Memorandum dated December 8, 2023, the City's former Planner, John Clarke Planning and Design, previously acknowledged the Applicants' submission, finding that the "LWRP consistency justification is acceptable and the proposal appears to present no conflicts [with] the City's waterfront area policies". It is respectfully submitted that the alternative design program does not require any updates to the consistency statement and that the Project remains consistent with LWRP Policies 5, 6, 13, 14, 33, 37, 38, and 41.

ADDITIONAL REQUESTED ENGINEERING REPORTS:

In addition to the foregoing details and in response to the City Engineering Consultant comments,

[3] Note: The Applicants continue to monitor the City Council's potential amendments to the City's parking regulations. Pursuant to the latest available revision of the City's regulations dated April 15, 2024, the Project would be permitted to have a *maximum* of 109 parking spaces with the appropriate number of parking spaces provided on the Premises to be determined by the Planning Board based on various criteria including a parking analysis similar to that which has been provided within the Traffic Study. It is respectfully submitted that the 88 proposed parking spaces would be considered Code-compliant under the current iteration of the parking amendments based upon the Shared Parking Analysis contained with the Traffic Study.

Colliers has prepared Infiltration and Inflow Investigation ("I & I Report") and Stormwater Calculation Memorandum annexed hereto as **Exhibit B and Exhibit C**.

INDEX OF ENCLOSURES:

In support of this Application, enclosed please find five (5) copies of the following documents:

Exhibit A: Response to Comments Memorandum prepared by Colliers Engineering and Design, P.C., dated June 25, 2024, providing responses to:

1. the City Engineering Consultant Lanc & Tully's memoranda dated February 8, May 13, 2024;
2. City Planning Consultant KARC Planning Consultants' memoranda dated February 12, May 13, and June 10, 2024;
3. the City's Traffic Consultant Creighton Manning's February 9, 2024 memorandum; and
4. NYSDOT's February 14, 2024 comments.

Exhibit B: I&I Report prepared by Colliers Engineering & Design P.C., dated June 25, 2024;

Exhibit C: Stormwater Calculation Memorandum prepared by Colliers Engineering & Design P.C., dated June 25, 2024; and

Exhibit D: Coastal Assessment Form & LWRP Consistency Statement.

In further support of this Application, we respectfully submit the following additional enclosures:

- Site Plan Set entitled "Preliminary Site Plan", prepared by Colliers Engineering and Design, P.C. and Aryeh Siegel, Architect, dated January 30, 2024, last revised June 25, 2024 numbered and titled as follows (unless otherwise noted):
  - Sheet 1 of 19 – Cover Sheet.
  - Sheet 2 of 19 – Existing Conditions & Site Demolition Plan.
  - Sheet 3 of 19 – Tree Removal Plan.
  - Sheet 4 of 19 – Dimension Plan.
  - Sheet 5 of 19 – Grading Plan (Overall).
  - Sheet 6 of 19 – Grading Plan (West).

- Sheet 7 of 19 – Grading Plan (East).
- Sheet 8 of 19 – Utility Plan (West).
- Sheet 9 of 19 – Utility Plan (East).
- Sheet 10 of 19 – Soil Erosion & Sediment Control Plan.
- Sheet 11 of 19 – Soil Erosion & Sediment Control Details.
- Sheet 12 of 19 – Landscape Plan.
- Sheet 13 of 19 – Lighting Plan.
- Sheet 14 of 19 – Construction Details.
- Sheet 15 of 19 – Construction Details.
- Sheet 16 of 19 – Construction Details.
- Sheet 17 of 19 – Construction Details.
- Sheet 18 of 19 – Construction Details.
- Sheet 19 of 19 – Construction Details.

- Architectural Plan Set entitled "Site Plan Application", prepared by Aryeh Siegel, Architect, dated November 28, 2023, last revised May 28, 2024, numbered and titled as follows (unless otherwise noted):
  - Sheet 1 of 5 – Building Plans – Beekman Street (A-101).
  - Sheet 2 of 5 – Building Plans – Beekman Street (A-102).
  - Sheet 3 of 5 – Building Plans – High Street. (A-103).
  - Sheet 4 of 5 – Site Section (A-104).
  - Sheet 5 of 5 – Elevations (A-105).
- Surveys prepared by Automated Construction Enhanced Solutions, Inc Professional Land Surveying dated November 3, 2023, last revised May 1, 2024, numbered and titled as follows:
  - Sheet 1 of 4 – Boundary Survey.
  - Sheet 2 of 4 – Topographical Details & Utilities Survey.
  - Sheet 3 of 4 – Storm Sewer and Utilities Survey; and
  - Sheet 4 of 4 – Sanitary Sewer and Utilities Survey.

- Revised Traffic & Parking Study, prepared by Colliers Engineering & Design P.C. dated November 28, 2023, last revised June 24, 2024.

CONCLUSION:

We look forward to appearing at this Board's regular meeting on July 9th to more fully discuss the alternative building program utilizing the portions of the NYSDOT's Surplus ROW Property along Beekman Street. 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.

Thank you in advance for your consideration of this matter.

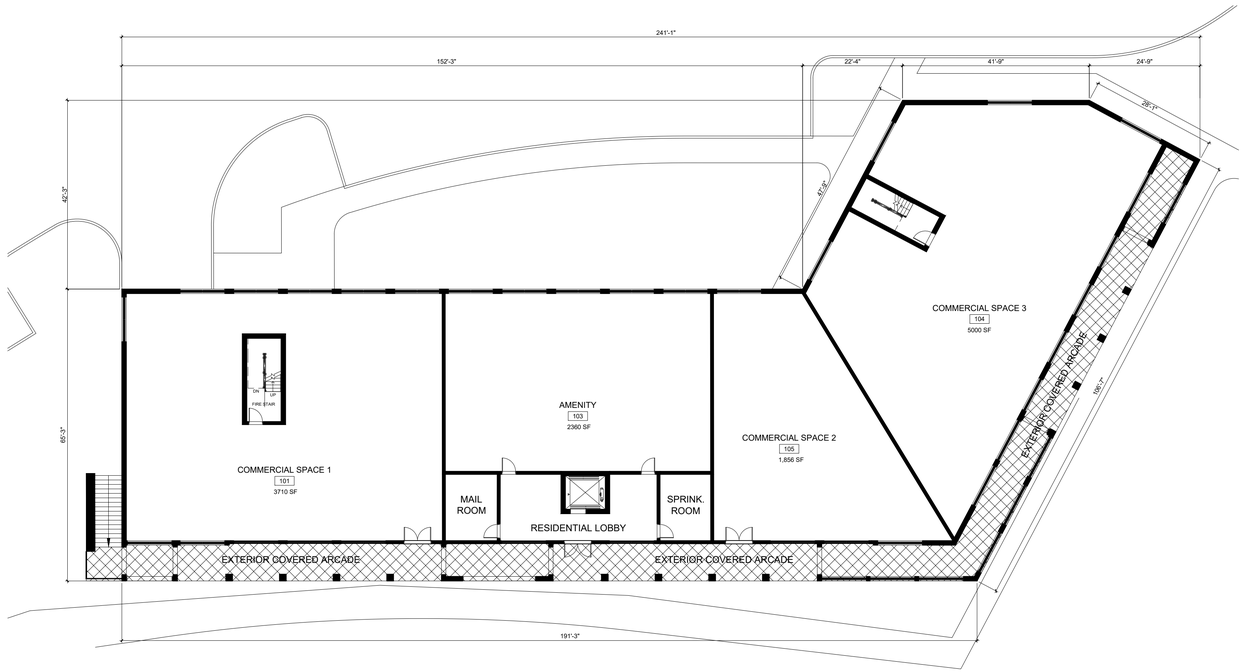
Very truly yours,

Taylor M. Palmer

Enclosures

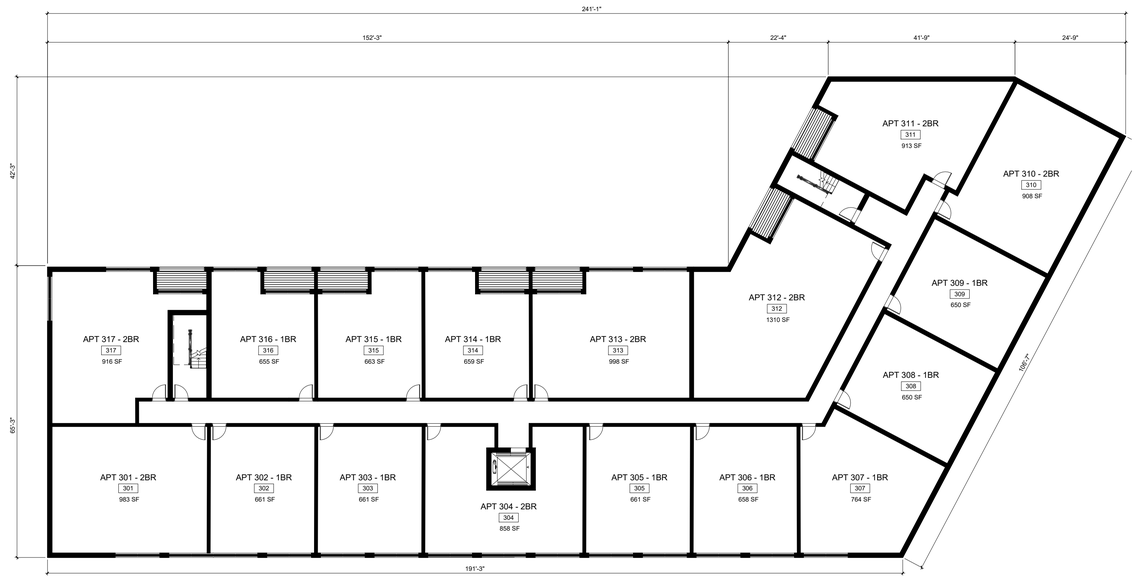
cc: Jennifer L. Gray, Esq.
John Russo, P.E., Lanc & Tully Engineering & Surveying, P.C.
Natalie Quinn, KARC Planning Consultants, Inc.
Aryeh J. Siegel Architect
Colliers Engineering & Design, P.C.
Allison Fausner, Esq.

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	01/29/24	REVISED PER PLANNING BOARD COMMENTS	AJS
2	04/30/24	REVISED PER PLANNING BOARD COMMENTS	AJS
3	05/28/24	REVISED PER PLANNING BOARD COMMENTS	AJS
4	06/25/24	REVISED PER PLANNING BOARD COMMENTS	AJS



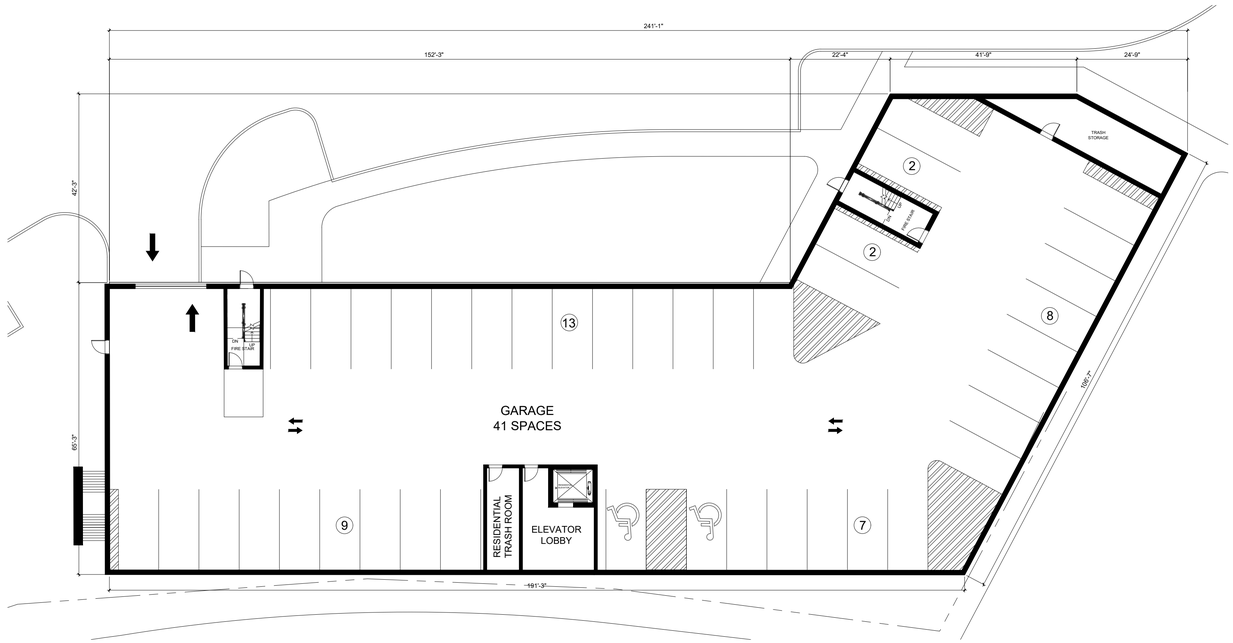
1st Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"



2nd 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

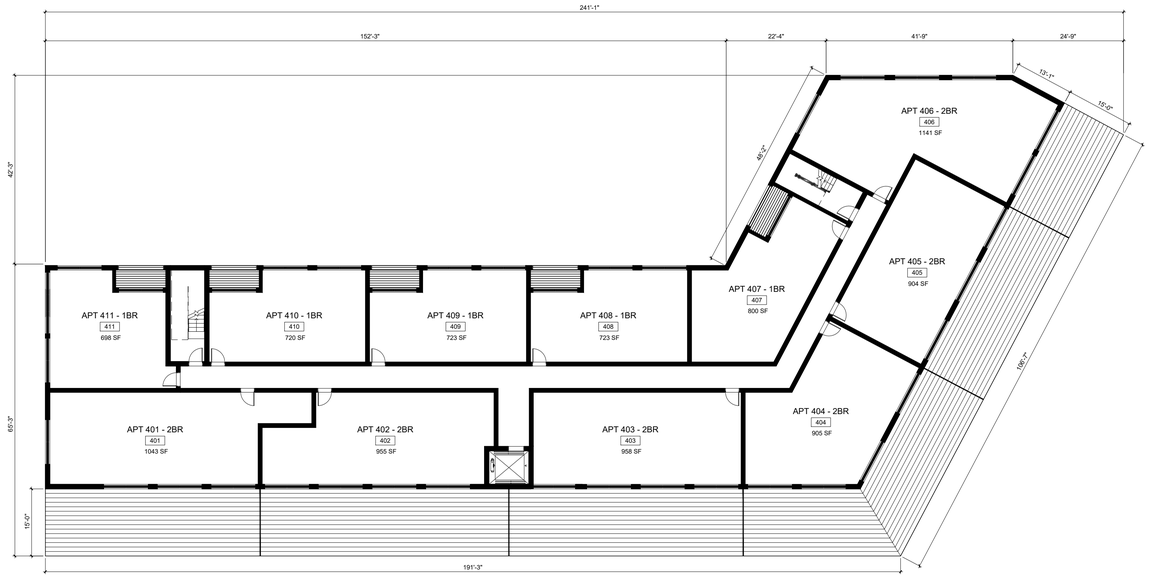
Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

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

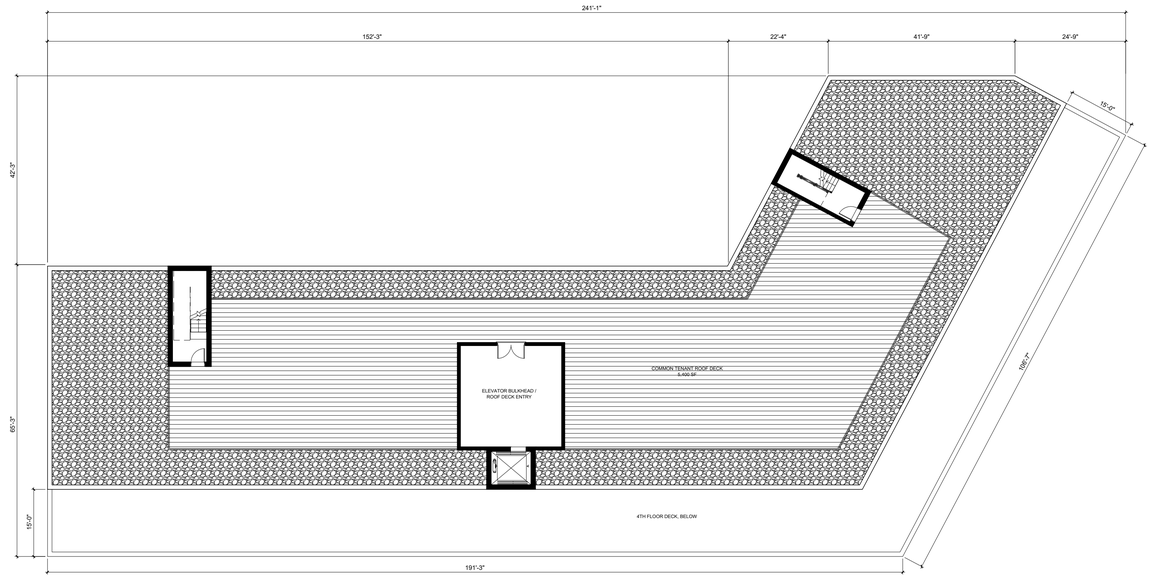
45 Beekman Street
Beacon, New York
Scale: 1/16" = 1'-0"
November 28, 2023

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	01/29/24	REVISED PER PLANNING BOARD COMMENTS	AJS
2	04/30/24	REVISED PER PLANNING BOARD COMMENTS	AJS
3	05/28/24	REVISED PER PLANNING BOARD COMMENTS	AJS
4	06/25/24	REVISED PER PLANNING BOARD COMMENTS	AJS



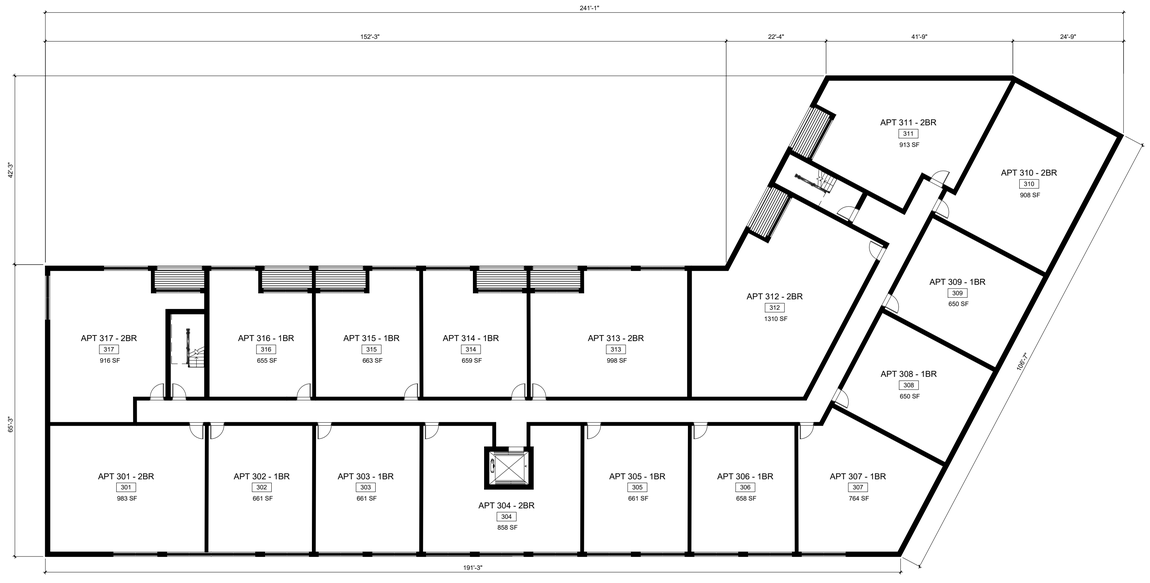
4th Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"



Roof Plan

Scale: $\frac{1}{16}$" = 1'-0"



3rd Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"

Site Plan Application

Sheet A-102 - 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

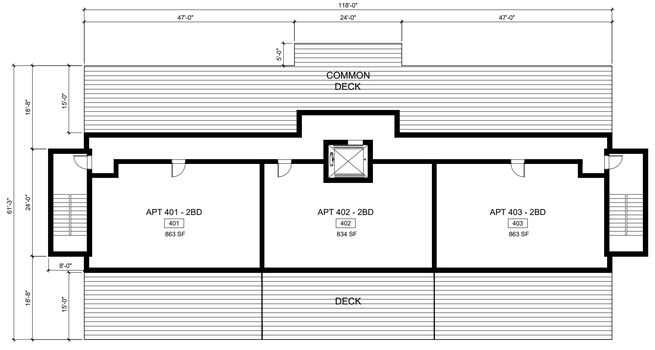
Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

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

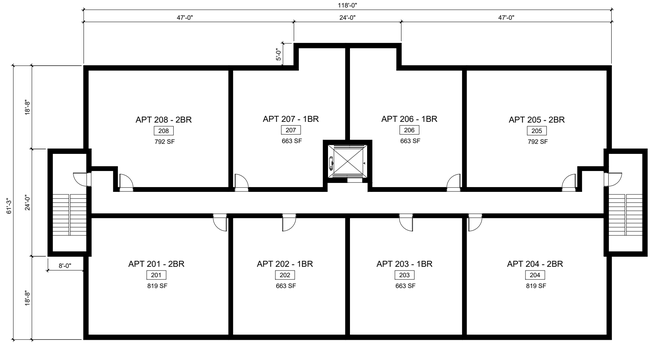
45 Beekman Street
Beacon, New York
Scale: 1/16" = 1'-0"
November 28, 2023

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	01/29/24	REVISED PER PLANNING BOARD COMMENTS	AJS
2	04/30/24	REVISED PER PLANNING BOARD COMMENTS	AJS
3	05/28/24	REVISED PER PLANNING BOARD COMMENTS	AJS
4	06/25/24	REVISED PER PLANNING BOARD COMMENTS	AJS



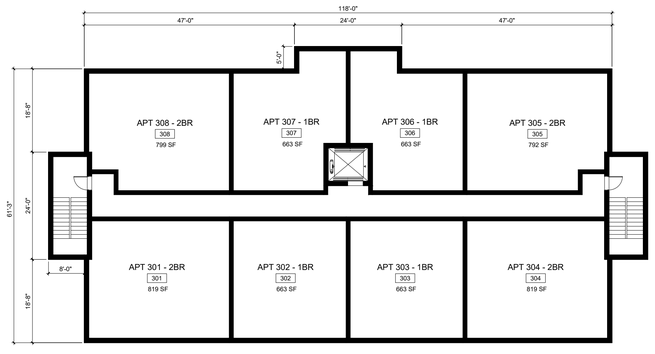
4th Floor Plan

Scale: $\frac{1}{16}$" = 1'-0"



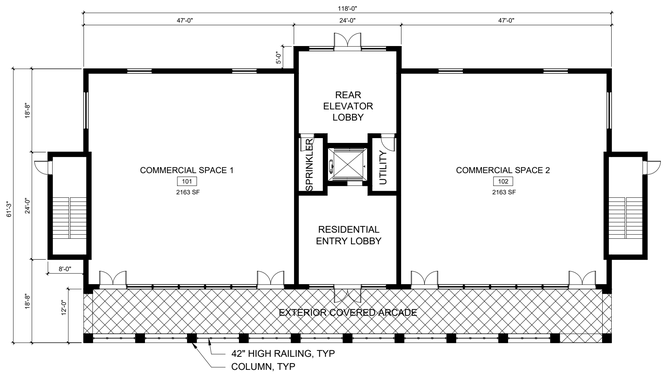
2nd Floor Plan

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-103 - 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

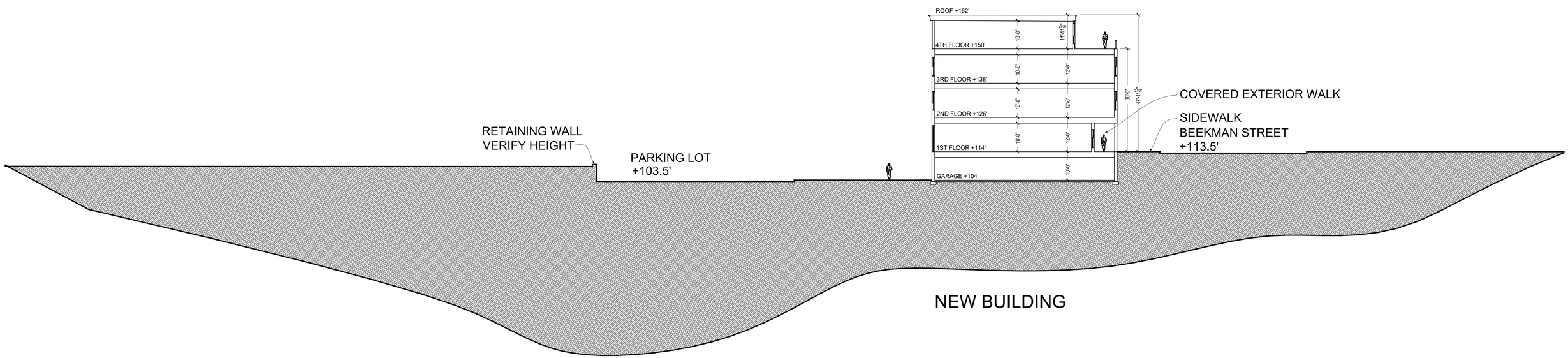
Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

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: 1/16" = 1'-0"
November 28, 2023

REVISIONS:			
NO.	DATE	DESCRIPTION	BY
1	01/29/24	REVISED PER PLANNING BOARD COMMENTS	AJS
2	04/30/24	REVISED PER PLANNING BOARD COMMENTS	AJS
3	05/28/24	REVISED PER PLANNING BOARD COMMENTS	AJS
4	06/25/24	REVISED PER PLANNING BOARD COMMENTS	AJS



Site Section Diagram

Scale: $\frac{1}{16}$" = 1'-0"

Site Plan Application

Sheet A-104 - Site Section Diagram

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

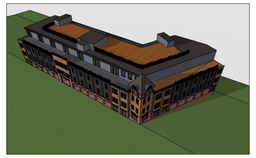
Architect:
Aryeh Siegel, Architect
84 Mason Circle
Beacon, New York 12508

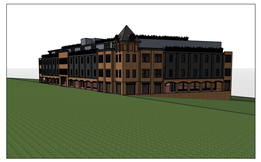
Site / Civil Engineer:
Colliers Engineering & Design
555 Hudson Valley Avenue - Suite 101
New Windsor, NY 12553

Surveyor:
Automated Construction Enhanced Solutions, Inc.
1229 Route 300 - Suite 4
Newburgh, NY 12550

45 Beekman Street
Beacon, New York
Scale: 1/16" = 1'-0"
November 28, 2023



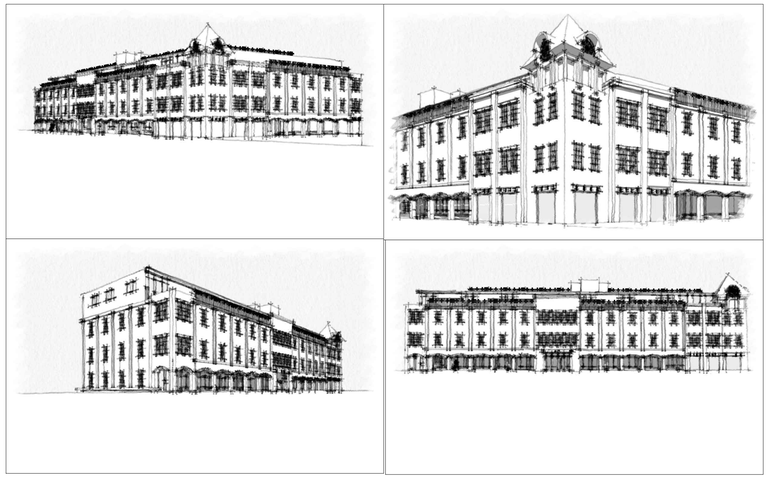






















Site Plan Application

Sheet A-105 - Elevations

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: 1/16" = 1'-0"
November 28, 2023

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

Colliers Engineering & Design

June 25, 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 Engineering and Surveying dated February 12 & 14, 2024 and May 13, 2024: KARC Planning Consultants dated February 12, 2024, May 13, 2024, and June 10, 2024; CM Traffic Consultants dated February 9, 2024, and NYSDOT comments dated February 14, 2024. The comments have been repeated here for clarity:

Lanc & Tully Engineering and Surveying dated 2/12/24:

General Comments:

Comment 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.*

Response 1: Comment noted. A plan will be provided pending NYSDOT response to proposal to acquire additional site area from the Beekman Street R.O.W.

Comment 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.*

Response 2: Attached please find an Inflow & Infiltration (I&I) Study for the project site.

Comment 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.*

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Response 3: **Attached please find Signed & Sealed copies of the latest survey mapping.**

Comment 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.*

Response 4: **A portion of the property lines for tax lots 781983 & 689990 are proposed to be adjusted and additional right-of-way dedicated to the City of Beacon. The adjusted property lines have been established by the project surveyor via a standard offset of 25 feet from the centerline of the respective adjacent roadway. Sheet 1 of 4, "Boundary Survey", depicts the actual property line for these parcels from the deed and includes a line table of the adjusted bearings and distances. A copy of Deed Doc. #: 02 2019 1172 for Tax Lot's 781983 & 689990 is attached for your reference.**

Comment 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.*

Response 5: **Refer to the latest architectural design plans included with this submission.**

Comment 6: A stormwater maintenance and access agreement shall be prepared for the project and provided for review.

Response 6: **Comment noted. This will be provided upon pending NYSDOT response to proposal to acquire additional site area from the Beekman Street R.O.W.**

Comment 7: As the project progresses, the project engineer shall prepare a construction cost estimated for all public improvements and submitted for review.

Response 7: **Comment noted. This will be provided upon pending NYSDOT response to proposal to acquire additional site area from the Beekman Street R.O.W.**

Comment 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.

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Response 8: **The current development proposal for the project is:**

- **64 Residential Units (33, 1-Bedroom Units & 31, 2-bedroom Units)**
- **14,892 Sq. Ft. of Commercial Space**

The estimated flows from the updated development are 11,950 GPD. The prior will serve letter dated 1/25/2024 from Superintendent Balicki was for an estimated demand of 11,810 GPD. As noted above, the project's estimated demand increased slightly to 11,950 GPD however, this total does not account for the allowable 20% reduction for water saving fixtures for the commercial space.

Sheet 1 of 18:

Comment 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."

Response 1: **The above note has been added to the "General Information" notes on the Cover Sheet as requested.**

Sheet 2 of 18:

Comment 1: Based upon notes that appear on the plan, additional subsurface utility information for the project is still being acquired. The applicant should note that status of the data collection, and when the data collection should be completed by.

Response 1: **Attached please find Signed & Sealed copies of the latest survey mapping which has been referenced in the Site Plans.**

Comment 2: The size and material of each of the utility line (sewer, water, and drainage) in the roads adjacent to the project should be provided on the plan.

Response 2: **The updated survey maps include the pipe sizes of existing utilities and pipe material as known from additional investigations and available mapping.**

Comment 3: Some utilities shown are incomplete as to showing where they run to. Example being the sewer line running down Beekman Street.

Response 3: **Attached please find Signed & Sealed copies of the latest survey mapping.**

Comment 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.

Response 4: **Comment noted and addressed.**

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Sheet 4, 5, & 6 of 18:

Comment 1: The proposed grading behind the double tier retaining wall system should be reviewed and adjusted as necessary.

Response 1: Based on the proposal to acquire additional site area, the double tier retaining wall is no longer required. The proposed site grading has been revised.

Comment 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.

Response 2: Additional contour and/or spot elevations have been included in the above referenced area.

Sheet 7 & 8 of 18:

Comment 1: The plans shall show the location of the roof leaders for Building No. 1 and 2, and where they run to.

Response 1: Locations for the roof leaders have not yet been confirmed by the project architect, however the revised site plans propose a roof leader manifold pipe adjacent to a few sides of the building (some potential connection points have been provided on the plans) or a drainage pipe is near the building for connections.

Comment 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.

Response 2: The suggested connection point within Beekman Street would alter the existing drainage patterns on the site. The connection point of the stormwater system within High Street has been maintained. However, the primary drain line leaving the site was relocated behind (northwest) building #2.

Comment 3: The applicant should consider separating the fire line and domestic water service line on the interior of the building.

Response 3: Comment noted. The proposed water services for the buildings have not yet been confirmed. This will be reviewed with the project architect.

Comment 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

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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.

Response 4: **The proposed rerouting of the on-site 12" sewer line is now proposed to connect to a remaining portion of the existing line on the northern side of Beekman Street which then connects to an existing sewer manhole on the southern side of the street. The line is no longer proposed to connect in High Street.**

Comment 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 connections 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.

Response 5: **During the investigation of the existing sewer main, service connections were observed upstream of the proposed doghouse MH, S-107. Therefore, no changes are proposed upstream of S-107 in order to maintain the existing sanitary services.**

Comment 6: The size and material of the water services lines shall be noted on the plans.

Response 6: **The proposed water pipe material has been called out on the Utility Plan. The proposed size has not yet been confirmed.**

Sheet 13 of 18:

Comment 1: A pavement restoration detail shall be provided for any work within Beekman Street and/or High Street.

Response 1: **The requested detail has been added to Sheet #14 of site plans.**

Sheet 15 of 18:

Comment 1: Note No. 2 shall be revised to note the use of ductile iron pipe, not HDPE pipe for water.

Response 1: **Note #2 of the "Water Notes" has been revised as requested.**

Comment 2: Note No. 4 shall be revised to eliminate the wording "or approved equal" after the word "Mueller".

Response 2: **Note #4 of the "Water Notes" has been revised as requested.**

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Stormwater Pollution Prevention Plan:

Comment 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.

Response 1: Comment noted. Responses to SWPPP review comment are provided below.

Lanc & Tully Engineering and Surveying dated 2/14/24:

Preliminary SWPPP Review:

Comment 1: The pages shall be numbered to correspond with the "Table of Contents" at the front of the report.

Response 1: Comment noted. Included in this submission is a Stormwater calculation memo summarizing the changes to the stormwater design based on the latest site plan. A Full Stormwater Pollution Prevention Plan shall be submitted after pending NYSDOT response to proposal to acquire additional site area from the Beekman Street R.O.W.

Comment 2: The "Introduction" notes the use of two (2) bioretention basins, but the plans only show one. The report should be updated to reflect the actual practices to be used as shown on the plans.

Response 2: Comment noted. The SWPPP narrative shall be revised to state that a single bioretention basin is proposed along with a subsurface detention system and hydrodynamic separators.

Comment 3: Provide Existing Drainage Map and Proposed Drainage Map on larger sheets so that they are at proper scale and legible.

Response 3: Comment noted. Full sized, to scale, watershed maps will be provided with the Full SWPPP. See response #1.

Comment 4: Soil testing shall be performed at the site to verify the types of soils present, infiltration rate of soils, depth to bedrock, and depth to groundwater. It should be noted that joint soil testing shall be conducted with the City Engineer's office present.

Response 4: Comment noted. CED shall schedule soil testing with the City Engineer's office after the pending NYSDOT response to proposal to acquire additional site area from the Beekman Street R.O.W. is finalized.

Comment 5: At the end of the 4th paragraph on page 9, it notes the 75% required for water quality volume as 1.148 acres. As the existing impervious area is 1.90 acres, the 75% water quality volume equates to 1.43 acres. The report, and the calculations for "Require WQv" below, shall be updated.

Colliers Engineering & Design

Response 5: **Comment noted, the redevelopment treatment calculation is included in the Stormwater calculation memo, included with this submission.**

Comment 6: The "Project Site" call out in the figure shown under the "Water Quality Volume" section on page 10 should be adjusted, as the project is located in Dutchess County, not Orange County as currently depicted.

Response 6: **The location map has been updated to match the project site.**

Comment 7: The measurements for the "Filter Width" and "Filter Length" listed in the "Determine Actual Bio-Retention Area" on the back of the calculation page in Appendix 3 should be checked or provide notes in the columns to the right on the table as to how these measurements were arrived at.

Response 7: **The filter width and filter length measurements on the GI worksheet are used to determine the area of the bioretention basin. Because the proposed basin is not a rectangle, for purposes of calculating the bioretention area on the GI work sheet, the filter length was set to "1" and the actual area, matching the site plans and Hydro CAD model, was entered as the filter length.**

Comment 8: Pretreatment is required for the proposed bio-retention area in accordance with Section 6.4.3 of the NYS Stormwater Management Design Manual. The bottom of Page 16 of the states "Flush curbs with rip rap leading to grass filter strips …", but the plans and detail on Sheet 17 of 18 do not show any pretreatment for the bioretention area. The plans, construction detail, and SWPPP shall be updated for the bioretention basin to employee pre-treatment as required by NYSDEC.

Response 8: **Pretreatment for the bioretention basin is provided from a proposed forebay. The pretreatment has been seized to provide greater than 25 % the WQv of the tributary area (386 CF). supporting calculation shall be provided in the revised full SWPPP.**

Comment 9: Although the SWPPP discusses the bio-retention basin and hydrodynamic separator, it should be updated to discuss the proposed Stormtech subsurface system.

Response 9: **Comment noted. The Full SWPPP shall be updated to discuss the subsurface detention system. Please note that no infiltration credit has been taken for this subsurface system. The system design may be updated based on the pending soil testing.**

Commet 10: The plans note the hydrodynamic separator to have to inverts going out. Where is the 2nd line out going to? It appears that this should be re-labeled as the line behind the building should be directed into the structure.

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Response 10: **The Hydrodynamic separator is intended to have a single outlet and multiple inlets. The site plans have been revised to correct this Typo.**

Comment 11: Structure MH S-7 should be checked to ensure that it is not compromised structurally based upon the close proximity of the 3 pipes entering the structure.

Response 11: **Comment noted, the drainage pipes and structures in this location have been revised per the latest site layout.**

Comment 12: Under the "End of Project" section of the report, this shall also note that a topographic as-built shall be provided for the stormwater facilities, as well as a certification letter being provided to the City of Beacon by the project engineer certifying that the stormwater facilities were constructed in accordance with the SWPPP and plans.

Response 12: **The requested language has been added to the SWPPP narrative. An as-built of the constructed stormwater facilities will be required prior to submitting and Notice of termination.**

Comment 13: The bio-retention detail on Sheet 17 of 18 shall be updated to include elevations for all components of the system. This would also apply to the subsurface system.

Response 13: **Comment noted, A chart with the relevant information has been added to the detail.**

Comment 14: The elevation of the outlet control structure grate for the bio-retention facility should be compared to that of the elevation in the SWPPP, and the two coordinated.

Response 14: **Comment noted, the HydroCAD model and Site plans have been revised for consistency.**

Comment 15: There is concern that during the storm events the bio-retention facility will drain out through the curb cut on the lower access drive, as the elevation of this curb cut is 101.4. The storage abilities of the bio-retention facility shall be further evaluated, along with the grading of the facility.

Response 15: **The Site grading and size of the basin have been revised to eliminate potential flooding of the driveway during larger storm events.**

Lanc & Tully Engineering and Surveying dated 5/13/24:

Comment 1: Although the recent sketch plan notes a lot area of 1.97 acres, based upon the areas of the existing lots, and the right-of-way to be acquired, the overall area of the lot to be created appears to be 2.05 acres. The applicant consultants should review this further to determine the actual overall lot area.

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Response 1: **The revised Site Plans reflect the total proposed project site area including the ROW acquisition area as 2.06 acres.**

Comment 2: As previously requested, 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. ***The Applicant has previously noted that the I&I study will be prepared and submitted with a future submission***. The Applicant should provide a status update to this study be completed.

Response 2: **Attached please find an Inflow & Infiltration (I&I) Study for the project site.**

Comment 3: The applicant should provide new elevation views for the new proposed layout and buildings.

Response 3: **Refer to the latest architectural design plans included with this submission.**

Comment 4: Although the applicant has submitted a new sketch layout for the site, based upon the acquiring of the NYSDOT right-of-way, plans should be provided showing all utilities that cross the site and are adjacent to the site to determine if there would be any impact on the current site layout provided.

Response 4: **The attached revised Site Plans utilize an updated survey basemap which further details the existing utility infrastructure based on additional site investigation. Proposed realignment or relocation of existing utilities has been proposed on the Site Plans for review and approval by the City.**

Stormwater Pollution Prevention Plan:

Comment 1: The previously submitted stormwater pollution prevention plan (SWPPP) shall be revised once the layout of the project has been determined.

Response 1: **Comment noted. Included in this submission is a Stormwater calculation memo summarizing the changes to the stormwater design based on the latest site plan. A Full Stormwater Pollution Prevention Plan shall be submitted pending NYSDOT response to proposal to acquire additional site area from the Beekman Street R.O.W.**

KARC Planning Consultants, Inc. 2/12/24:

Comment 1: **Building Placement / Frontage/ Front Yard Setback:** The Applicant has made distinct efforts to comply with the form-based regulations of the Linkage District,

Colliers Engineering & Design

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 design 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)

Response 1: **Please refer to the revised Site Plans provided in this submission. They have been modified to include acquiring additional site area (±0.27 acres) from the Beekman Street R.O.W. which allows Building #1 to be moved closer to Beekman Street. The Landscape Plan has also been revised and includes proposed street trees (some with tree grates in front of Building #2 and other planted areas in front of Building #1), benches and some expanded sidewalk sections.**

Comment 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."

Response 2: **Refer to Sheet #3, Tree Removal Plan, of the Site Plan set for the existing tree location, DBH and species and those proposed for removal.**

Comment 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.

Response 3: **See response #1 above regarding proposed streetscape improvements.**

Colliers Engineering & Design

Comment 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.

Response 4a: The Luminaire Schedule on the Lighting Plan has been revised to include columns regarding color temperature and color rendering index, and each of the proposed light fixtures complies with the Dark Sky initiative.

- 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.

Response 4b: The revised Lighting Plan (Sheet #13) in the Site Plan set provides an updated site lighting design. The design decreased the site lighting to an average of 1.1 fC.

Comment 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.

Response 5: The revised Dimension Plan identifies the 40-foot setback line per the zoning section noted above. Three (3) spaces behind Building #2 encroach into the 40-foot setback.

Comment 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).

Response 6: Images of the updated design have been provided in this submission. submitted. Development of the design will include dimensions with more detailed information on materials, colors, rooftop projections, and dimensions as the design is reviewed and discussed with the Planning Board.

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Comment 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?

Response 7: The project architect has advised that there will be a mix of BMR units and locations reflecting the proportions of proposed apartment sizes and types and that the final selection of BMR unit locations and sizes will be coordinated with the Building Inspector consistent with previous developments.

KARC Planning Consultants, Inc. 06/10/24: (Note that the June 10, 2024 comments are substantially the same as the comments from the May 13, 2024 letter, so they are not repeated in this response.)

Comment 1: **Building Placement / Frontage/ Front Yard Setback:** Relocation of the Beekman Street Building closer to the sidewalk has improved the project's compliance with the intent of the Linkage District design standards as outlined in Section 223-41.21(K)(1), most importantly to "frame" the street with active uses. The added pedestrian arcade along Beekman Street has the ability to further frame and activate the pedestrian space and sidewalk along this prominent corner. We look forward to providing additional comments once architectural elevations and streetscape profiles are provided, as requested below.

Response 1: Comment acknowledged.

Comment 2: **Landscaping Plan:** An updated landscaping plan for the revised layout will be required. Existing Conditions 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 and those to remain. Areas along the street frontage should be "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).

Response 2: See response #1 and #2 above in the 2/12/24 KARC letter.

Comment 3: **Streetscape Improvements:** Section 223-41.21(G) of the Linkage District regulations outlines 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.

Response 3: See response #1 above in the 2/12/24 KARC letter.

Comment 4: **Lighting Plan:** An updated lighting plan for the revised layout will be required.

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Response 4: **Refer to Sheet #13 in the revised Site Plan set.**

Comment 5: **Architecture & Design**: Updated elevations noting major dimensions, materials, colors, rooftop projections, and proposed frontage type(s) for the revised layout will be required.

Response 5: **See response #6 above in the 2/12/24 KARC letter.**

Comment 6: **LWRP Review.** The proposal is located in the area covered by the City's Local Waterfront Revitalization Program (LWRP), requiring a Consistency Determination. The applicant should provide an LWRP consistency justification for the project.

Response 6: **Refer to Cuddy & Feder cover letter.**

CM February 9, 2024 Comments:

Traffic Impact Study

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.

    Response: Comment noted. No further response required.

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.

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Response: The traffic volumes associated with each of the five (5) other area developments considered in the analysis as part of the No-Build traffic volumes are now identified on Figures No. 8 through 22 of the TIS (Appendix A). Additionally, Exhibit No. 1 in Section III.A of the TIS provides additional information on Project location, size and data source. Relevant source information is also now provided in Appendix G of the TIS.

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.

   Response: Comment noted. No further response required.

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.

   Response: Comment noted. No further response required at this time.

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.

      Response: Comment noted.

   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

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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.

Response: As indicated in the study, the signalization of the Tompkins Avenue/Ralph Street intersection is subject to a post construction monitoring to be conducted by the Edgewater Place Project, which is currently under construction. CED recommends that this intersection continue to be monitored as part of that Project to assess the actual traffic volumes at such time that the Edgewater Place Project is fully built out. As is noted in the TIS, the 45 Beekman & High Street Project is estimated to comprise a de minimis of the total traffic volumes 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.

Response: Comment noted. The Applicant supports the City in connecting with NYSDOT to address this intersection and explore modifications at this location to improve the existing and future traffic operations.

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.

Response: Comment noted. No further response required.

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.

Response: Comment noted. No further response required.

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

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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.

Response: Comment noted. No further response required.

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.

Response: As discussed in the TIS, "Do Not Block Driveway" signage and pavement markings is recommended to be installed along eastbound Tompkins Avenue at the driveway, subject to the approval of the City, to allow for vehicles entering and exiting the site at this location to do so freely.

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.

Response: Comment noted. Given changes in the Project and development program the TIS now reflects the proposed alternative building design.

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.

Response: The parking analysis has been revised based on the changes in the development program. As discussed further in the TIS, per the City Code the Project requires a total of 109 parking spaces, however based on the Shared Parking Analysis a total of 88 parking spaces are provided on the site. In accordance with City Code Section 223-41.21.F.(3), the Applicant is seeking a modification of the required parking spaces. Note that under the potential modifications to the City being considered by the City Council, the Project would be Code compliant with the 88 proposed parking spaces.

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2. While CM agrees with methodology of the Shared Parking Analyses, CM requests that CED provide analyses without the Rail Credit for review.

   Response: The TIS provides the Shared Parking Analysis both with and without the rail credit. However as noted in the TIS, the site plan proposes to provide a total of 88 parking spaces, which is the identified number of parking spaces required without the rail credit.

Site Plan

1. ADA-compliant curb ramps should be provided at the Site Access on Beekman Street.

   Response: Refer to the Revised Site Plans provided with this submission. The site driveway access to Beekman Street is proposed to have a concrete apron to allow for the existing sidewalk elevation to be maintained across the driveway and therefore not requiring curb ramps.

2. ADA-compliant curb ramps and a striped crosswalk should be provided at the Site Access on Tompkins Avenue.

   Response: Same site driveway access apron as Beekman Street is proposed for the Tompkins Avenue access. See response #1 above.

3. Is sidewalk access to Tompkins Avenue possible along the driveway?

   Response: Proposed drainage improvements alongside the site driveway limits the space available to include a sidewalk along this 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.

   Response: Crosswalk striping has been included as requested. Refer to the revised Site Plans include in this submission.

5. Can a crosswalk be provided internally connecting the two buildings?

   Response: An internal crosswalk is not proposed at this time.

6. The plans should depict the Highway Boundary.

   Response: Property boundaries and associated highway R.O.W. are depicted on the Site Plans per the project survey.

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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.

   Response: Comment noted.

NYSDOT February 14, 2024 Comments

1. For their trip generation you used ITE 220 Multifamily housing and used the adjacent street volumes. The difference between the adjacent trips and peak hour trips is 8 trips in the AM peak and 13 trips in the peak hour. The greatest trips discrepancy is for the commercial aspect of the project. You used ITE 822 for a 14,088 sq.ft of trip retail between the two buildings. The difference between the peak and adjacent peak is 70 trips is the AM and 86 trips in the PM peak. However on their site plans you state half of the commercial space will be used for office space which would bring the retail trips lower overall.

   Response: It is the opinion of CED that the traffic generation estimates utilized in the study accurately reflect the potential traffic generation of the development during each of the peak hours. The ITE Peak Hour of Adjacent Street Traffic rates represent the traffic generation of the Project during the typical commuter peak hours, which are the existing peak hours of the roadway. The peak hour of generator rates represents the peak hours of project generated traffic, which typically does not coincide with the peak hours of the roadway. Furthermore, the traffic generation estimates could be considered conservative when compared to ITE data for Land Use 230 - Low-Rise Residential with Ground-Floor Commercial. A comparison of the Weekday AM and PM Peak Hour traffic generation for the Project based on Land Use 230 as compared to the total traffic generation assumed in the TIS is provided in the table below. As shown in the table below, ITE Land Use 230 indicates that the Project could generate significantly lower traffic than has been assumed in the TIS.

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	Entering Volume	Exiting Volume	Total Volume
TIS Total Traffic Generation (Including 10% Internal Credit in PM Peak Hour)			
Weekday AM Peak Hour	32	38	70
Weekday PM Peak Hour	77	64	141
ITE Land Use 230 Traffic Generation – Peak Hour of Adjacent Street Traffic Rates			
Weekday AM Peak Hour	6	22	28
Weekday PM Peak Hour	16	7	23
ITE Land Use 230 Traffic Generation – Peak Hour of Generator Rates			
Weekday AM Peak Hour	6	22	28
Weekday PM Peak Hour	16	9	25

It should also 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, as noted, provides a somewhat more conservative analysis of traffic conditions.

2. Please provide more information on the other project and show a table of their traffic generation to use with figures 8-13. A map of the other project locations will also help in the review.

Response: **Individual figures for each of the five (5) other development projects considered as part of the No-Build traffic volumes have now been included in the TIS on Figures No. 8 through 22. Additionally, Exhibit No. 1 in Section III.A of the TIS provides additional information on Project location, size and data source. Relevant source information is also now provided in Appendix G of the TIS.**

3. A crash history should be included for the project and include the accidents for the last five years for the intersection of Route 9D and Tompkins Ave.

Response: **A 5-year crash history for each of the study area intersections has been obtained and reviewed as identified in Section II.C of the TIS.**

4. For the signal timing and phasing modification/coordination modification improvements what would the LOS and delay be if the signal at Tompkins was taken out?

Response: **Separate analyses have been conducted with and without the Tompkins Avenue traffic signal as is now summarized in Section III.F of the TIS. Note that the LOS and delay at Tompkins Street does not significantly change with the signal timing/phasing and coordination modifications at the Beekman Street/Church Street intersection.**

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5. With the new signal at Tompkins and Route 9D what would be the overall time for vehicles to get through the corridor.

   Response: An arterial level of service analysis has been conducted for NYS Route 9D as discussed in Section III.F of the TIS.

If you have any questions regarding the above project responses, please feel free to call me at 845.564.4495. We look forward to the continued discussions with the Board on this project at the next available meeting.

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

Colliers
Engineering
& Design

June 25, 2024

John Russo, P.E.
Lanc & Tully Engineering and Surveying, P.C.
P.O. Box 687
Goshen, NY 10924

Beekman Arts Center LLC & Bay Ridge Studios LLC
Infiltration & Inflow Investigation
Tax Lots: 5955-19-706012, 5954-26-689990, and 5954-26-781983
Project No. 23010468A

Dear Mr. Russo,

Colliers Engineering and Design (CED) has completed an infiltration and inflow (I&I) investigation at the above referenced project as requested and in conjunction with the current application before the City Planning Board. The investigation was conducted on June 19, 2024, at the existing building located at 45 Beekman Street. The subject parcels contain a single, 2-story building with a small basement area located in the southwest corner of the structure. The building is currently used for art studio space and storage.

The I&I investigation consisted of an interior and exterior visual inspection of the building to determine the location of roof leader discharge points, and to determine if there are any floor drains or sump pumps in the building. All the existing roof leaders were observed to be on the exterior of the building and each one discharges to the ground surface. An interior sump pit (±24" diameter) & pump was observed in the basement of the building. The discharge from the sump pump does not appear to discharge to the exterior of the structure and is assumed to be tied into the sanitary sewer piping of the structure. No floor drains were observed in the building. The attached exhibit depicts the locations of these existing roof leaders and sump pump.

Based on our observations, CED believes that there is a single stormwater connection (basement sump pump) from the existing structure at 45 Beekman Street to the City of Beacon's sanitary sewer system. The I&I generated from the sump pump is not metered and an accurate volume is unquantifiable based on the intermittent activation of the pump. However, this will be eliminated upon approval and construction of the proposed development.

Should you have any questions, 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

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SURVEY REFRENCE:

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 11/3/23, LAST REVISED 6/6/24.

Tax Grid ID #: 5955-19-688020

found iron rod

found iron rod

lands now or formerly of
Owner: Neal Wallace & Emma Bredin
Document #: 02 2020 4747
Tax Grid ID #: 5955-19-688013

lands now or formerly of
Owner: Hsin-Yi Wang
Document #: 02 2020 4764
Tax Grid ID #: 5955-19-701025

lands now or formerly of
Owner: Thomas James William Wehner
& Muchen Zhu
Document #: 02 2021 602
Tax Grid ID #: 5955-19-707026

R.O.W. – line (typ)

adj. property line (typ)

found iron rod

lands now or formerly of
Owner: Edwin Chong & Wen Yu Wang
Document #: 02 2021 205
Tax Grid ID #: 5955-19-686006

found iron rod

lands now or formerly of
Robert Fio Rito
Document #: 02 2000 4787
Tax Grid ID #: 5954-26-686999

N 75°48'16" E 33.72'

N 07°46'26" E 75.00'

N 70°51'26" E 27.20'

N 07°46'26" E 119.20'

N 77°05'06" E 120.00'

N 12°54'54" W 9.34'

N 81°14'06" E 47.56'

Existing roof leaders discharging to grade (Typ.)

lands now or formerly of
Owner: Michael Garza
& Sharon Vendriger-Garza
Document #: 02 2015 1434
Tax Grid ID #: 5955-19-712027

concrete retaining wall

conc. pad

refuse dumpster area

light pole (typ)

1 story frame commercial building

2 story frame commercial building

covered 3 story fire escape

Approx. basement area

Existing sump pump

covered open brick porch w/stairs

ac-unit (typ)

3 story frame commercial building

1 story frame addition

covered stairway

mail box (typ)

curb island (typ)

covered open porch

steel bollard (typ)

paved drive and parking

156.30' S 04°30'44" E

88.14' S 65°12'46" W

50.70' S 42°59'46" W

Subject Property
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.

rock ret. wall runs generally along property line

chain link fence

elec. main (typ)

paved drive

Right-of-Way per Doc. ID: 02 2019 1172
Area: 1,586.9 s.f. - 0.363 Ac.

S 07°46'26" W 50.32'

S 30°38'14" E 66.80'

S 35°10'14" E 37.45'

30.00'

chain link fence

sewer manhole on exposed casting

77.73' N 39°58'25" E 128.74'

40.00' S 23°47'20" W

35.13' S 20°06'05" W

found 3"x3" marble monument at corner

36.90' S 71°57'26" W

57.95' S 58°16'16" W

lands now or formerly of
Beacon Community Development Agency, Inc.
Beacon Urban Renewal Agency, Inc.
New York State D.O.T.
Liber 1488 at Page 415 & Page 421

paved drive ingress/egress to "Beacon Pop Mart"

30" dia. concrete flared end outlet

32.57' S 27°23'16" E

steel guard rail

light pole (typ)

u-pole #70302

NYS DOT R.O.W. line (typ)

water valve (typ)

OHW

25.0'

30 0 30

SCALE : 1" = 30'
SELECT LINEAR UNIT OF MEASURE

2023\23010468A\Engineering\Exhibits\C-EXBT.dwg C-XX-EXHIBIT By: MICHAEL.SABA

Colliers Engineering & Design
www.colliersengineering.com

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REV	DATE	DRAWN BY	DESCRIPTION
1	06/25/24	KAS	REVISED PER PLANNING BOARD COMMENTS

EXHIBIT
FOR
BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

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-EXBT

SHEET TITLE: INFILTRATION & INFLOW INVESTIGATION
FIELD BOOK: XX PAGE: XX

SHEET NUMBER: 1 of 1

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

Colliers Engineering & Design

Memorandum

To: City of Beacon Planning Board

From: Connor P. McCormack, P.E.

Date: June 25, 2024

Subject: 45 Beekman Street & High Street – Mixed-Use Project
Stormwater Calculation Memo

Project No.: 23010468A

Included in this memorandum are the preliminary stormwater calculations corresponding to the latest site plans for 45 Beekman Street & High-Street Mixed-use project. The plans are dated 6/25/2024. A Full Stormwater Pollution Prevention Plan shall be submitted after pending NYSDOT response to the proposal to acquire additional site area from the Beekman Street R.O.W.

Redevelopment Calculation

The latest site plan has reduced the total amount of proposed impervious surface. Therefore Table 3 in the SWPPP has been updated, see below.

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	2.12	0.21	11%

The project is considered redevelopment with an increase in impervious area. Therefore, the stormwater design will utilize treatment for new construction and redevelopment. A bioretention basin is proposed to **provide treatment for 0.32 Acres of impervious area**. **0.21 acres being treated by the Bioretention basin is consider the "new construction" therefore the remaining 0.11 acres will be credited to the redevelopment number.**

The remaining redevelopment treatment will come from alternative practices and calculated per section 9.2.1.B.IV of the NYS Stormwater Design Manual.

- %WQv Alternative = (25 – (%IC reduction + % WQv by Standard SMPs + % runoff reduction) *3
- %WQv Alternative =(25 - (0.11acres / 1.9 acres))*3
- %WQv Alternative =(25 - 5.8%)*3 = 57.6%
- Required impervious areas treated by Alternative practice = 57.6% * 1.9 Acres = 1.09 acres
- Area treated by alternative practice = **1.194 Acres (watersheds PWS-3, PWS-4 & PWS-5).**

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Peak Flow mitigation

Stormwater mitigation is provided to attenuate the required storm events. See below for the Pre vs Post peak runoff comparison.

Storm Events	Existing	Proposed	Diff.	Percent
1	2.46	2.26	-0.20	-8.13%
10	9.64	9.17	-0.47	-4.88%
100	19.42	19.36	-0.06	-0.31%

Water Quality Volume and RRV

Please see below for the NYSDEC Gi worksheet showing the WQv and RRv provided by the proposed Bioretention Basins. Please note that the basin is sized to treat both the new construction area (0.21 acres) and a portion of the redevelopment area (0.11 acres) for a total of 0.32 acres.

Colliers Engineering & Design

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	0.32	0.32	1.00	0.95	1544.93	1.40	Bio P-1
Enter Impervious Area Reduced by Disconnection of Rooftops			100%	0.95	1,545	<<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		1,545	*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***	**1404**	***ft^2***	

Determine Actual Bio-Retention Area			
Filter Width	1436	*ft*	
Filter Length	1	*ft*	
Filter Area	1436	*ft^2*	
Actual Volume Provided	1580	*ft^3*	

Determine Runoff Reduction			
Is the Bioretention contributing flow to another practice?	No	Select Practice	
RRv	632		
RRv applied	**632**	***ft^3***	***This is 40% of the storage provided or WQv whichever is less.***
Volume Treated	913	*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*

NEW YORK STATE DEPARTMENT OF STATE
COASTAL MANAGEMENT PROGRAM

Coastal Assessment Form

A. INSTRUCTIONS (Please print or type all answers)

1. State agencies shall complete this CAF for proposed actions which are subject to Part 600 of Title 19 of the NYCRR. This assessment is intended to supplement other information used by a state agency in making a determination of significance pursuant to the State Environmental Quality Review Act (see 6 NYCRR, Part 617). If it is determined that a proposed action will not have a significant effect on the environment, this assessment is intended to assist a state agency in complying with the certification requirements of 19 NYCRR Section 600.4.

2. If any question in Section C on this form is answered "yes", then the proposed action may affect the achievement of the coastal policies contained in Article 42 of the Executive Law. Thus, the action should be analyzed in more detail and, if necessary, modified prior to either (a) making a certification of consistency pursuant to 19 NYCRR Part 600 or, (b) making the findings required under SEQR, 6 NYCRR, Section 617.11, if the action is one for which an environmental impact statement is being prepared. If an action cannot be certified as consistent with the coastal policies, it shall not be undertaken.

3. Before answering the questions in Section C, the preparer of this form should review the coastal policies contained in 19 NYCRR Section 600.5. A proposed action should be evaluated as to its significant beneficial and adverse effects upon the coastal area.

B. DESCRIPTION OF PROPOSED ACTION

1. Type of state agency action (check appropriate response):

(a) Directly undertaken (e.g. capital construction, planning activity, agency regulation, land transaction) ____
(b) Financial assistance (e.g. grant, loan, subsidy) ____
(c) Permit, license, certification __X__

2. Describe nature and extent of action: Application for Site Plan & Subdivision (Lot Merger) Approval for Mixed-Use Development.

3. Location of action:

Dutchess	Beacon	45 Beekman Street & High Street Tax Grid Nos.: 5955-19-706012; 5954-26-781983 & 689990
County	City, Town or Village	Street or Site Description

4. If an application for the proposed action has been filed with the state agency, the following information shall be provided:

(a) Name of applicant: 1. Beekman Art Center LLC; and 2. Bay Ridge Studios LLC

(b) Mailing address: 1. 114-11 Lefferts Blvd., South Ozone, NY 11420; and 2. 25-02 Francis Lewis Blvd., Flushing, NY 11358

(c) Telephone Number: Area Code (917) 468-8473 or 718-843-9550

(d) State agency application number: N/A

5. Will the action be directly undertaken, require funding, or approval by a federal agency?

Yes _____ No __X__ If yes, which federal agency?_____

C. COASTAL ASSESSMENT (Check either "YES" or "NO" for each of the following questions)

	YES	NO
1. Will the proposed activity be located in, or contiguous to, or have a significant effect upon any of the resource areas identified on the coastal area map:		
(a) Significant fish or wildlife habitats?	__	X
(b) Scenic resources of statewide significance?	__	X
(c) Important agricultural lands?	__	X
2. Will the proposed activity have a significant effect upon:		
(a) Commercial or recreational use of fish and wildlife resources?	__	X
(b) Scenic quality of the coastal environment?	__	X
(c) Development of future, or existing water dependent uses?	__	X
(d) Operation of the State's major ports?	__	X
(e) Land and water uses within the State's small harbors?	__	X
(f) Existing or potential public recreation opportunities?	__	X
(g) Structures, sites or districts of historic, archeological or cultural significance to the State or nation?	__	X

3. Will the proposed activity involve or result in any of the following:

(a) Physical alteration of two (2) acres or more of land along the shoreline, land under water or coastal waters?	___	X
(b) Physical alteration of five (5) acres or more of land located elsewhere in the coastal area?	___	X
(c) Expansion of existing public services of infrastructure in undeveloped or low density areas of the coastal area?	___	X
(d) Energy facility not subject to Article VII or VIII of the Public Service Law?	___	X
(e) Mining, excavation, filling or dredging in coastal waters?	___	X
(f) Reduction of existing or potential public access to or along the shore?	___	X
(g) Sale or change in use of state-owned lands located on the shoreline or under water?		
(h) Development within a designated flood or erosion hazard area?	___	X
(i) Development on a beach, dune, barrier island or other natural feature that provides protection against flooding or erosion?	___	X

4. Will the proposed action be located in or have a significant effect* upon an area included in an approved Local Waterfront Revitalization Program? ___ *

* The Action will not have a significant effect upon an area in an approved LWRP

D. SUBMISSION REQUIREMENTS

If any question in Section C is answered "Yes", AND either of the following two conditions is met:

Section B.1(a) or B.1(b) is checked; or
Section B.1(c) is checked AND B.5 is answered "Yes",

THEN a copy of this completed Coastal Assessment Form shall be submitted to:

New York State Department of State
Office of Coastal, Local Government and Community Sustainability
One Commerce Plaza
99 Washington Avenue, Suite 1010
Albany, New York 12231-0001

If assistance or further information is needed to complete this form, please call the Department of State at (518) 474-6000.

E. REMARKS OR ADDITIONAL INFORMATION

Preparer's Name: Taylor M. Palmer, Esq.
(Please print)

Title: Attorney Agency: Cuddy & Feder LLP (Attorney for Applicant)

Telephone Number: (914) 761-1300 Date: November 28, 2023

Local Waterfront Revitalization Program
Consistency Statement

Premises: 45 Beekman Street, High Street, & High Street, City of Beacon, New York (Tax Parcel IDs: 5955-19-706012, 5954-26-689990 & 781983)

BACKGROUND:

The Premises are comprised of three (3) lots, two (2) of which are currently vacant (High Street & High Street), and a third which is currently improved with a commercial building (45 Beekman Street), as detailed in the below map taken from the Dutchess County Tax Parcel Viewer (*see* ***Image 1*** below). All three (3) lots are classified in the Linkage ("L") Zoning District, with a small portion of 45 Beekman Street lot accessing Tompkins Ave classified in the R1-7.5 Zoning District. The northern, vacant High Street parcel is also within the City's Historic District and Landmark Overlay ("HDLO"). All three (3) lots are located within the easternmost boundary of the City of Beacon's Waterfront Revitalization Management Area Boundary, as is more fully shown in the below map (*see* ***Image 2*** below) that is excerpted from the City's Local Waterfront Revitalization Plan ("LWRP").

Image 1 – Dutchess County Tax Parcel Viewer Image of the Premises:

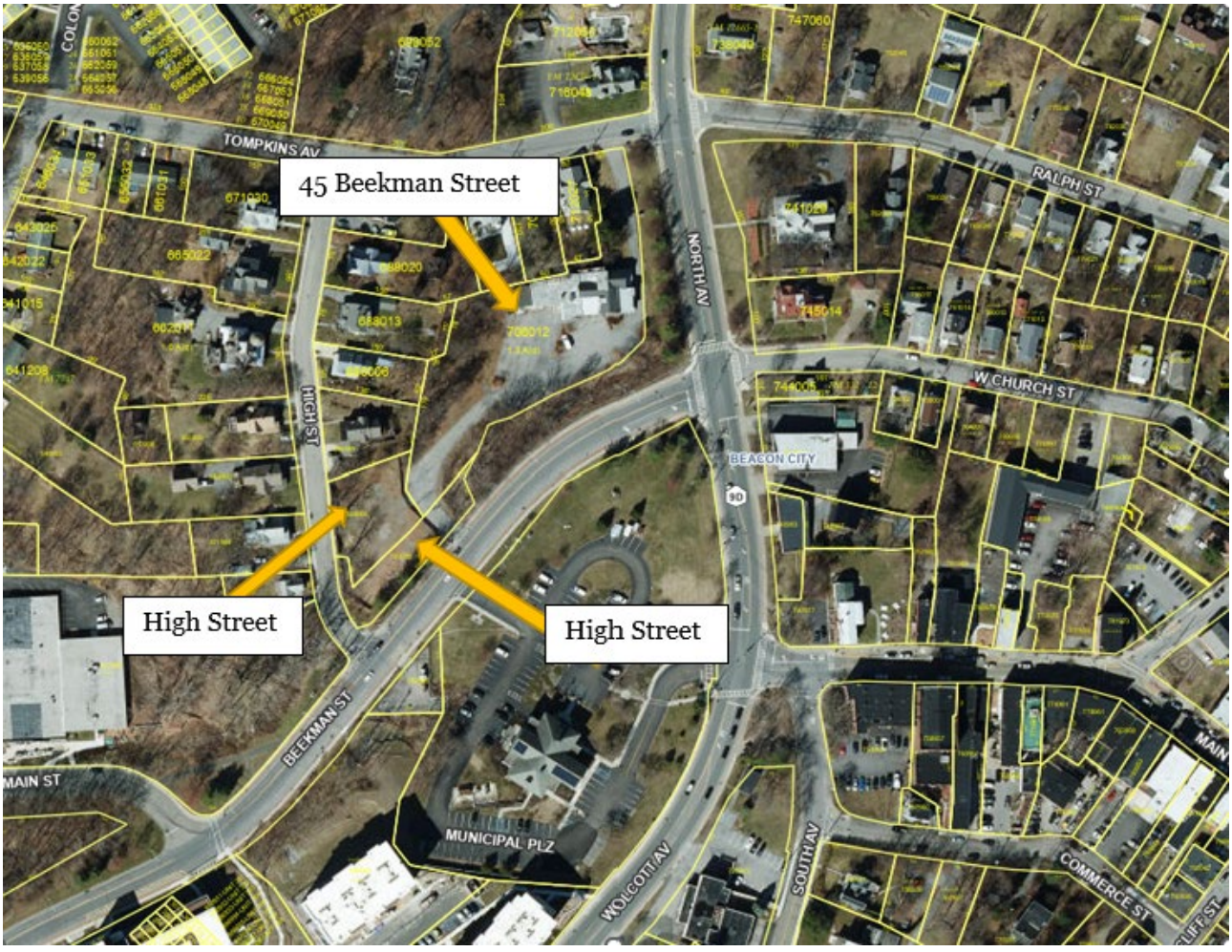
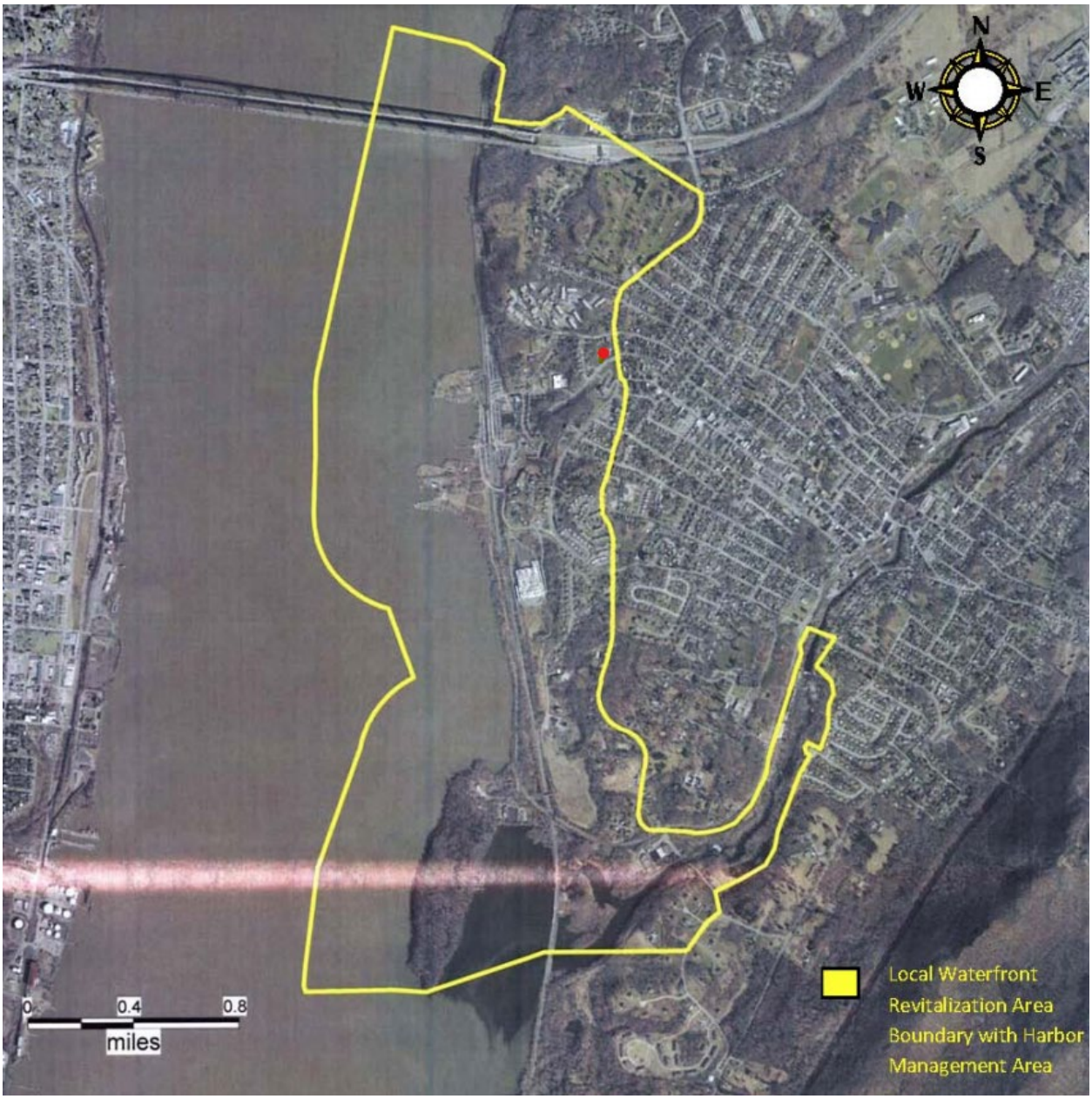


Image 2 – City of Beacon Waterfront Revitalization Management Area Boundary:



Note: The red circle shows the approximate location of the Premises within the Local Waterfront Revitalization Area Boundary.

This LWRP Consistency Statement analyzes the manner in which the Application for Site Plan and Subdivision Approval proposing to construct two (2) mixed use buildings and associated off-street parking (the "Project") is consistent with the LWRP coastal policies related to viewsheds and environmental protection.[1] This LWRP Consistency Statement is submitted by the Applicant in furtherance of the environmental review of the Project and the attendant State Environmental Quality Review Act ("SEQR") documentation submitted by the Applicant.

[1] *See* CITY OF BEACON ZONING CODE §§ 220-5, 220-6 (reviewing agencies must ensure actions impacting this coastal area are consistent with the City's LWRP).

THE PROPOSED MIXED-USE DEVELOPMENT IS CONSISTENT WITH THE POLICIES SET FORTH IN THE LWRP:

The proposed Site Plan and Subdivision Application to develop the Project is consistent with the Policies in the City's LWRP for the following reasons:[2]

POLICY 5 *Encourage the location of development in areas where public services and facilities essential to such development are adequate, except when such development has special functional requirements or other characteristics which necessitates its location in other coastal areas.*

The Project will not place undue pressure on the public water distribution and sanitary sewer system because the City's water and sewer system can adequately serve the Project.

POLICY 6 *Expedite permit procedures in order to facilitate the siting of development activities at suitable locations.*

As is detailed in City of Beacon Zoning Code Section 223-41.19, in part, the purpose of the creation of the Linkage Zoning District is "… to provide a simplified and streamlined review process that facilitates redevelopment in accordance with its provisions and the intent of the Comprehensive Plan." In line with the state purpose of the Linkage District, the mixed-use Project is designed to increase the vitality, attractiveness and marketability of the area of Beekman Street, which lies between Main Street and the Metro-North Train Station.

POLICY 13 *The construction or reconstruction of erosion protection structures shall be undertaken only if they have a reasonable probability of controlling erosion for at least thirty years as demonstrated in design and construction standards and/or assured maintenance or replacement programs.*

There will be no measurable increase in erosion or flooding generated by the Project. Proper drainage and land restoration practices will be followed. The Project will not result in any increased erosion risk to surrounding properties based on these restoration practices.

[2] The following LWRP Policies are inapplicable to the Project: Policy 1 (Revitalization of Waterfront Areas); Policy 2 (Facilitation of Water-Dependent Uses); Policy 7 (Restoration of Coastal Habitats); Policy 8 (Prevent Pollution in the Coastal Area); Policy 9 (Increase Access to Coastal Resources); Policy 10 (Develop Commercial Fishing); Policy 11 (Buildings in the Coastal Area); Policy 15 (Excavation and Dredging Limitations in Coastal Waters); Policy 16 (Publicly Funded Erosion Prevention Measures); Policy 17 (Non-Structural Flooding Measures); Policy 18 (Major Actions in the Coastal Area); Policy 19 (Public Access to Coastal Resources); Policy 20 (Public Access to Water's Edge); Policy 21 (Encouragement of Water-Based Recreation); Policy 22 (Provision of Water-Related Recreation); Policy 23 (Historic Restoration); Policy 25 (Scenic Quality) – the Premises are tucked down below the street level from North Avenue and Beekman Street; Policy 27 (Siting Energy Facilities); Policy 28 (Ice Management Practices); Policy 30 (Discharge of Pollutants into Coastal Waters); Policy 31 (Modifying Water Quality Standards); Policy 32 (Alternative Sanitary Waste Systems); Policy 34 (Watercraft Discharges); Policy 35 (Dredging); Policy 36 (Hazardous Material Shipment); Policy 39 (Transport/Storage/Treatment/Disposal of Solid Wastes); Policy 40 (Discharges from Electric Generating and Industrial Facilities); Policy 42 (Significant Deterioration Land Classification); Policy 43 (Acid Rain Prevention); Policy 44 (Wetland Protection).

POLICY 14 *Activities and development, including the construction or reconstruction of erosion protection structures, shall be* undertaken *so that there will be no measurable increase in erosion or flooding at the site of such activities or development or at other locations.*

There will be no measurable increase in erosion or flooding generated by the Project. Proper drainage and land restoration practices will be followed. The Project will not result in any increased erosion risk to surrounding properties based on these restoration practices.

POLICY 33 *Best management practices will be used to ensure the control of stormwater runoff and combined sewer overflows draining into coastal waters.*

Best management practices will be used to ensure the control of stormwater runoff from the project site. Onsite stormwater management facilities are proposed to mitigate runoff from additional impervious surfaces where currently there is no stormwater control.

POLICY 37 *Best management practices will be utilized to minimize the nonpoint discharge of excess nutrients, nonpoint discharge of excess nutrients, organics and eroded soils into coastal waters.*

Best management practices will be utilized to minimize the nonpoint discharge of excess nutrients, organics, and eroded soils into coastal waters.

POLICY 38 *The quality and quantity of surface water and groundwater supplies will be conserved and protected particularly where such waters constitute the primary or sole source of water supply.*

The Project does not include or require wastewater discharged to groundwater, and is not known to be located within 100 feet of potable drinking water or irrigation sources based on its location within the City Water District. The Project will be connected to the existing public water distribution system. There will be no bulk storage of petroleum or chemicals on-site.

POLICY 41 *Land use or development in the coastal area will not cause national or state air quality standards to be violated.*

The Project will not lead to any violation of the National and State Air Quality Standards, and will comply with the State Implementation Plan.

CONCLUSION:

Accordingly, for the reasons set forth herein, the Applicant requests that this Board consider finding that the Site Plan and Subdivision Application is consistent with the Policies in the City's LWRP.

Colliers
Engineering
& Design

Traffic & Parking Study

November 28, 2023
Revised January 26, 2024
Revised June 24, 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:

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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 10,566 square feet of commercial space and 2,360 square feet of tenant amenity space on the 1st Floor, together with 45 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 4,326 square feet of commercial space on the 1st Floor, together with approximately 19 dwelling units on Floors 2-4. The 45 Beekman Street building will also include 41 garage parking spaces located below the proposed building. In total the Project will provide 88 off-street parking spaces including the 41 garage parking spaces and a total of 47 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. This revised study also addressed comments received from the City of Beacon's Traffic Consultant, Creighton Manning, dated February 9, 2024, and from the New York State Department of Transportation dated

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.

C. Crash Analysis

(Tables A-1, A-2 and A-3)

Historical crash data was obtained from NYSDOT for Beekman Street between W. Main Street & North Avenue (NYS Route 9D) and for North Avenue (NYS Route 9D) between Main Street and Verplanck Avenue encompassing each of the study area intersections. The crash data covers the five-plus year period between January 1, 2018 and July 31, 2023. The crash data is summarized in Table A-1, contained in Appendix B, which identifies each crash by location, date and time, type of accident, roadway conditions, and apparent contributing factors. In addition, Table A-2 provides as further summary of the crash data by intersection location. Finally, average accident rates were calculated for each of the study area intersections and compared to statewide average accident rates for similar type intersections. The accident rates are summarized in Table A-3, contained in Appendix B. A summary of the crash history at each of the study area intersection is provided below:

- **North Avenue (NYS Route 9D) and Verplanck Avenue** – The intersection experienced a total of 22 over the 5+ year study period with a high of seven (7) crashes experienced in 2019. The predominant crash type was rear end crashes (14). The calculated accident rate for the intersection was found to be generally comparable to the statewide average accident rate for similar type intersections.
- **North Avenue (NYS Route 9D) and Tompkins Avenue/Ralph Street** – The intersection experienced a total of 12 crashes over the 5+ year study period with not more than three (3) crashes during any one-year period. The predominant crash type was found to be right angle (8) type crashes. However, it should also be noted that the calculated accident rate for the intersection was found to be slightly lower than but generally comparable to the statewide average accident rate for similar type intersections.
- **North Avenue (NYS Route 9D) and Beekman Street/W. Church Street** – The intersection experienced a total of 12 crashes over the 5+ year study period with not more than four (4) crashes during any one-year period. The predominant crash type was found to be rear end (7) type crashes. The calculated accident rate for the intersection was found to be slightly lower than but generally comparable to the statewide average accident rate for similar type intersections.
- **Wolcott Avenue/North Avenue (NYS Route 9D) and Main Street/Municipal Plaza** – The intersection experienced a total of 17 crashes over the 5+ year study period with not more than five (5) crashes during any one-year period. The predominant crash type was rear end crashes (7) and left turn crashes (4). The calculated accident rate for the intersection was found to be somewhat greater than the statewide average accident rate for similar type intersections.

It should be noted that no crashes were found to have occurred at the intersection of Beekman Street and High Street during the study period.

III. Evaluation of Future Traffic Conditions

A. 2026 No-Build Traffic Volumes

(Figure No. 5 through 28, Appendix G)

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 table below provides additional details of each of these developments.

Exhibit No. 1: Other Development Summary

Project Name	Location	Propose Use & Size	Traffic Data Source
Mirbeau Beacon	7 Craig House Lane City of Beacon	80 Room Hotel & Spa	May 24, 2022 CED Traffic Impact Study
364 Main Street	364 Main Street City of Beacon	6,674 sq. ft. Commercial 20 Apartment Units	August 30, 2021 CED Traffic Study
Edgewater (Edgewater Place)	6 Edgewater Place City of Beacon	309 Apartment Units	February 27, 2017 CED Traffic Impact Study (formerly Maser Consulting)
Beacon Commons	16 West Main Street City of Beacon	62 Apartment Units	June 28, 2022 JMC Traffic Study
Prophecy Theater	1113 Wolcott Avenue City of Beacon	30 Room Hotel 50 Seat Cafe 150 Seat Event Space	February 21, 2022 CED Traffic Impact Study

The data referenced for each of the other developments identified above is provided in Appendix G for reference. Individual figures showing the traffic associated which each of the other developments identified in the table above are provided in Appendix A. The figures are identified as follows:

- Mirbeau Beacon – Figures No. 8, 9 & 10
- 364 Main Street – Figures No. 11, 12 & 13
- Edgewater (Edgewater Place) – Figures No. 14, 15 & 16
- Prophecy Theater – Figures No. 17, 18 & 19
- Beacon Commons – Figures No. 20, 21 & 22

The resulting total traffic volumes associated with these other developments are shown on Figures No. 23, 24, and 25 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. 26, 27, and 28 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. 29 through 32)

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. 29 and 30, respectively while the commercial arrival and departure distributions are shown on Figures No. 31 and 32.

D. 2026 Build Conditions Traffic Volumes

(Figures No. 33 through 38)

The site generated traffic volumes were assigned to the roadway network based on the arrival and departure distributions referenced above. The resulting residential site generated traffic volumes for each of the study area intersections are shown on Figures No. 33, 34 and 35 while the resulting commercial site generated traffic volumes are shown on Figures No. 36, 37 and 38 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. 39, 40 and 41 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, 2A, 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 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.

Capacity analysis was also conducted for this intersection to assess the potential improvements that may result from the identified traffic signal timing, phasing and coordination improvements at the North Avenue (NYS Route 9D) and Beekman Street/W. Church Street, which are discussed further below. While some minor improvements in delays for vehicles exiting both Tompkins Avenue and Ralph Street are projected with these improvements, the Tompkins Avenue eastbound approach is still projected to operate at a Level of Service "F" during all time periods.

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 intersection 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.

   It is noted that due to the proximity of this driveway to North Avenue (NYS Route 9D) vehicles waiting to make turns from eastbound Tompkins Avenue onto North Avenue may queue through the driveway location. In order to ensure vehicles can freely enter and exit the driveway location, "Do Not Block Driveway" signage and pavement markings should be considered to be installed along eastbound Tompkins Avenue at the driveway, subject to the approval of the City.

8. **North Avenue (NYS Route 9D) Arterial Analysis**

   In addition to the above discussed capacity analyses, an Arterial Level of Service analysis has also been conducted to assess the existing and future conditions along North Avenue (NYS Route 9D). The arterial analysis results are provided in Appendix D and are also summarized in Table No. 2 A, contained in Appendix B. The analysis results indicate that the proposed Project will not have a significant impact an overall arterial level of service along North Avenue. It should also be noted that the results do not indicate a significant change in overall corridor operations as a result of the recommended improvements at the North Avenue (NYS Route 9D) and Beekman Street/W. Church Street. However, this is due the fact that the arterial analysis is for North Avenue (NYS Route 9D) only and does not take into account the significant improvements in level of service and delay anticipated along the Beekman Street eastbound approach to North Avenue.

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, P-1A, P-2A, 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. 2 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. 2 – City of Beacon Code Required Parking

Proposed Use	Size	City of Beacon Code Requirement[1]	Required Spaces
45 Beekman Street			
Residential	45 Dwelling Units	1 Space/Dwelling Unit	45 Spaces
Retail Commercial	10,566 sq. ft.	3 Space/1,000 Sq. Ft.	32 Spaces
High Street			
Residential	19 Dwelling Units	1 Space/Dwelling Unit	19 Spaces
Retail Commercial	4,326 sq. ft.	3 Space/1,000 Sq. Ft.	13 Spaces
		Total Required Parking Spaces	**109 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 109 off-street parking spaces per the City Code. As noted above, the Project currently proposes 88 off-street parking spaces, including 41 garages spaces within the 45 Beekman Street building and 47 surface lot parking spaces, which will result in the Project being deficient by 21 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.

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 to 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 F 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 80 parking spaces on a weekday, occurring between 7PM – 8PM and 88 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 a 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 76 parking spaces on a weekday, occurring between 7PM – 8PM and 84 parking spaces on a Saturday also occurring between 1PM – 2PM. Based on this shared parking analysis, it is anticipated that the actual parking demand of the site may be somewhat lower than the 88 proposed on-site parking spaces.

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 88 proposed parking spaces to be provided.

It should also be noted that CED has continued to monitor 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 latest available revision of the City's proposed Local Law dated April 15, 2024 has been reviewed as it relates to the Project. A copy of the April 12, 2024, revision of the proposed Local Law is provided in Appendix B for reference. Under the City's proposed Local Law the Project would be permitted to have a maximum of 109 parking spaces with the appropriate number of parking spaces provided on the site to be determined by the Planning Board based on various criteria including a parking study similar to that discussed above. It is respectfully submitted that under this proposed Local Law the 88 proposed parking spaces would be considered code compliant, and it is the opinion of CED that this is an appropriate number of parking spaces to be provided for the Project.

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.
- To ensure vehicles can freely enter and exit the Tompkins Avenue driveway location, "Do Not Block Driveway" signage and pavement markings should be considered to be installed along eastbound Tompkins Avenue at the driveway, subject to the approval of the City.

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.

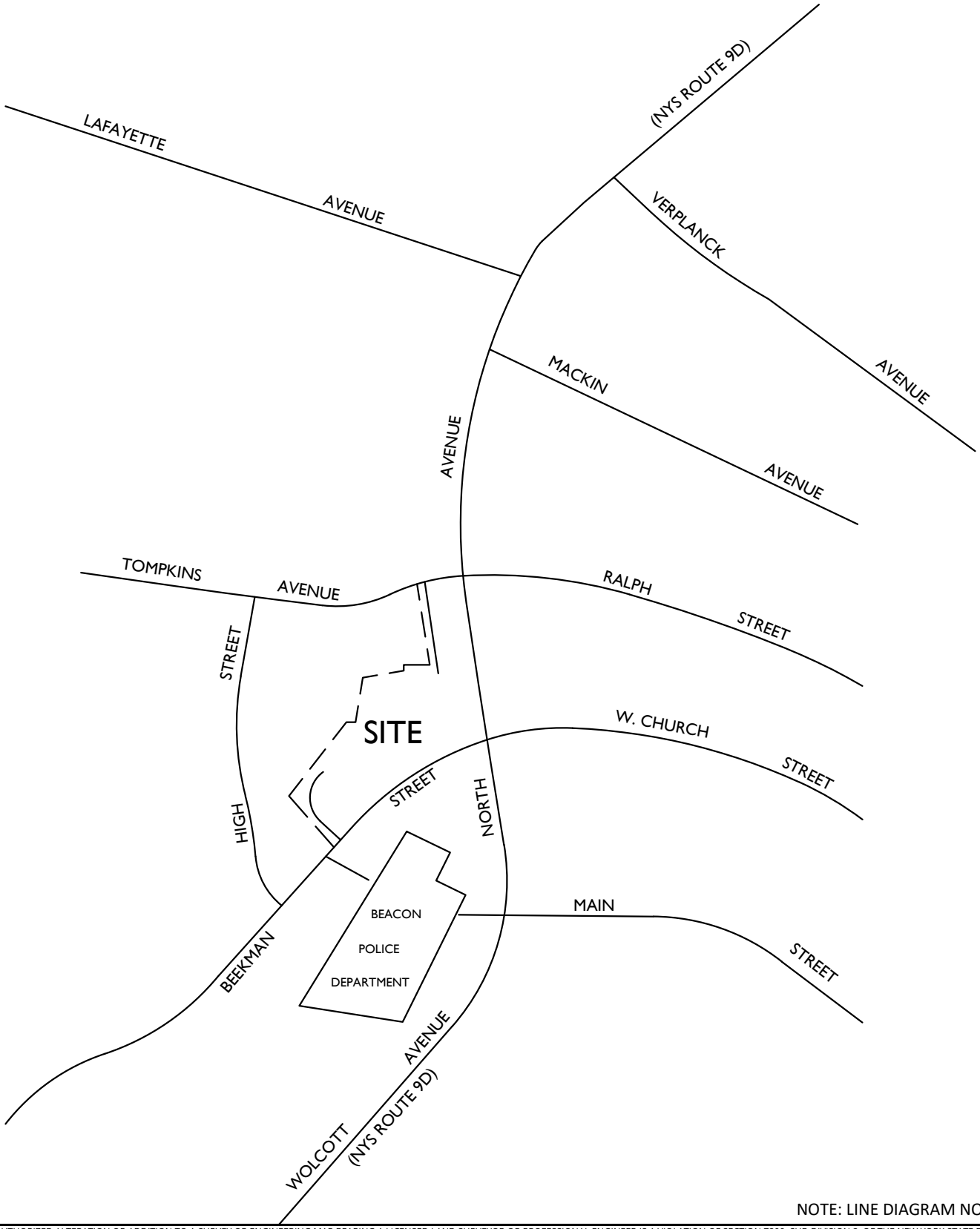
In addition, the parking analysis indicates that the Project will provide sufficient parking to accommodate the residential and commercial uses on-site based on the summarized shared parking analysis, the proximity to the train station and the provision of bicycle parking on the site. Based on this analysis 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 88 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.

Colliers Engineering & Design

Traffic & Parking Study

Appendix A | Traffic Figures



NOTE: LINE DIAGRAM NOT TO SCALE

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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45 BEEKMAN STREET
& HIGH STREET

CITY OF BEACON
DUTCHESS COUNTY
NEW YORK

811 PROTECT YOURSELF
ALL STATES REQUIRE NOTIFICATION OF EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN ANY STATE
STATE REQUIRED FILE NUMBER
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

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TRAFFIC IMPACT STUDY

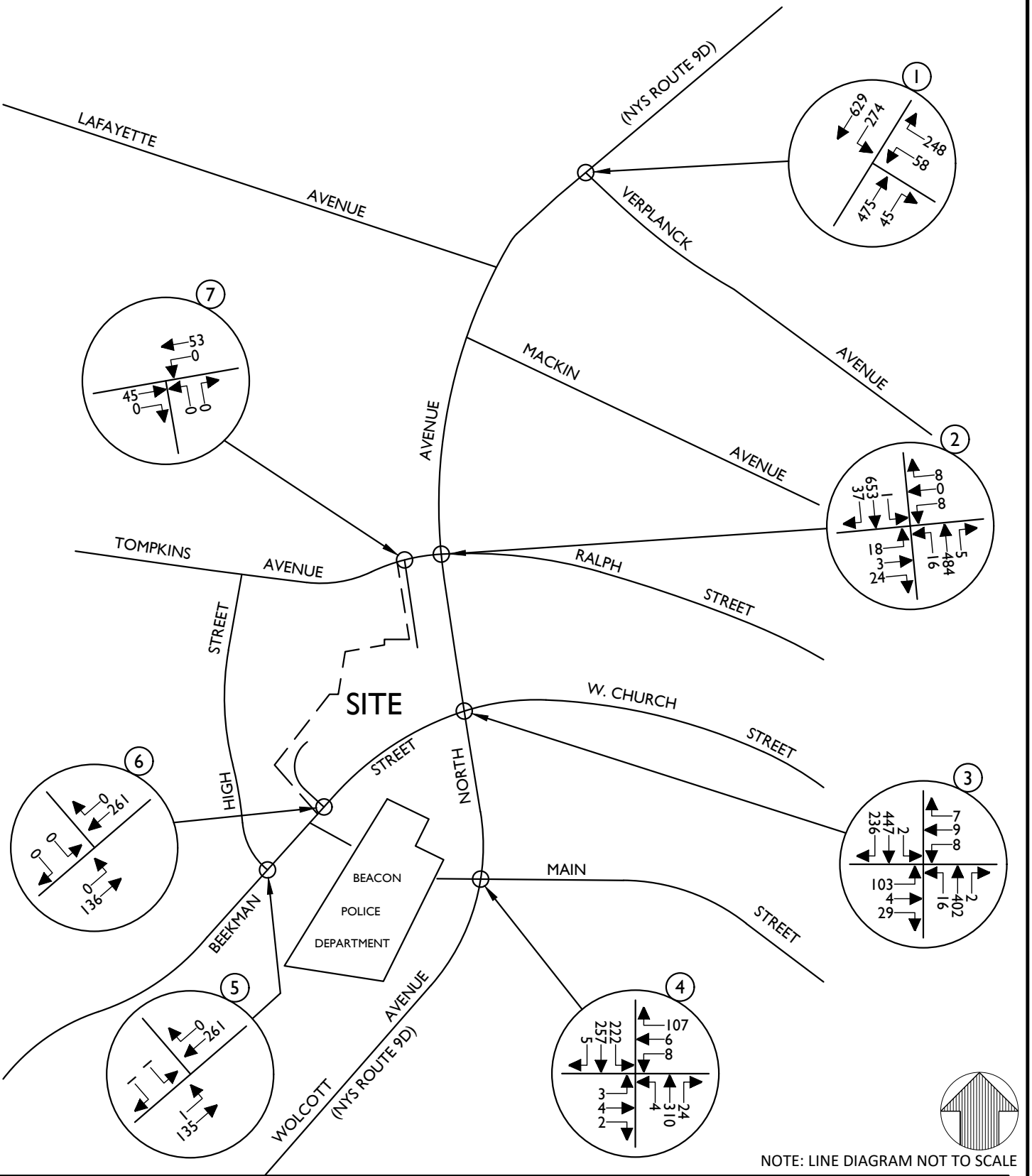
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PROJECT NUMBER:	DRAWING NAME:
23010468A	240612RH_FIGURE

SHEET TITLE: SITE LOCATION MAP
FIELD BOOK: XX PAGE:XX

SHEET NUMBER: 1

0468A\Reports\Traffic\Figures\240612RH_FIGURE.dwg\1 By: RHILARIO



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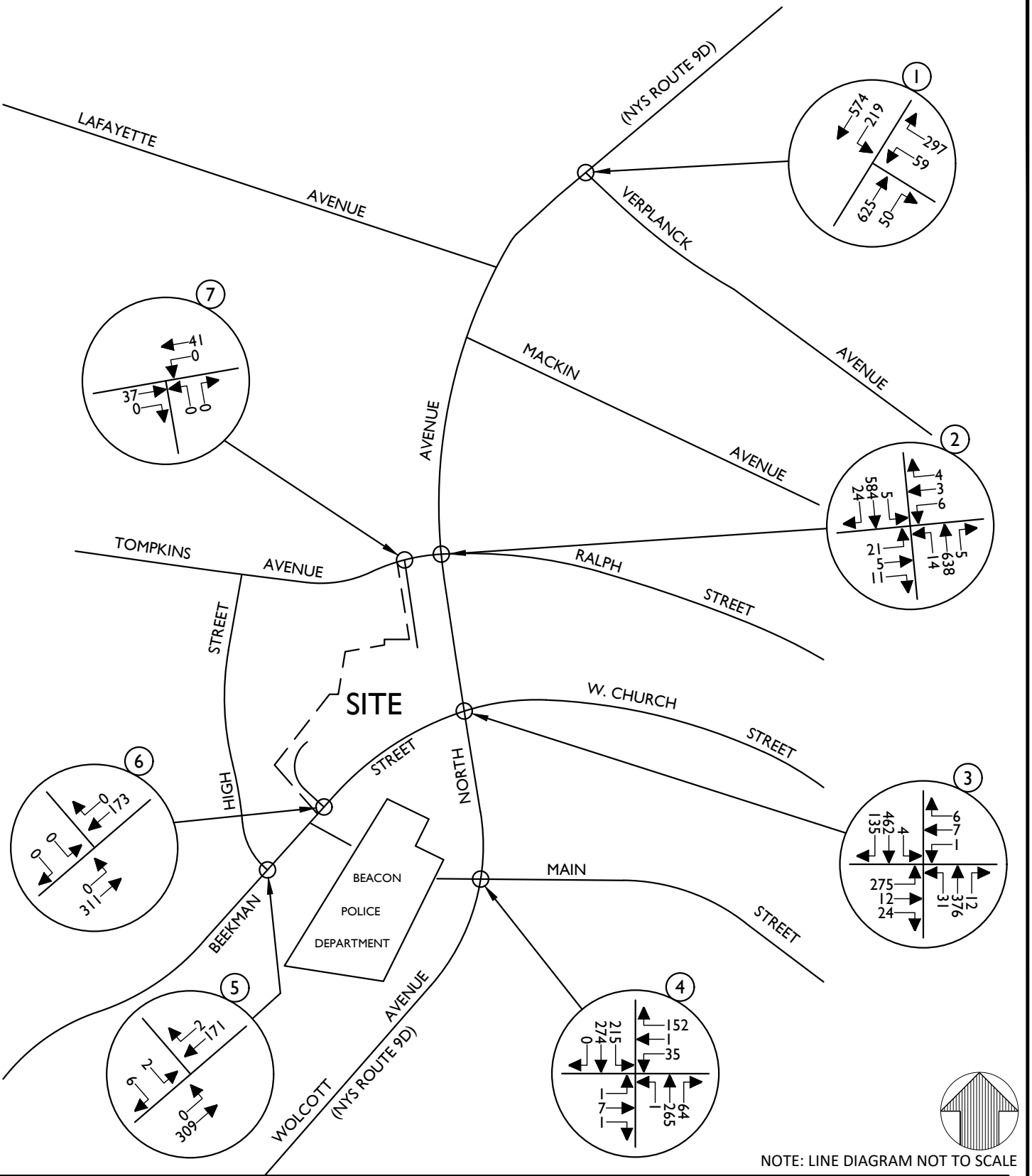
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SHEET TITLE: FIELD BOOK: XX PAGE:XX

2023 EXISTING TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER: 2

0468A\Reports\Traffic\Figures\240612RH_FIGURE.dwg\2 By: RHILARIO



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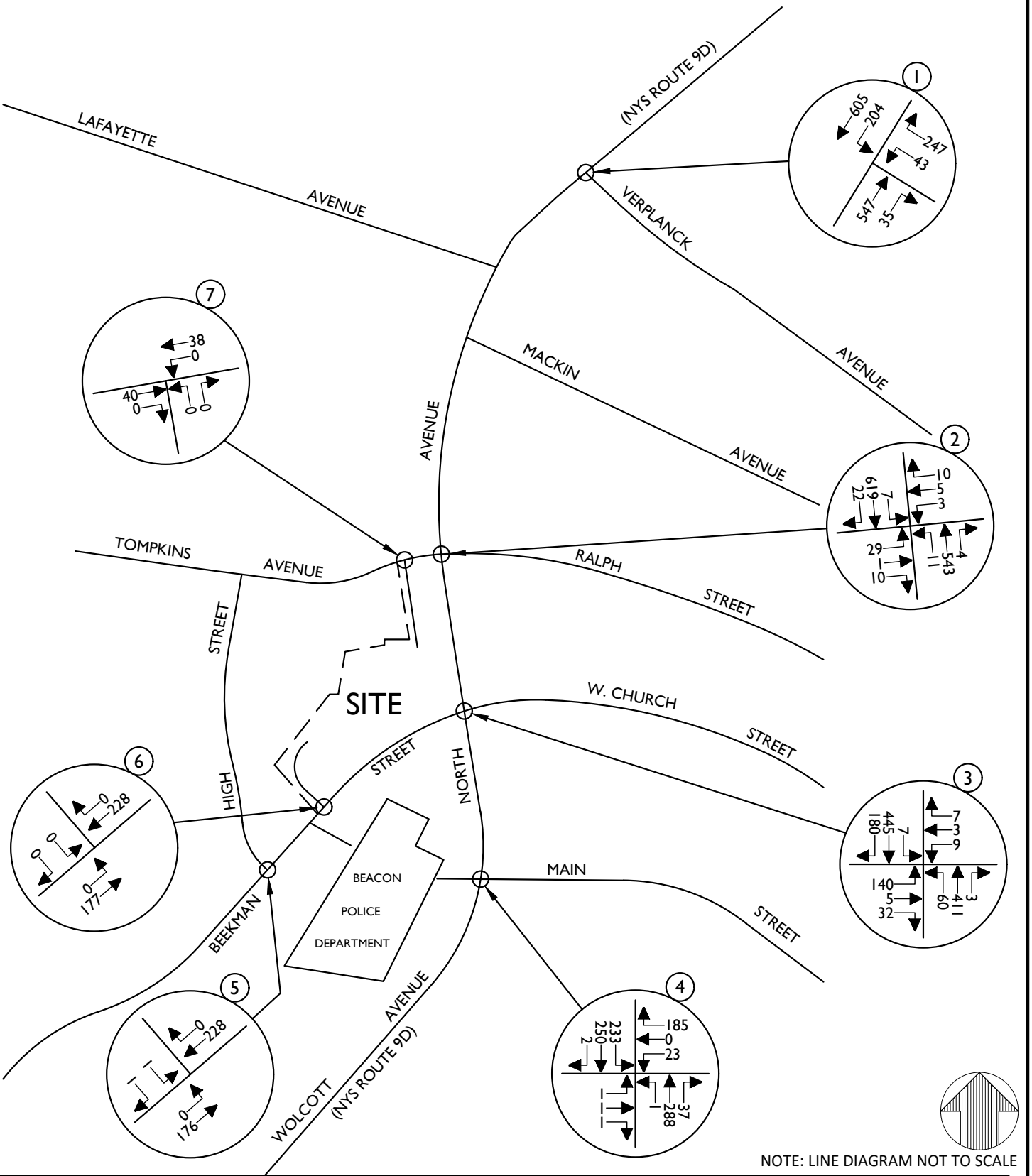
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SHEET TITLE: FIELD BOOK: XX PAGE:XX

2023 EXISTING TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER: 3

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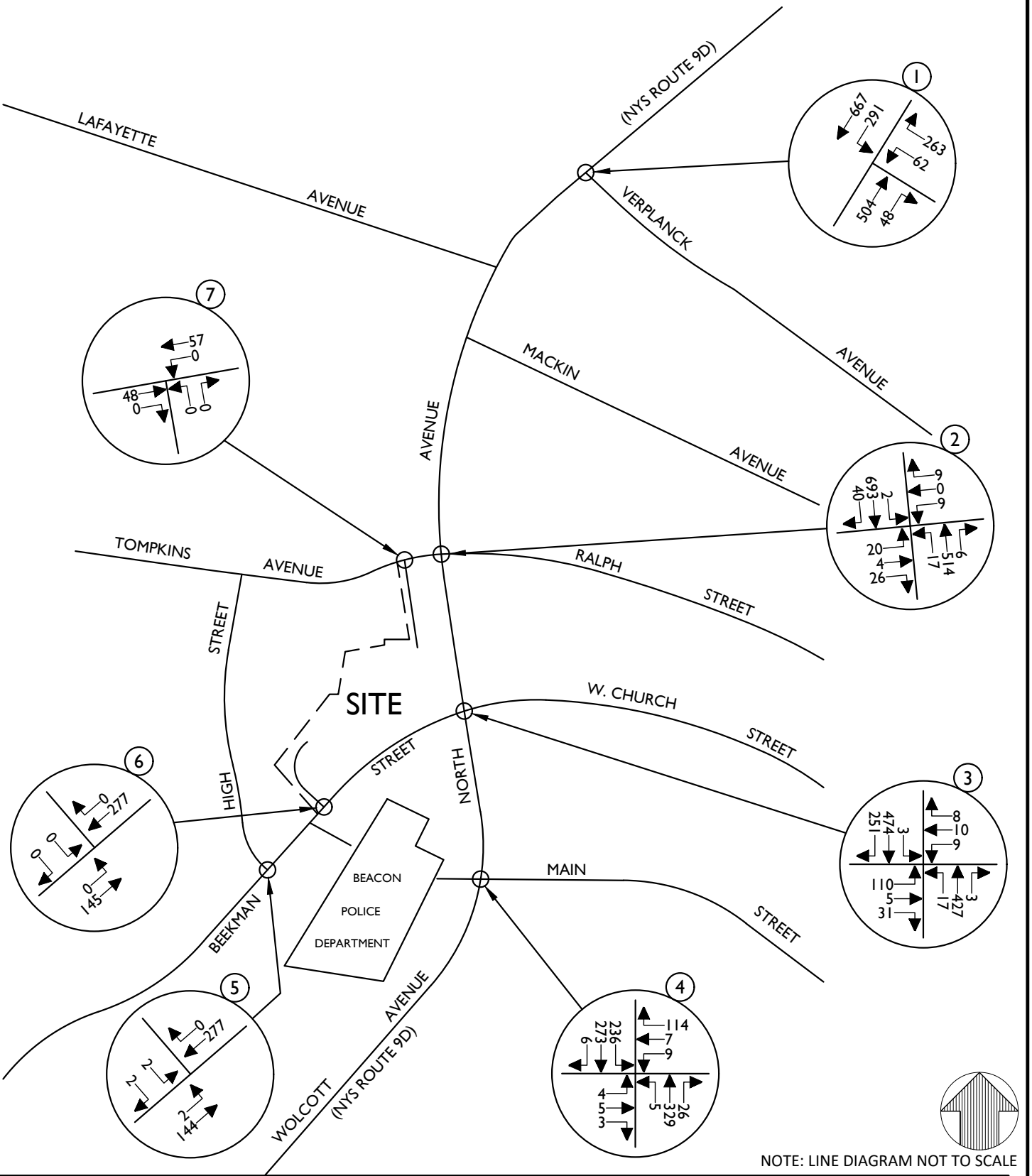
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SHEET TITLE: FIELD BOOK: XX PAGE:XX

2023 EXISTING TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR

SHEET NUMBER: 4

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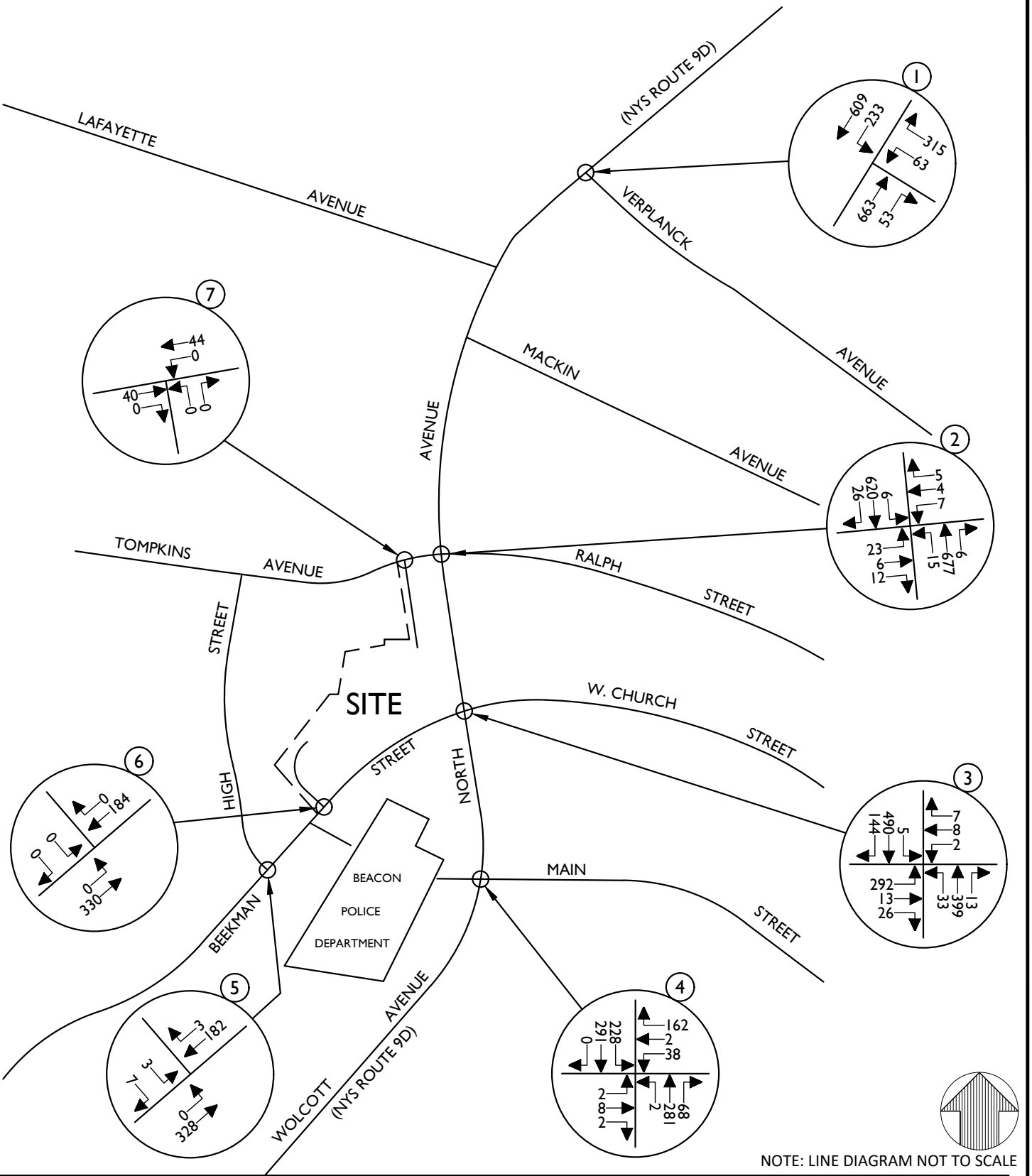
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SHEET TITLE: FIELD BOOK: XX PAGE:XX

2026 PROJECTED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER: 5

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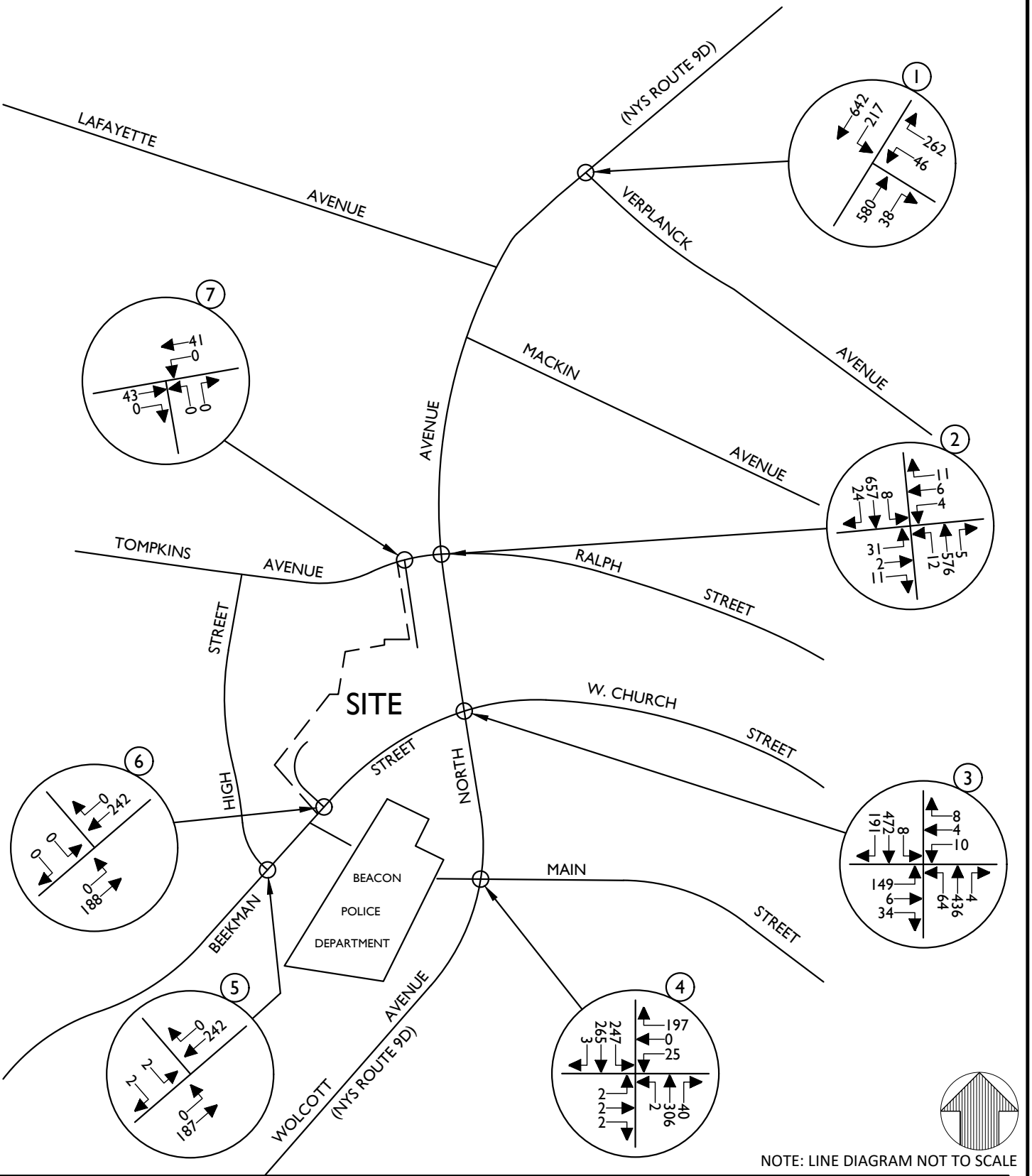
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SHEET TITLE: FIELD BOOK: XX PAGE:XX

2026 PROJECTED TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER: 6

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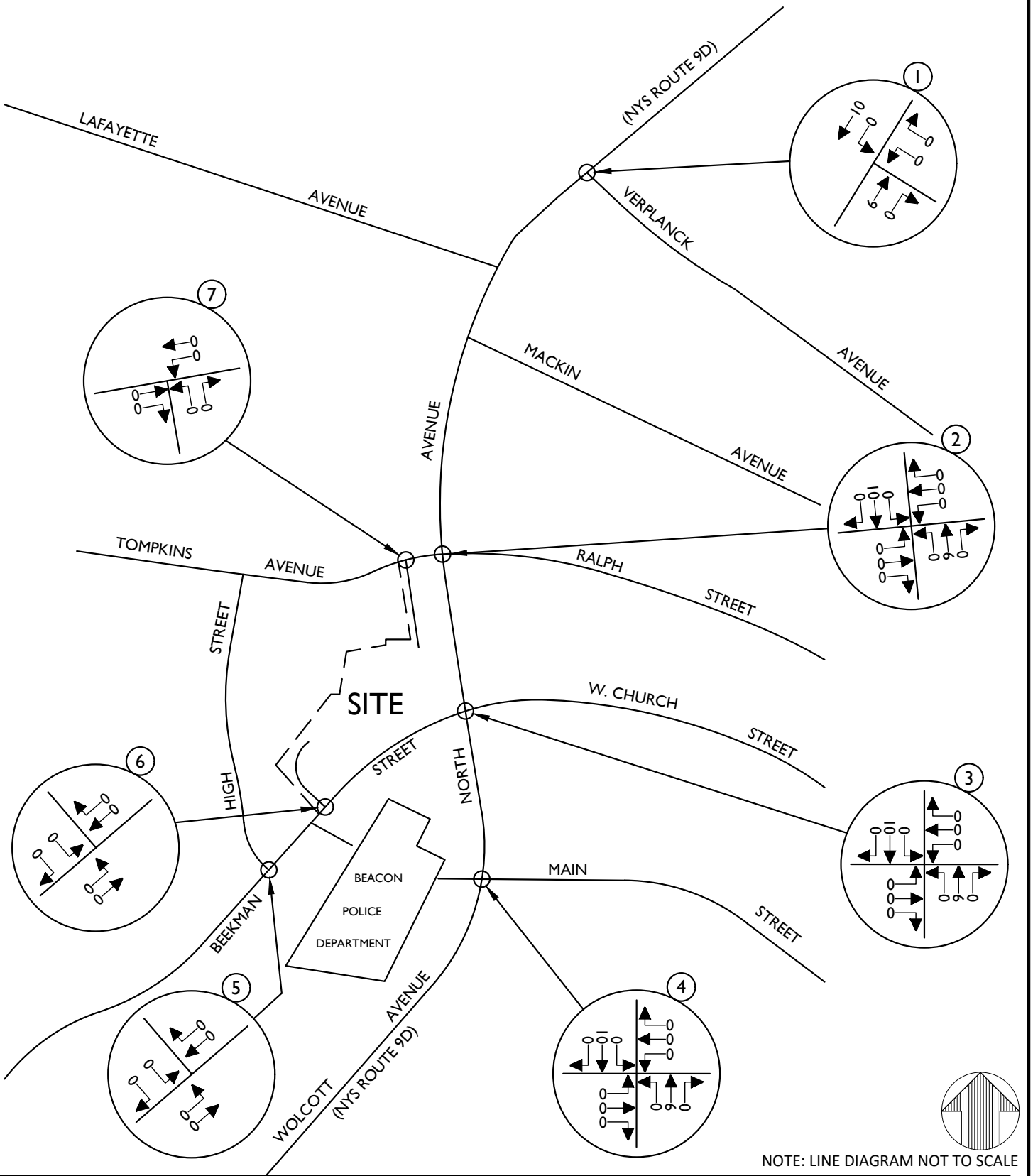
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SHEET TITLE: FIELD BOOK: XX PAGE:XX

2026 PROJECTED TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR

SHEET NUMBER: 7

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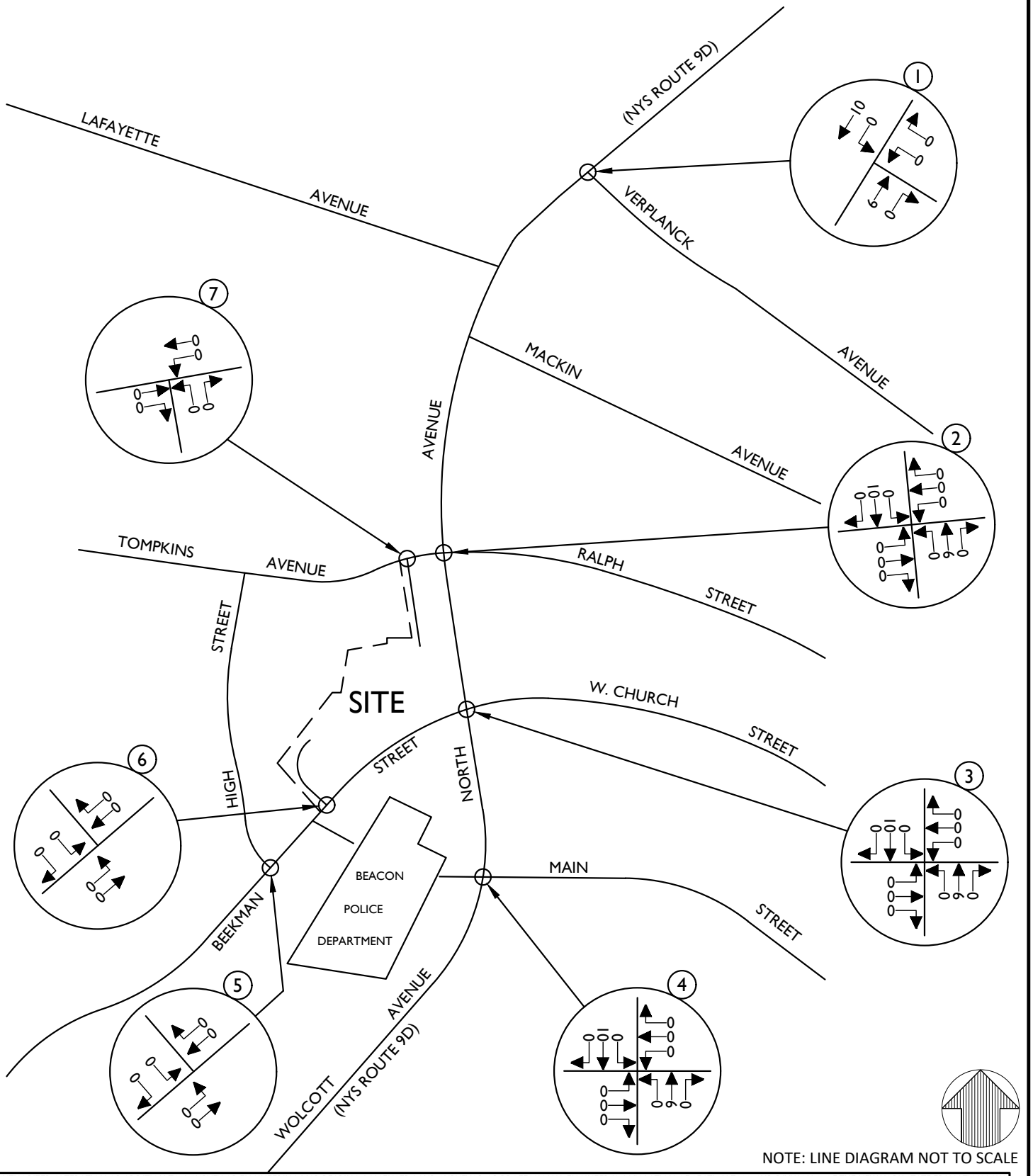
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PROJECT NUMBER:	DRAWING NAME:
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SHEET TITLE: FIELD BOOK: XX PAGE:XX
MIRBEAU BEACON
OTHER DEVELOPMENT
WEEKDAY PEAK AM HOUR

SHEET NUMBER: 8

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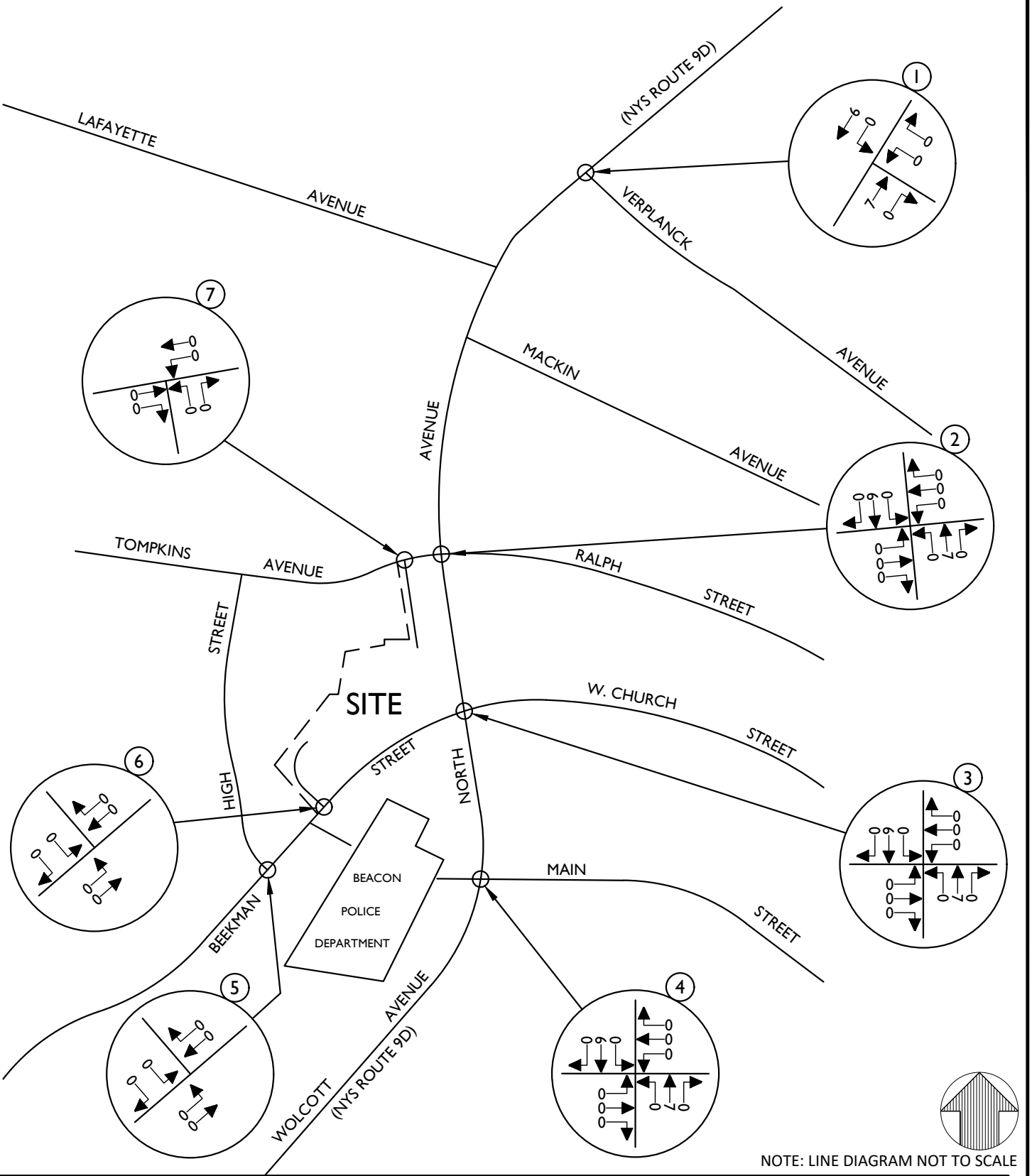
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SHEET TITLE: FIELD BOOK: XX PAGE:XX
MIRBEAU BEACON
OTHER DEVELOPMENT
WEEKDAY PEAK PM HOUR

SHEET NUMBER: 9

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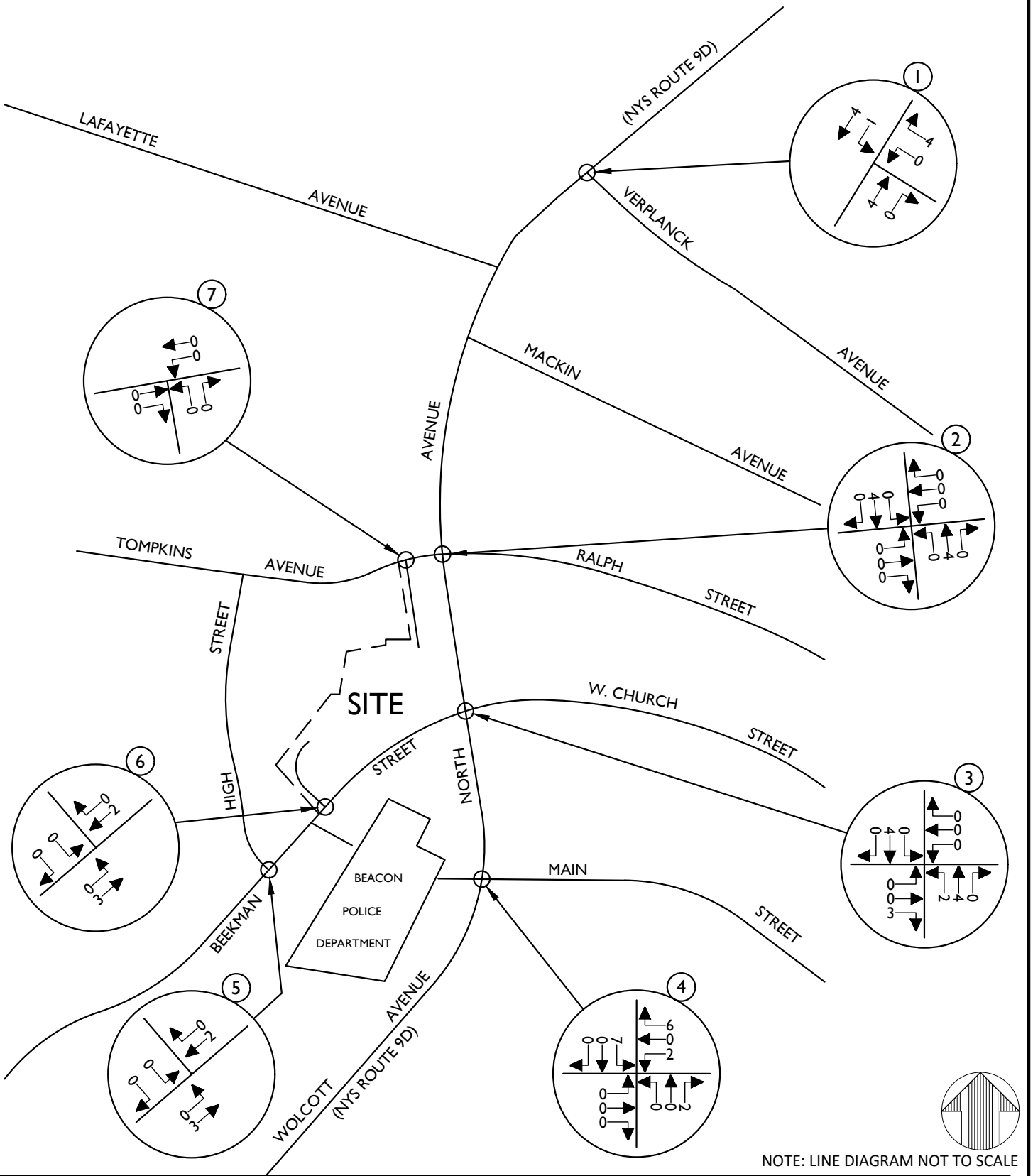
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PROJECT NUMBER:	DRAWING NAME:
23010468A	240612RH_FIGURE

SHEET TITLE: FIELD BOOK: XX PAGE:XX
MIRBEAU BEACON
OTHER DEVELOPMENT
WEEKEND PEAK SAT HOUR

SHEET NUMBER: 10

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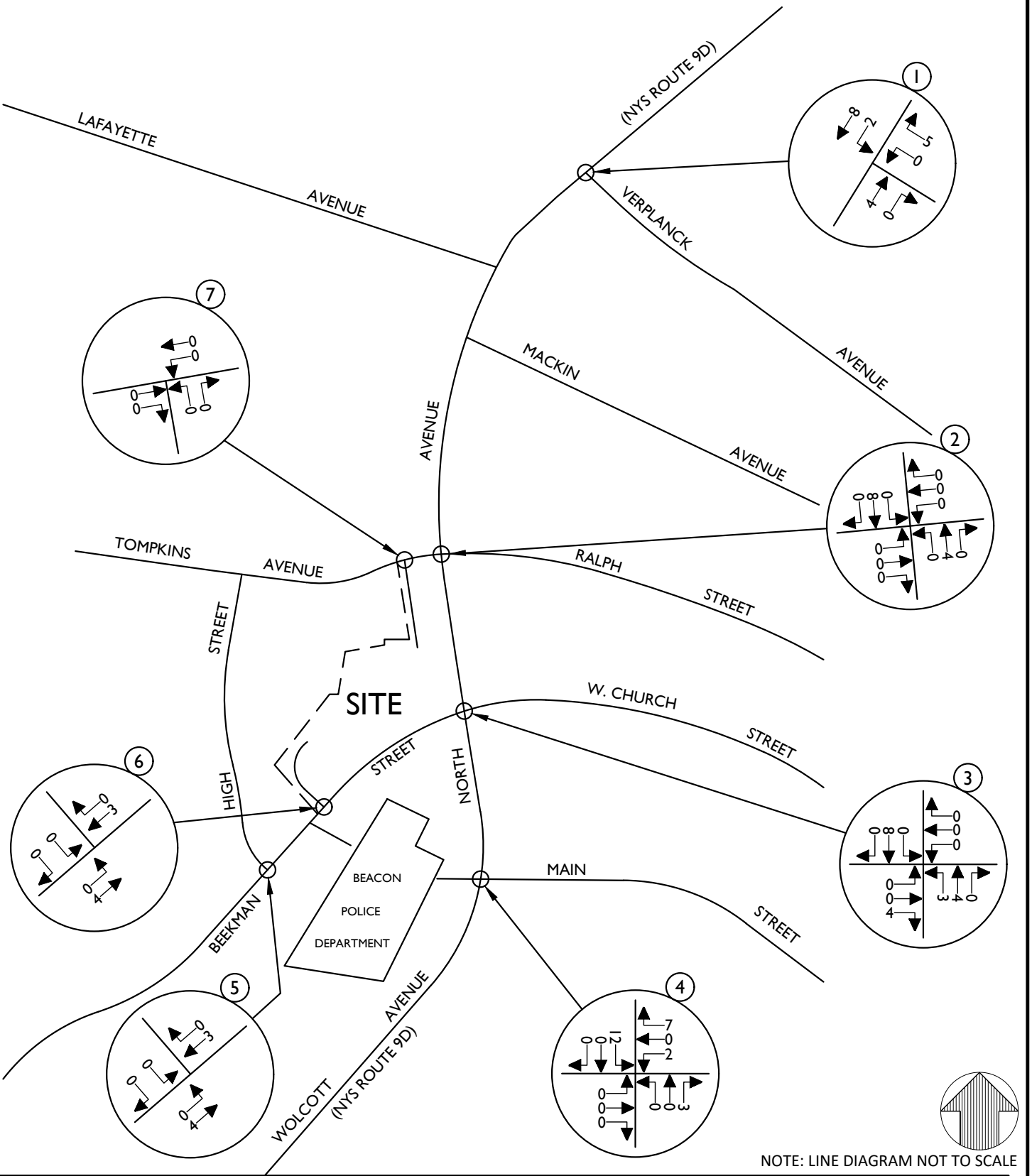
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PROJECT NUMBER:	DRAWING NAME:
23010468A	240612RH_FIGURE

SHEET TITLE: FIELD BOOK: XX PAGE:XX
364 MAIN STREET
OTHER DEVELOPMENT
WEEKDAY PEAK AM HOUR

SHEET NUMBER: 11

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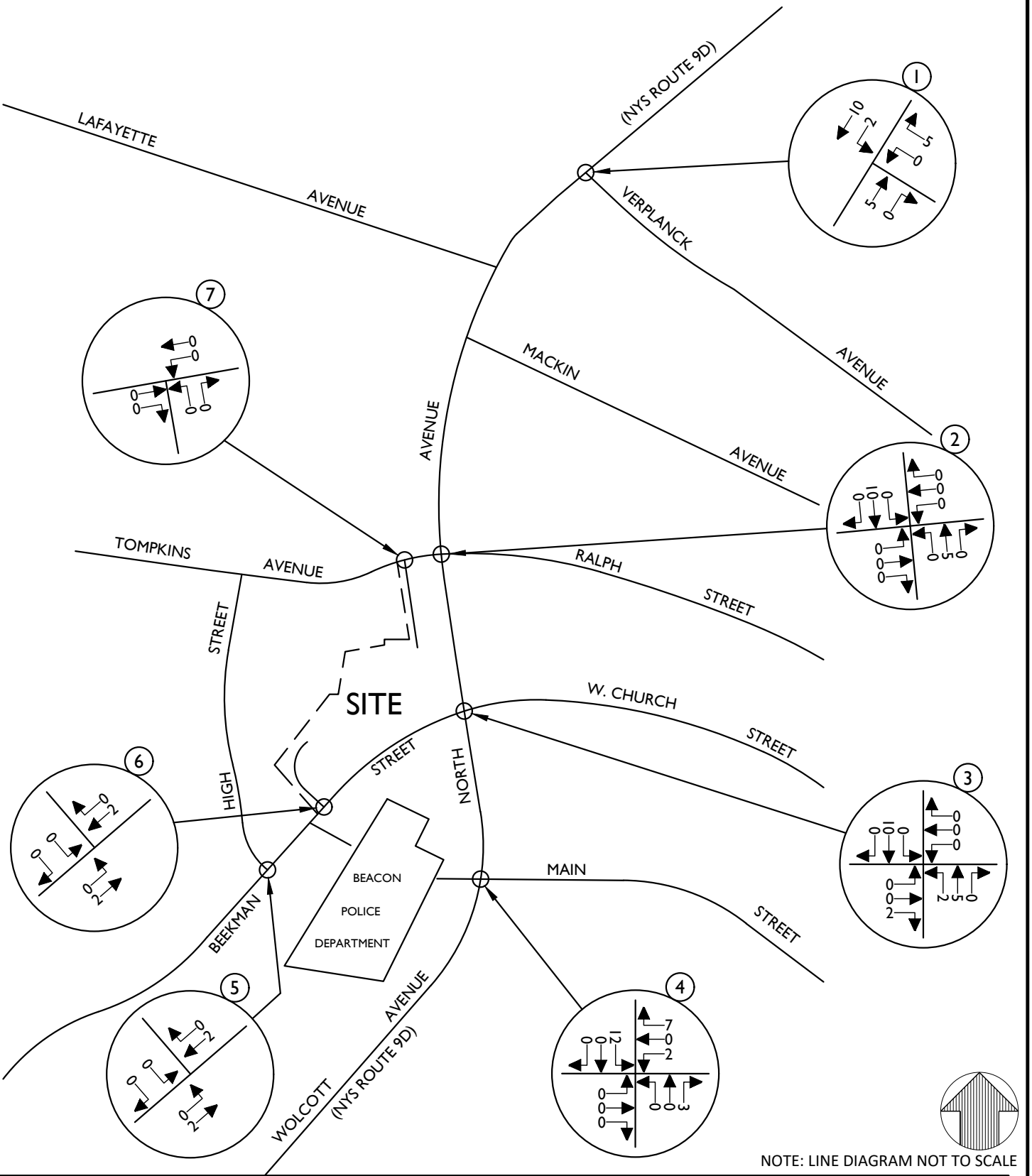
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PROJECT NUMBER:	DRAWING NAME:
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SHEET TITLE: FIELD BOOK: XX PAGE:XX
364 MAIN STREET
OTHER DEVELOPMENT
WEEKDAY PEAK PM HOUR

SHEET NUMBER: 12

0468A\Reports\Traffic\Figures\240612RH_FIGURE.dwg\12 By: RHILARIO



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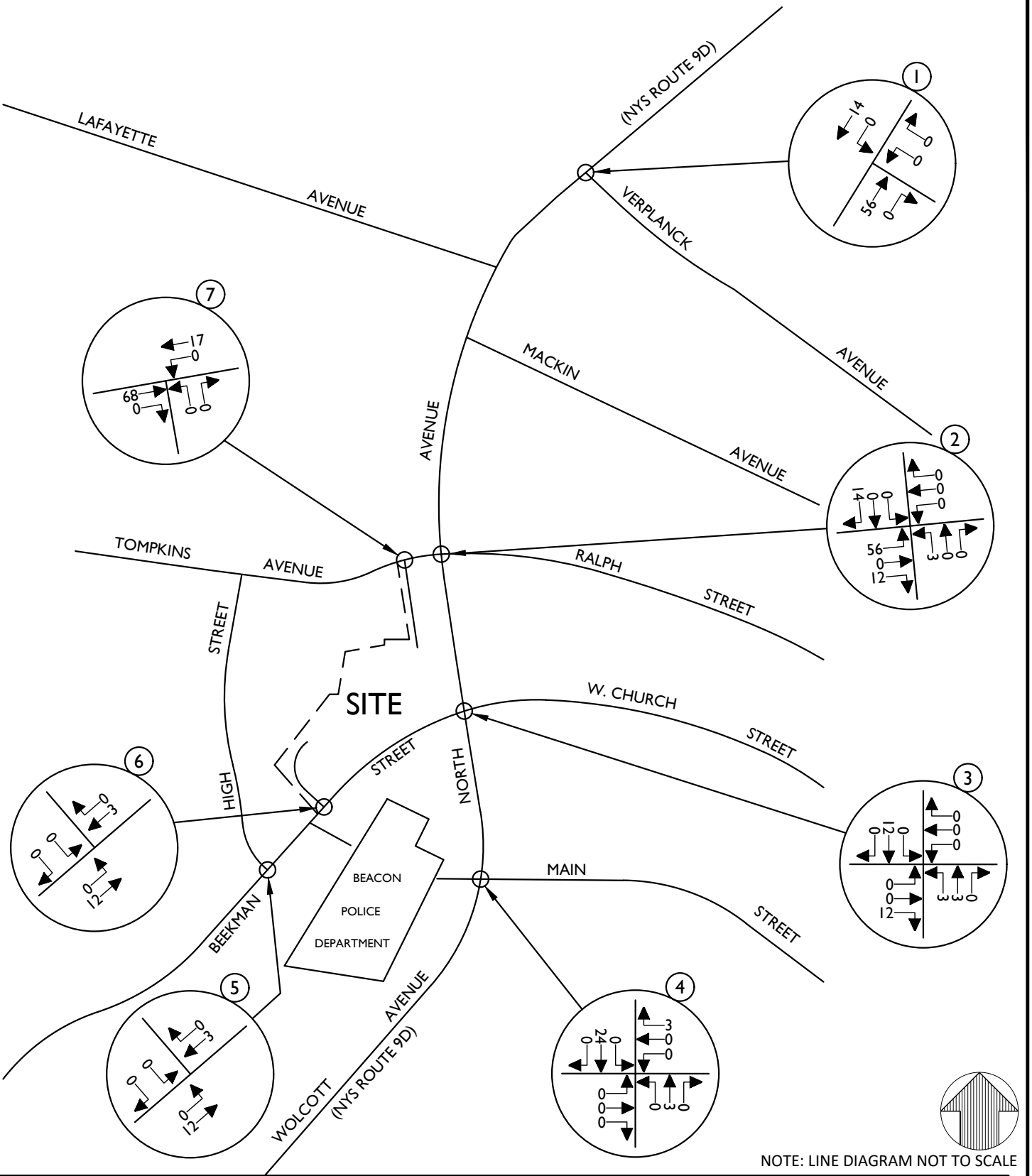
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SHEET TITLE: FIELD BOOK: XX PAGE:XX
364 MAIN STREET
OTHER DEVELOPMENT
WEEKEND PEAK SAT HOUR

SHEET NUMBER: 13

0468A\Reports\Traffic\Figures\240612RH_FIGURE.dwg\13 By: RHILARIO



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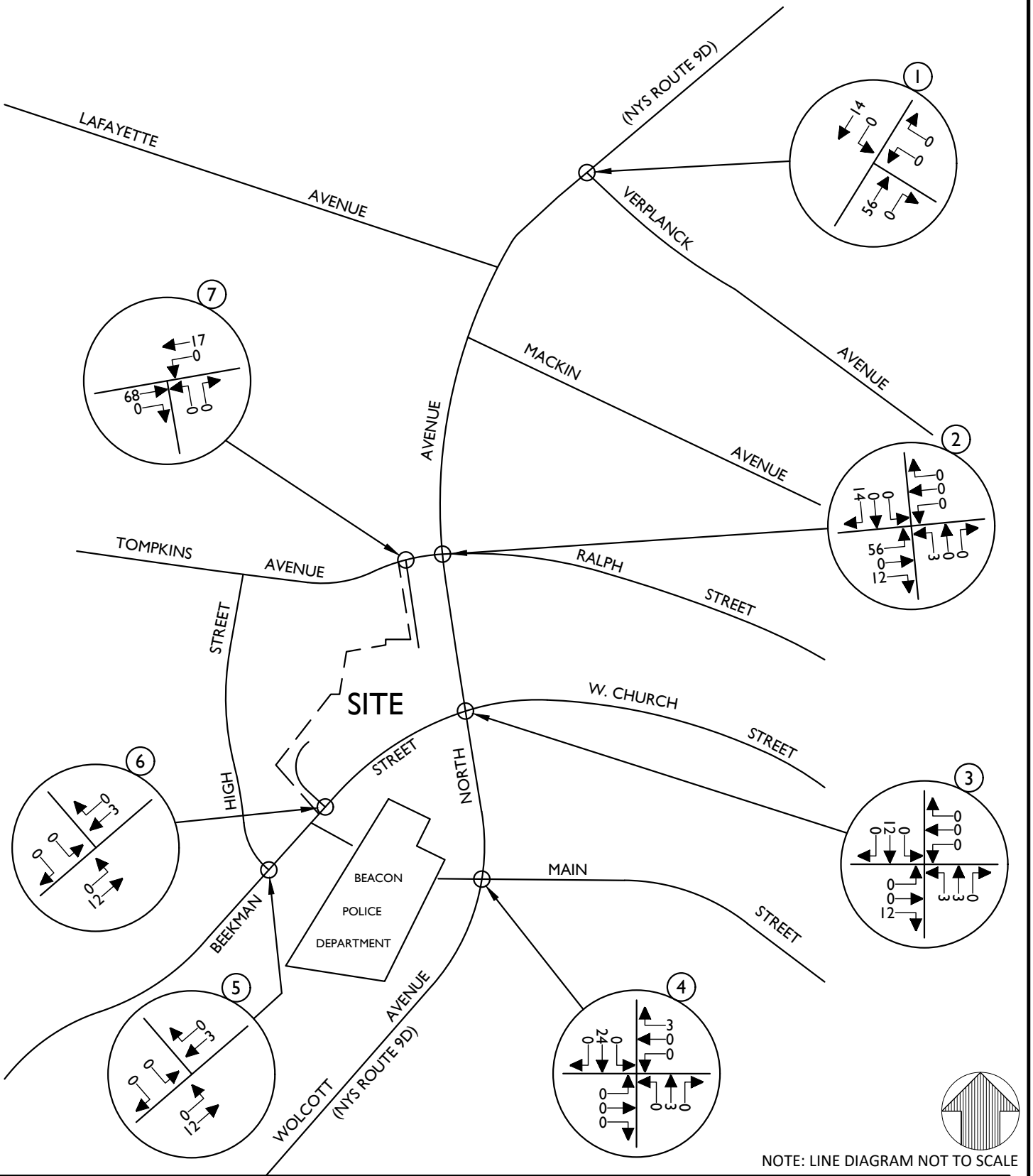
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PROJECT NUMBER:	DRAWING NAME:
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SHEET TITLE: FIELD BOOK: XX PAGE:XX
EDGEWATER
OTHER DEVELOPMENT
WEEKDAY PEAK AM HOUR

SHEET NUMBER: 14

0468A\Reports\Traffic\Figures\240612RH_FIGURE.dwg\14 By: RHILARIO



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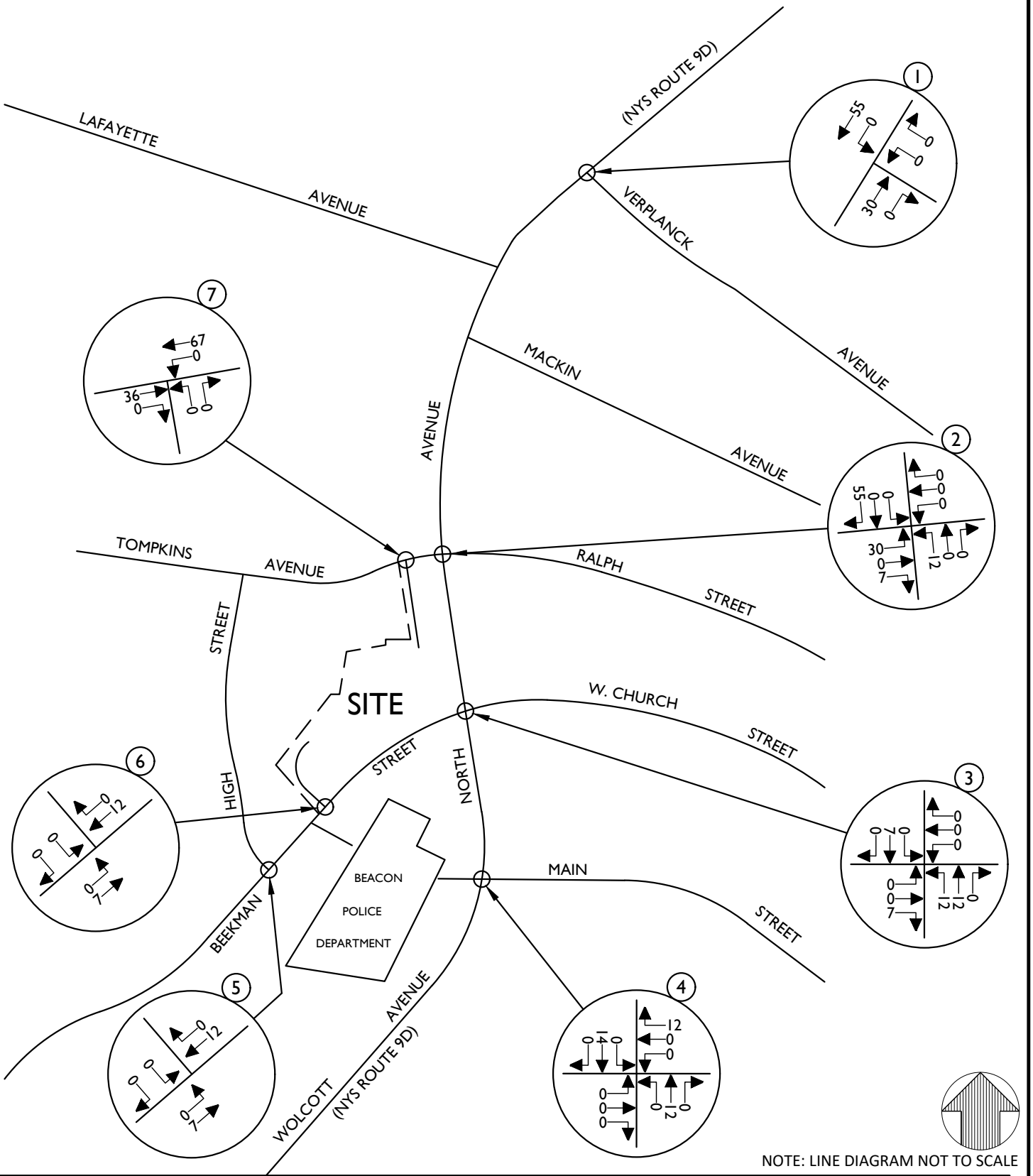
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PROJECT NUMBER:	DRAWING NAME:
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SHEET TITLE: FIELD BOOK: XX PAGE:XX
EDGEWATER
OTHER DEVELOPMENT
WEEKDAY PEAK PM HOUR

SHEET NUMBER: 15

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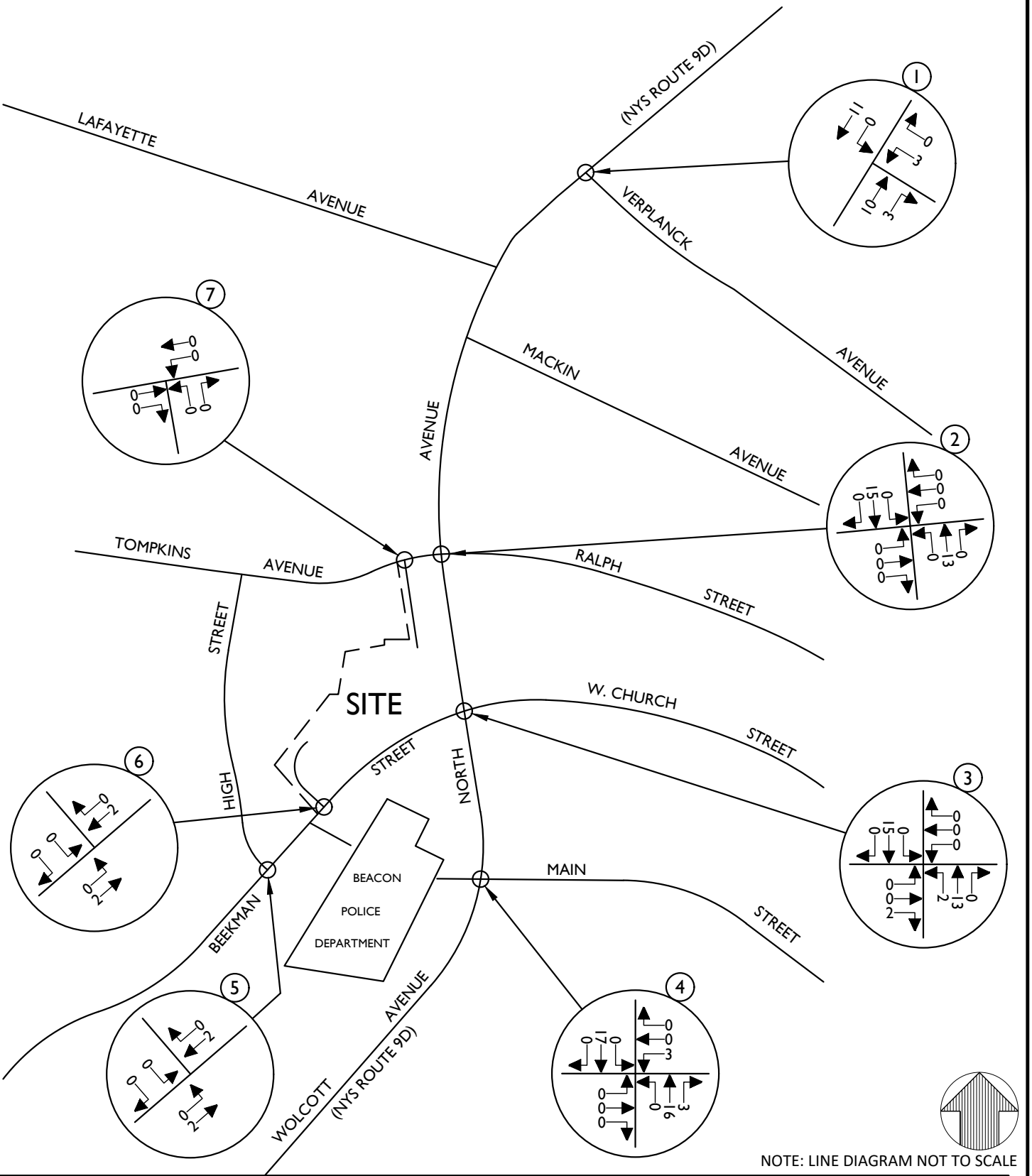
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SHEET TITLE: FIELD BOOK: XX PAGE:XX
EDGEWATER
OTHER DEVELOPMENT
WEEKEND PEAK SAT HOUR

SHEET NUMBER: 16

0468A\Reports\Traffic\Figures\240612RH_FIGURE.dwg\16 By: RHILARIO



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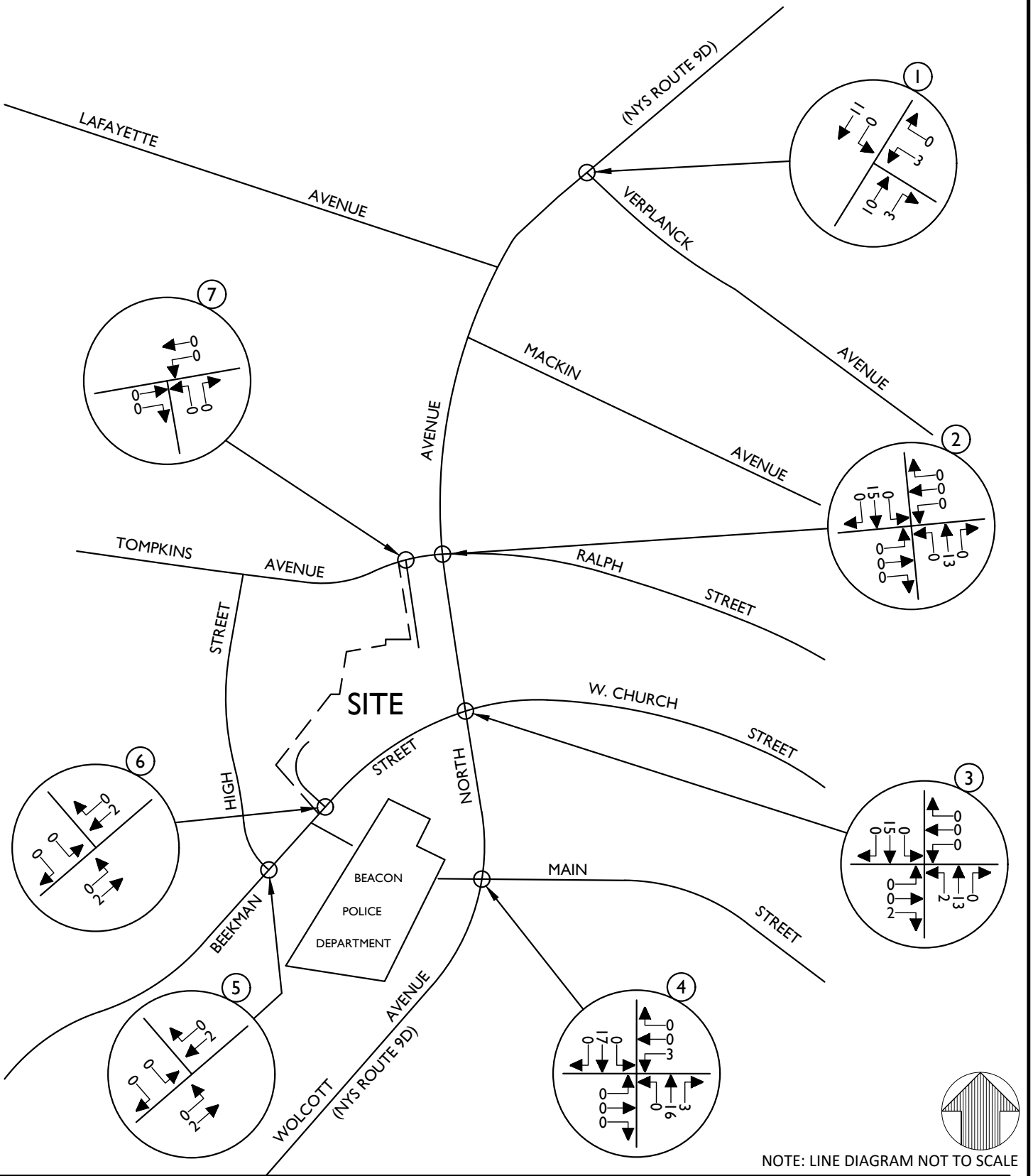
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PROJECT NUMBER:	DRAWING NAME:
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SHEET TITLE: FIELD BOOK: XX PAGE:XX
PROPHECY THEATER
OTHER DEVELOPMENT
WEEKDAY PEAK AM HOUR

SHEET NUMBER: 17

0468A\Reports\Traffic\Figures\240612RH_FIGURE.dwg\17 By: RHILARIO



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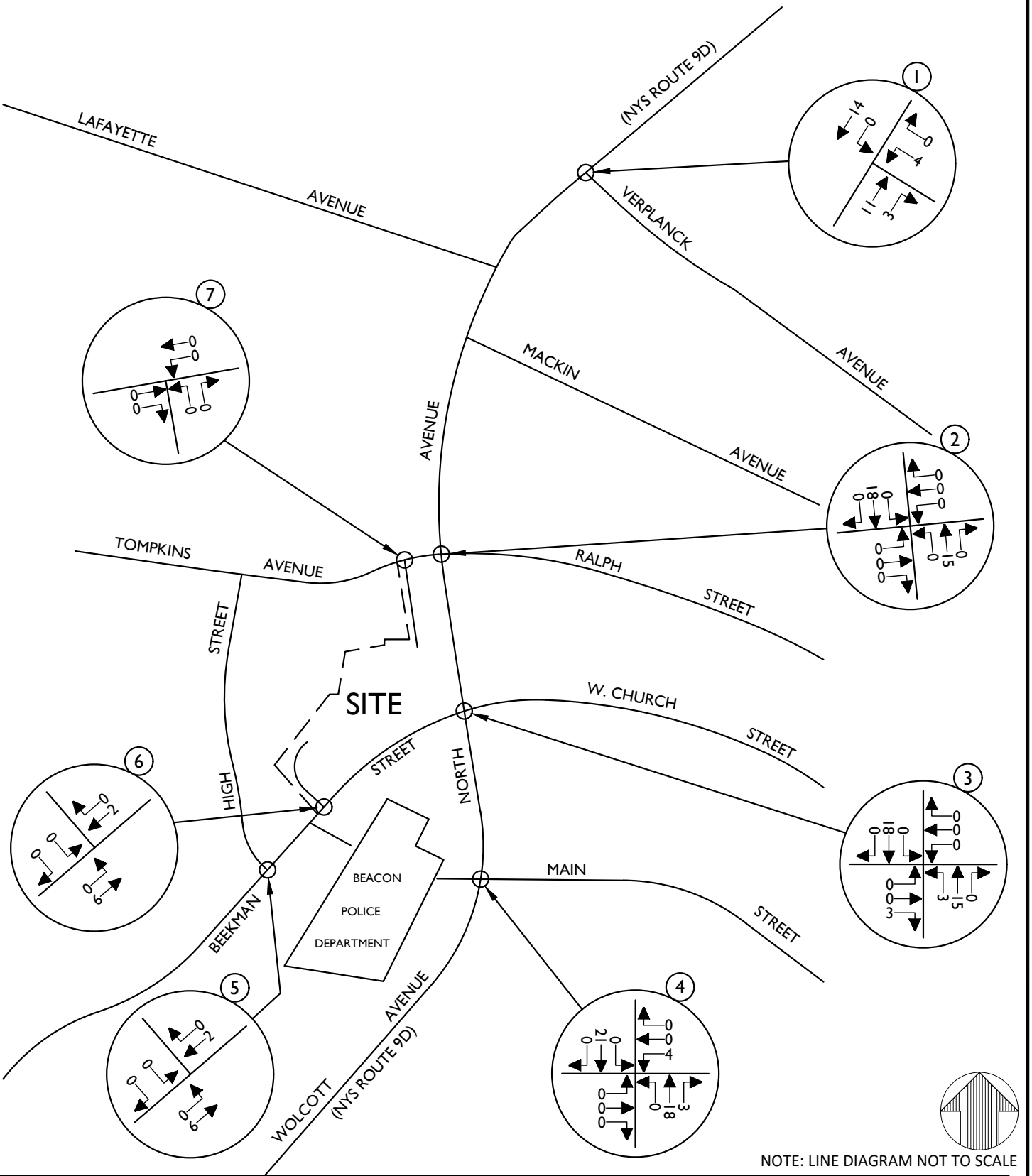
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PROJECT NUMBER:	DRAWING NAME:
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SHEET TITLE: FIELD BOOK: XX PAGE:XX
PROPHECY THEATER
OTHER DEVELOPMENT
WEEKDAY PEAK PM HOUR

SHEET NUMBER: 18

0468A\Reports\Traffic\Figures\240612RH_FIGURE.dwg\18 By: RHILARIO



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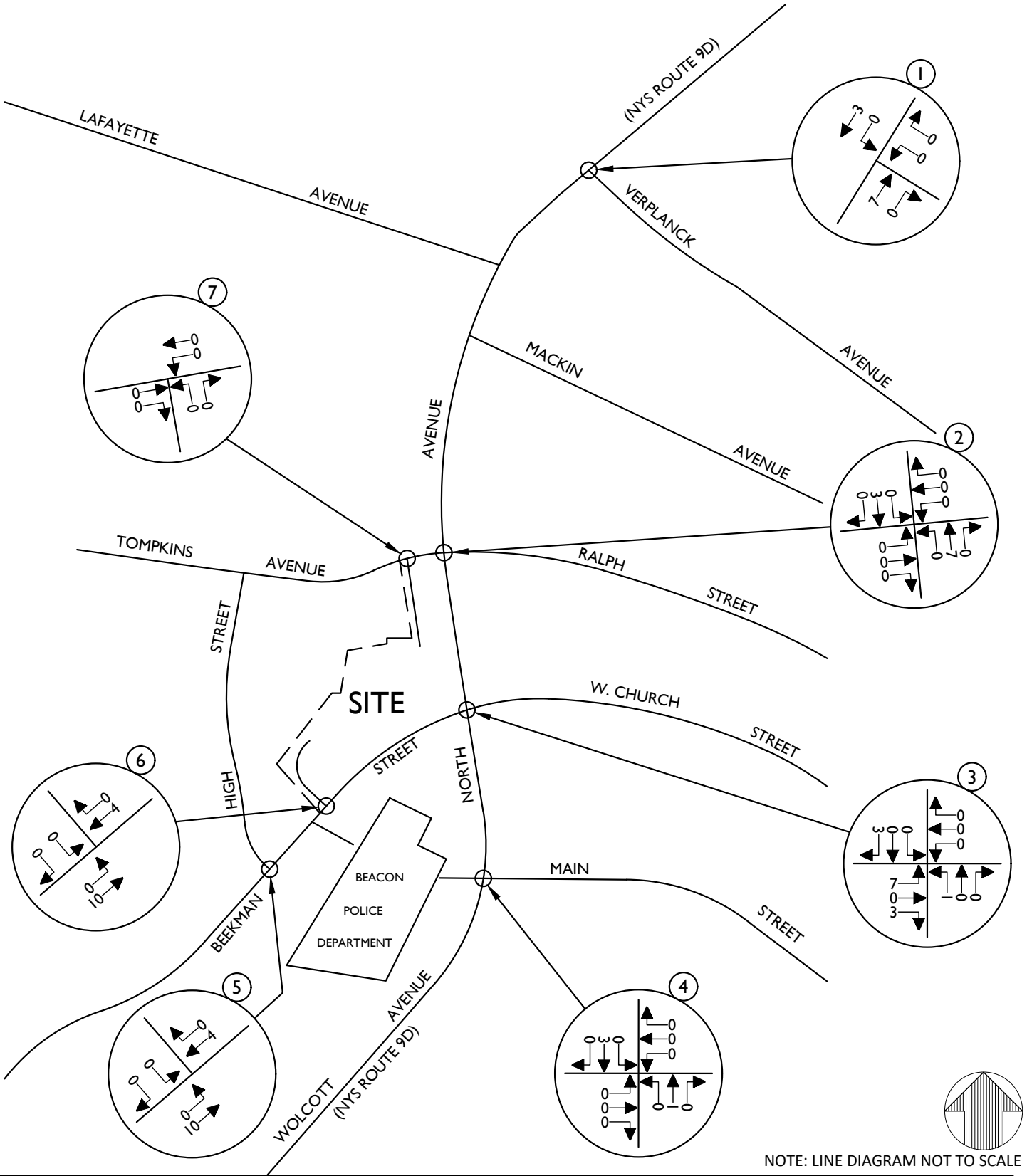
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PROJECT NUMBER:	DRAWING NAME:
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SHEET TITLE: FIELD BOOK: XX PAGE:XX
PROPHECY THEATER
OTHER DEVELOPMENT
WEEKEND PEAK SAT HOUR

SHEET NUMBER: 19

0468A\Reports\Traffic\Figures\240612RH_FIGURE.dwg\19 By: RHILARIO



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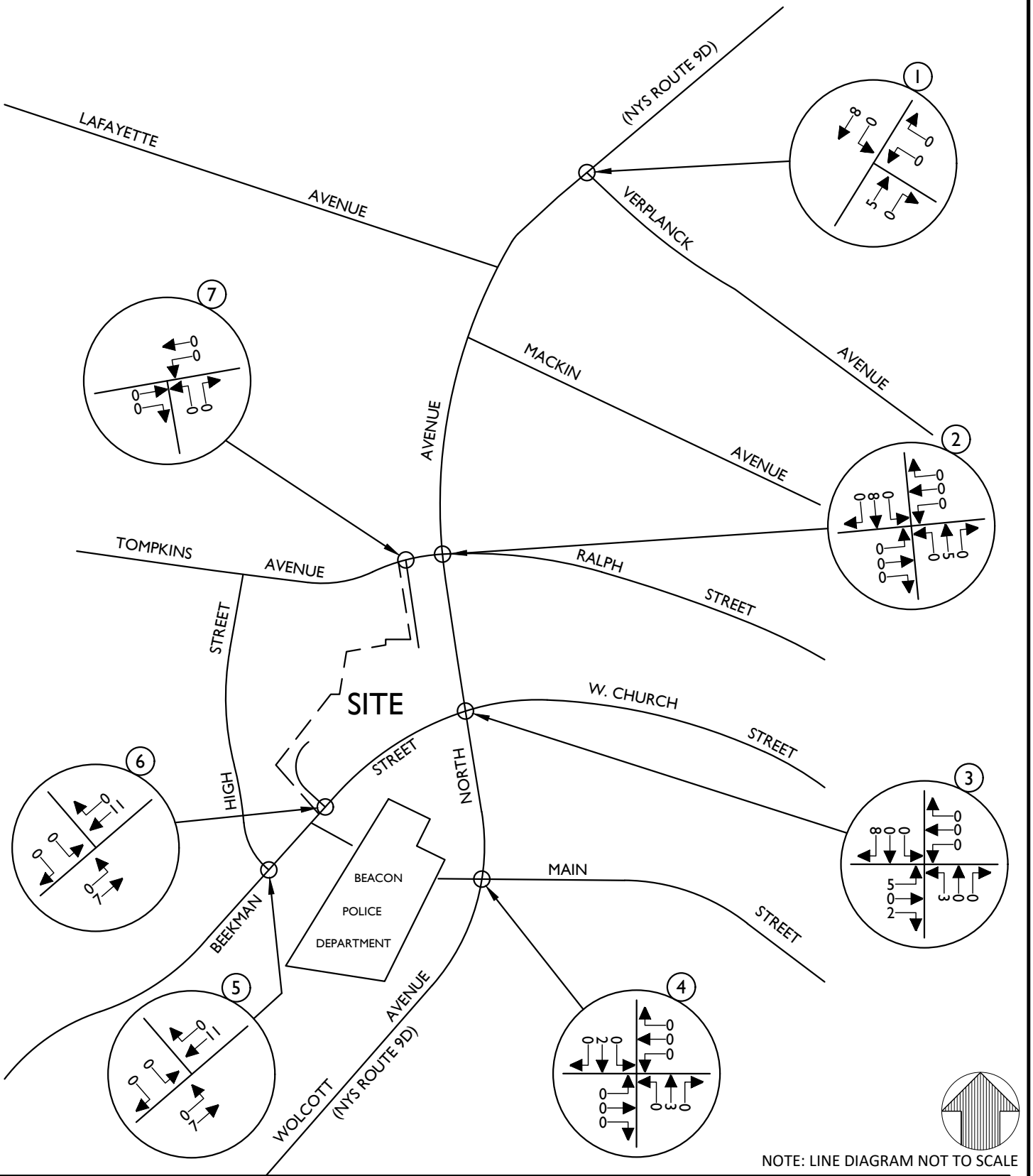
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AS SHOWN	6/12/24	R.H.	R.G.D.

PROJECT NUMBER:	DRAWING NAME:
23010468A	240612RH_FIGURE

SHEET TITLE: FIELD BOOK: XX PAGE:XX
BEACON COMMONS
OTHER DEVELOPMENT
WEEKDAY PEAK AM HOUR

SHEET NUMBER: 20

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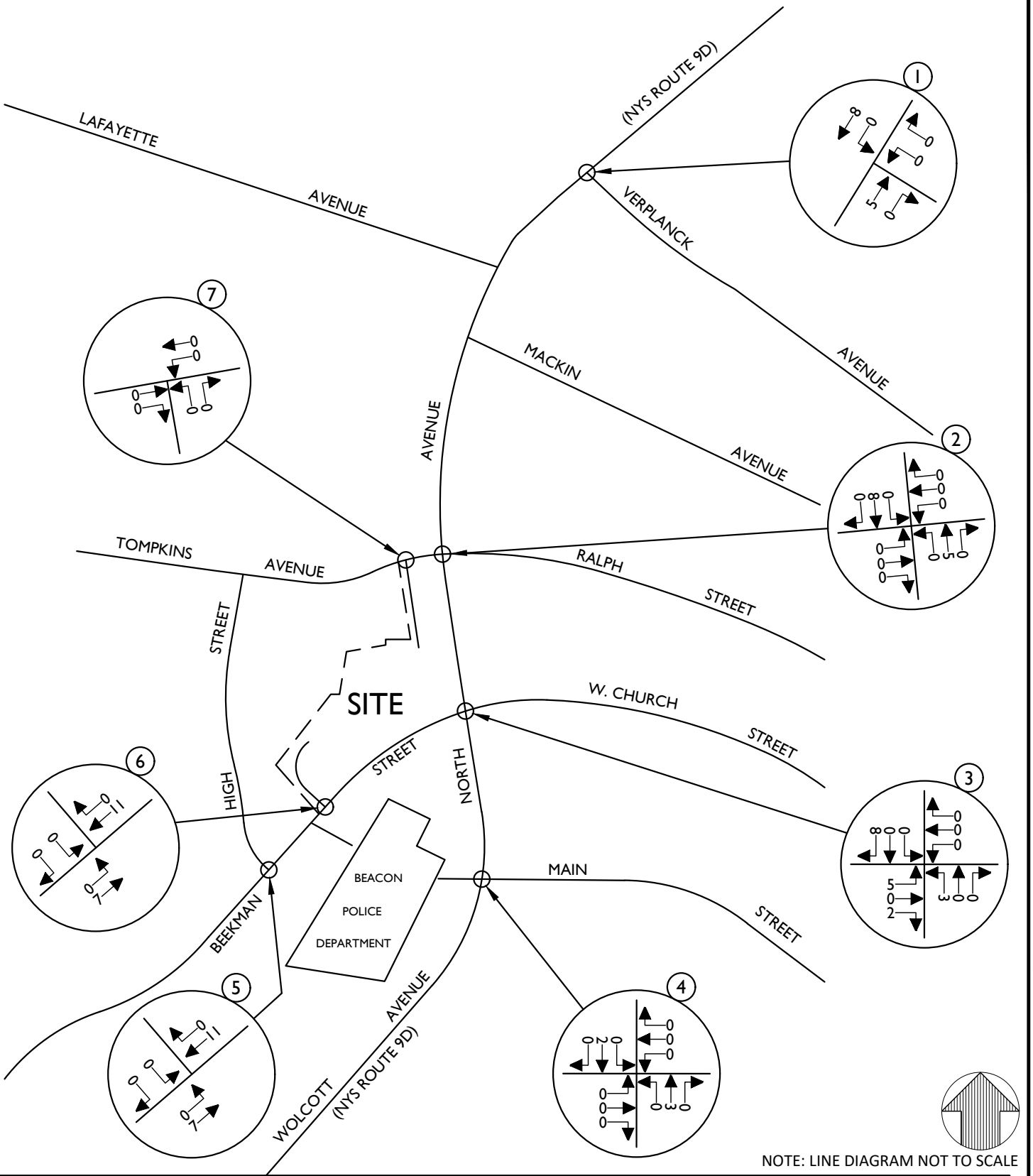
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PROJECT NUMBER:	DRAWING NAME:
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SHEET TITLE: FIELD BOOK: XX PAGE: XX
BEACON COMMONS
OTHER DEVELOPMENT
WEEKDAY PEAK PM HOUR

SHEET NUMBER: 21

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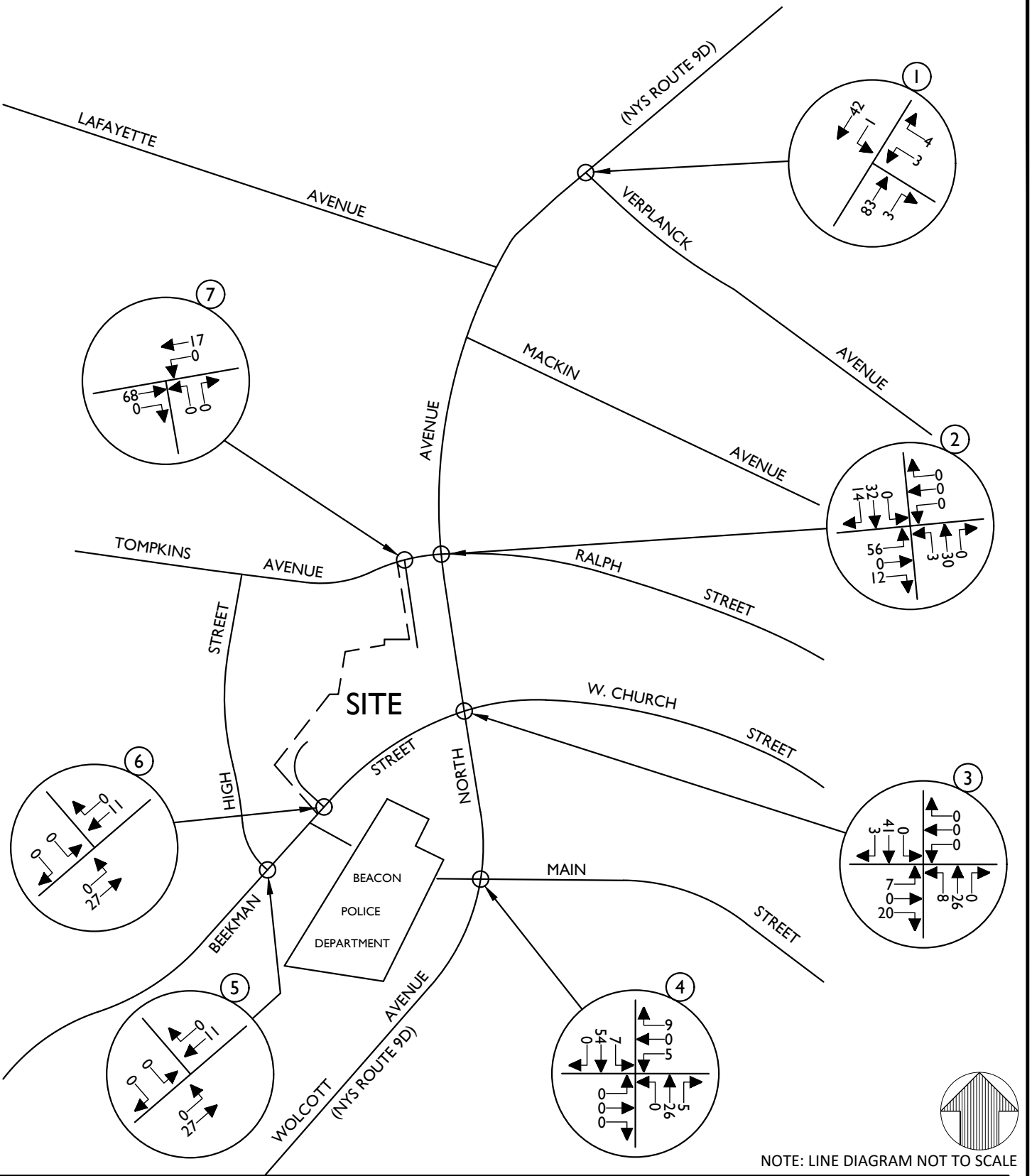
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PROJECT NUMBER:	DRAWING NAME:
23010468A	240612RH_FIGURE

SHEET TITLE: FIELD BOOK: XX PAGE:XX
BEACON COMMONS
OTHER DEVELOPMENT
WEEKEND PEAK SAT HOUR

SHEET NUMBER: 22

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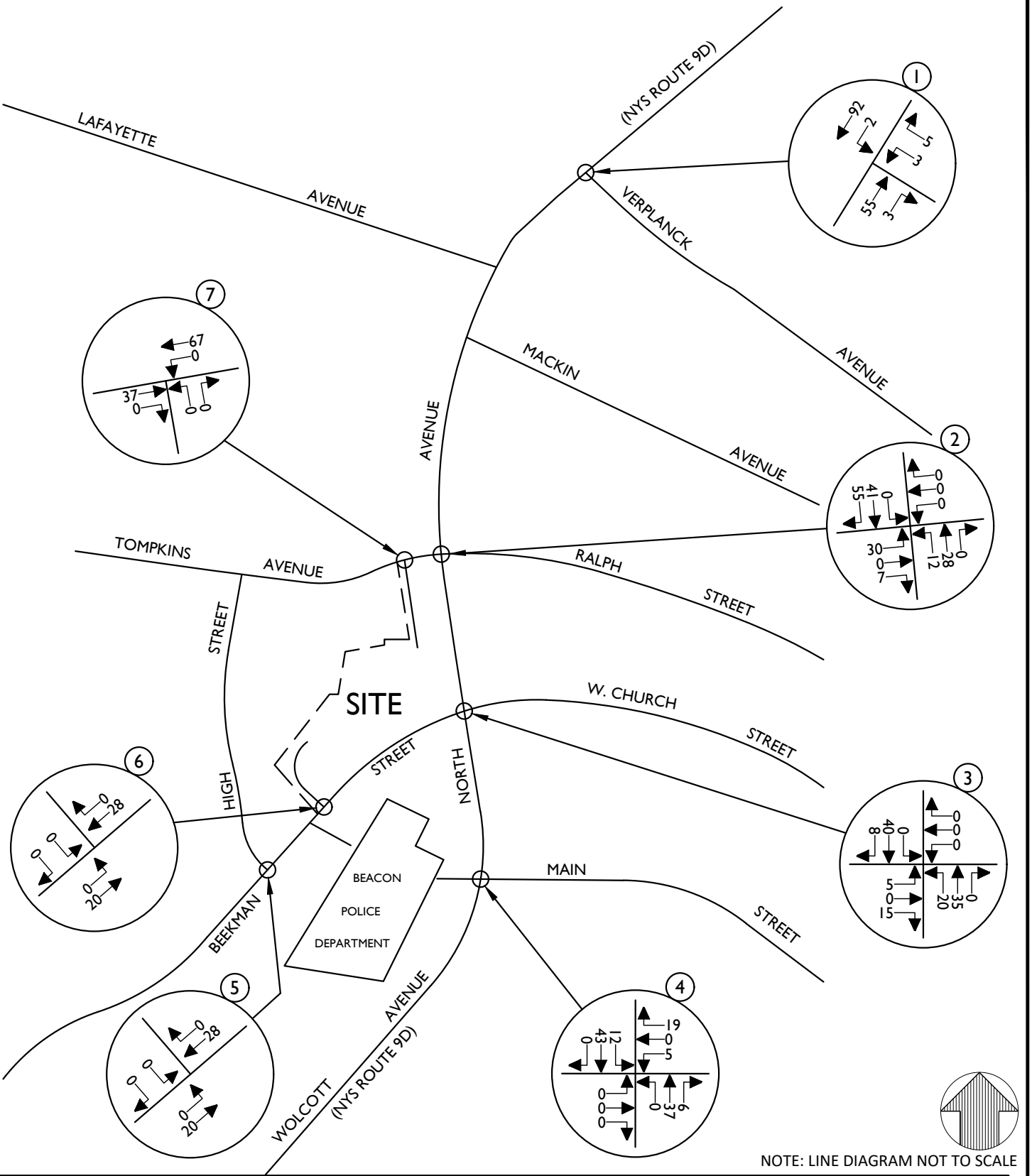
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SHEET TITLE: FIELD BOOK: XX PAGE: XX
TOTAL OTHER DEVELOPMENT
TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER: 23

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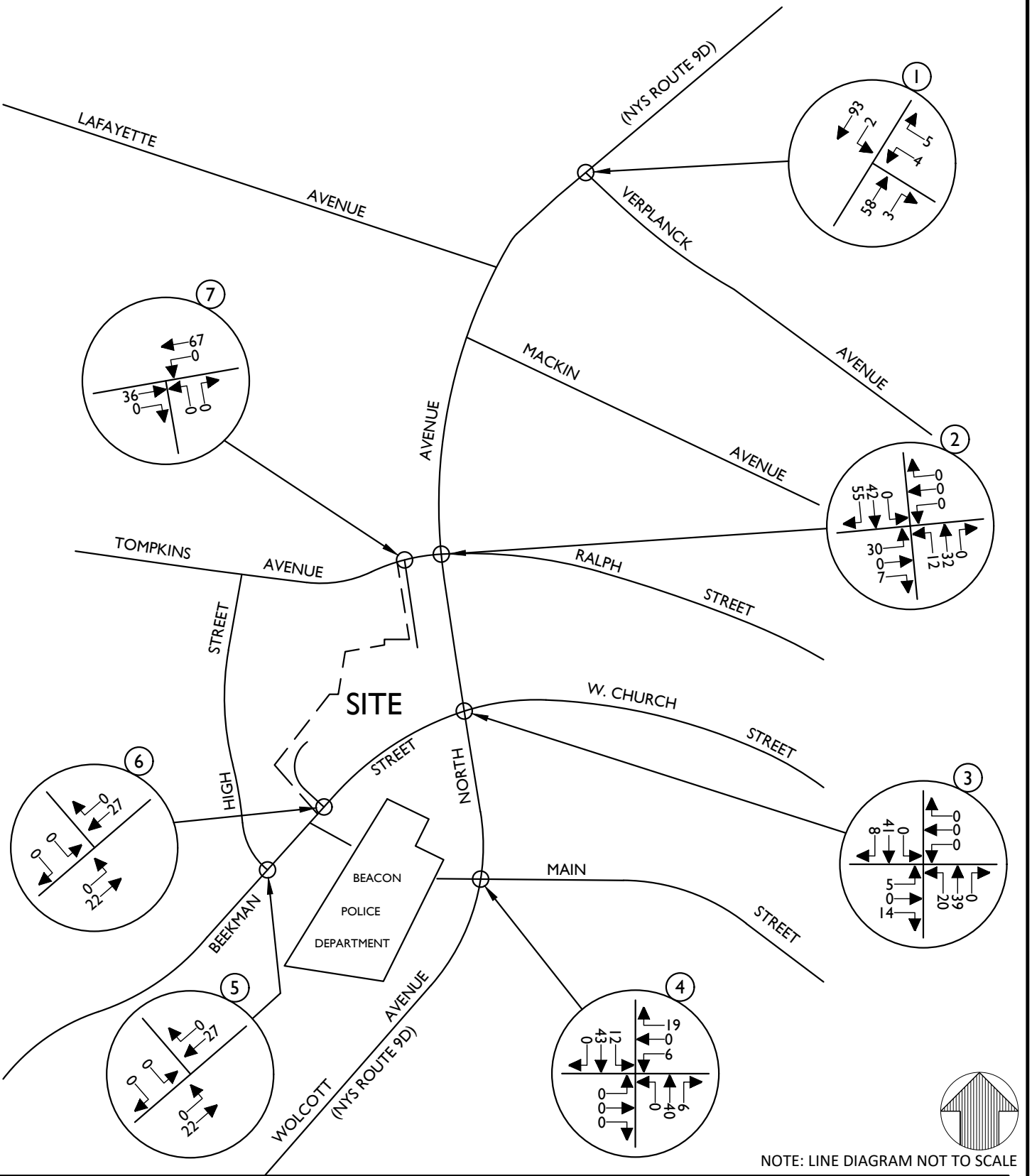
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SHEET TITLE: FIELD BOOK: XX PAGE: XX
TOTAL OTHER DEVELOPMENT
TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER: 24

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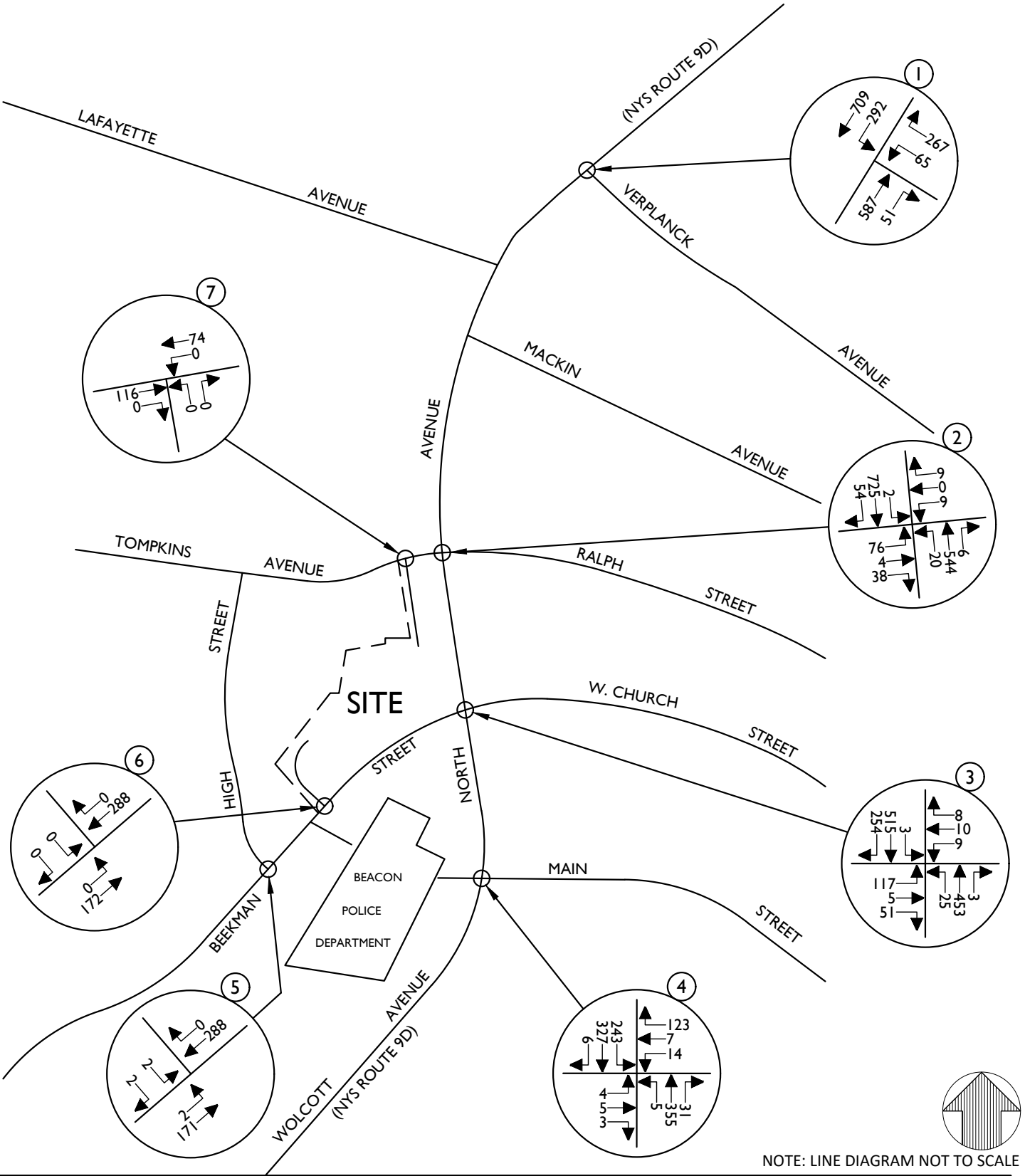
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PROJECT NUMBER:	DRAWING NAME:
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SHEET TITLE: FIELD BOOK: XX PAGE: XX
TOTAL OTHER DEVELOPMENT
TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR

SHEET NUMBER: 25

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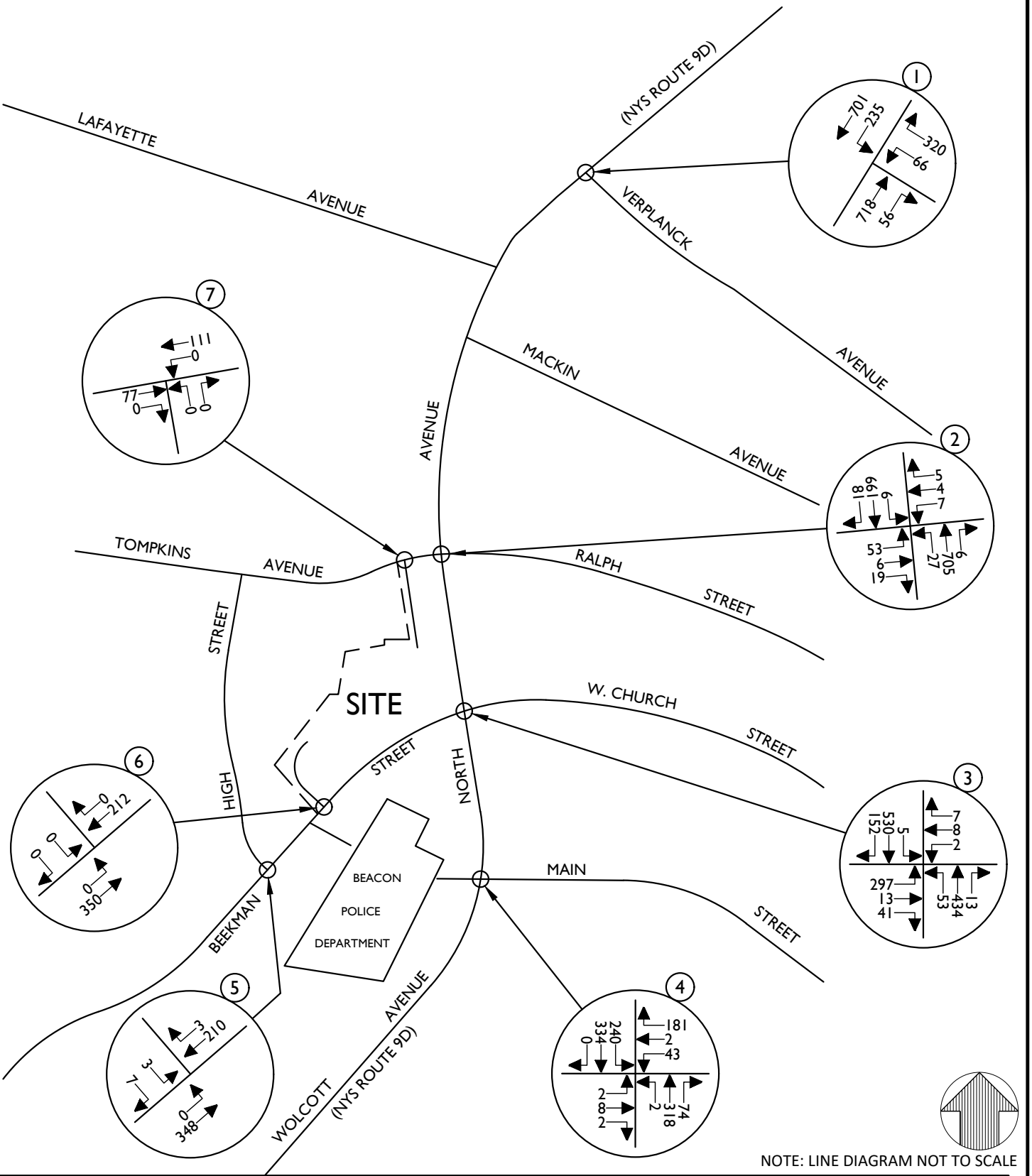
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SHEET TITLE: FIELD BOOK: XX PAGE:XX

2026 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER: 26

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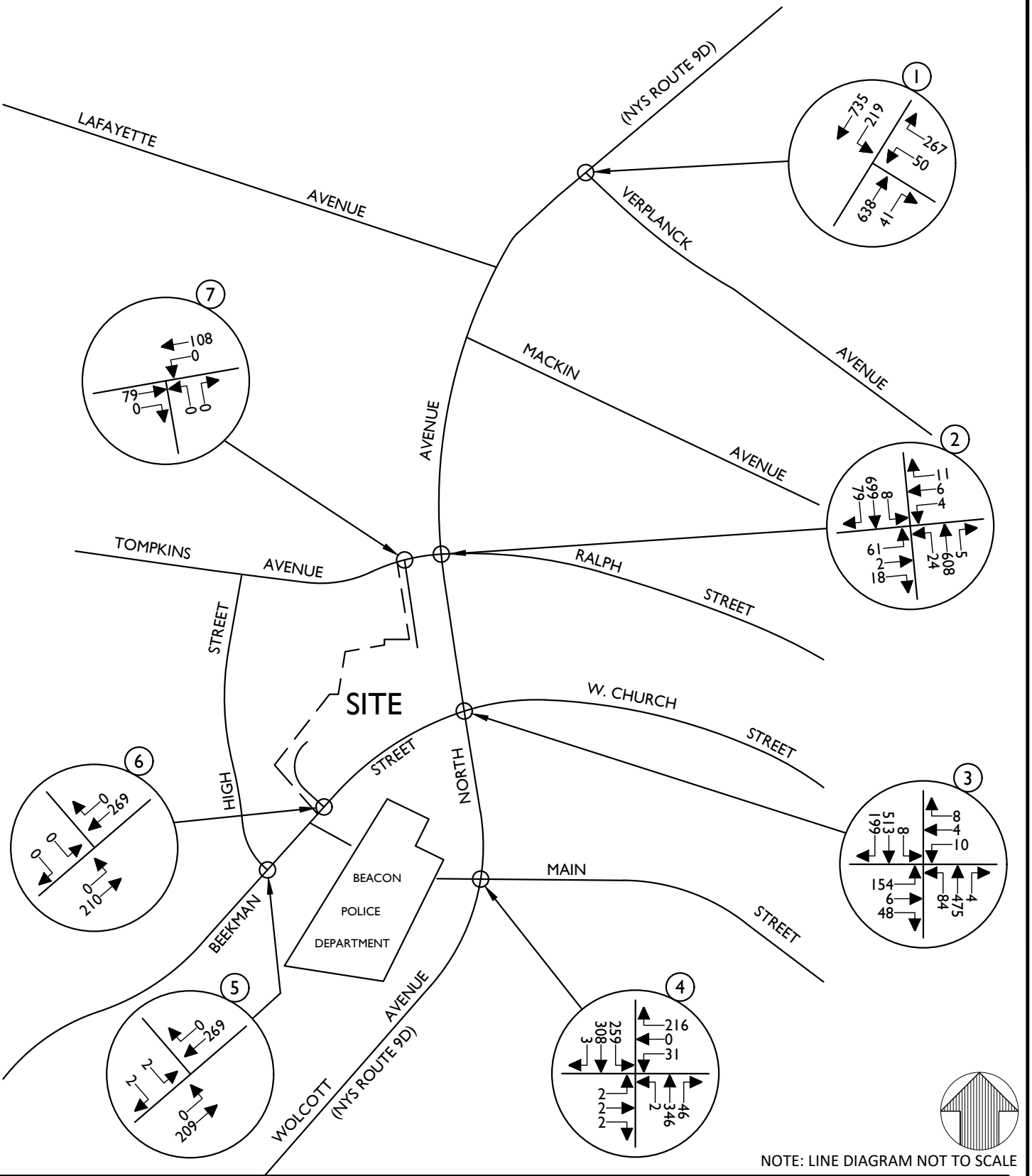
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SHEET TITLE: FIELD BOOK: XX PAGE:XX

2026 NO-BUILD TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER: 27

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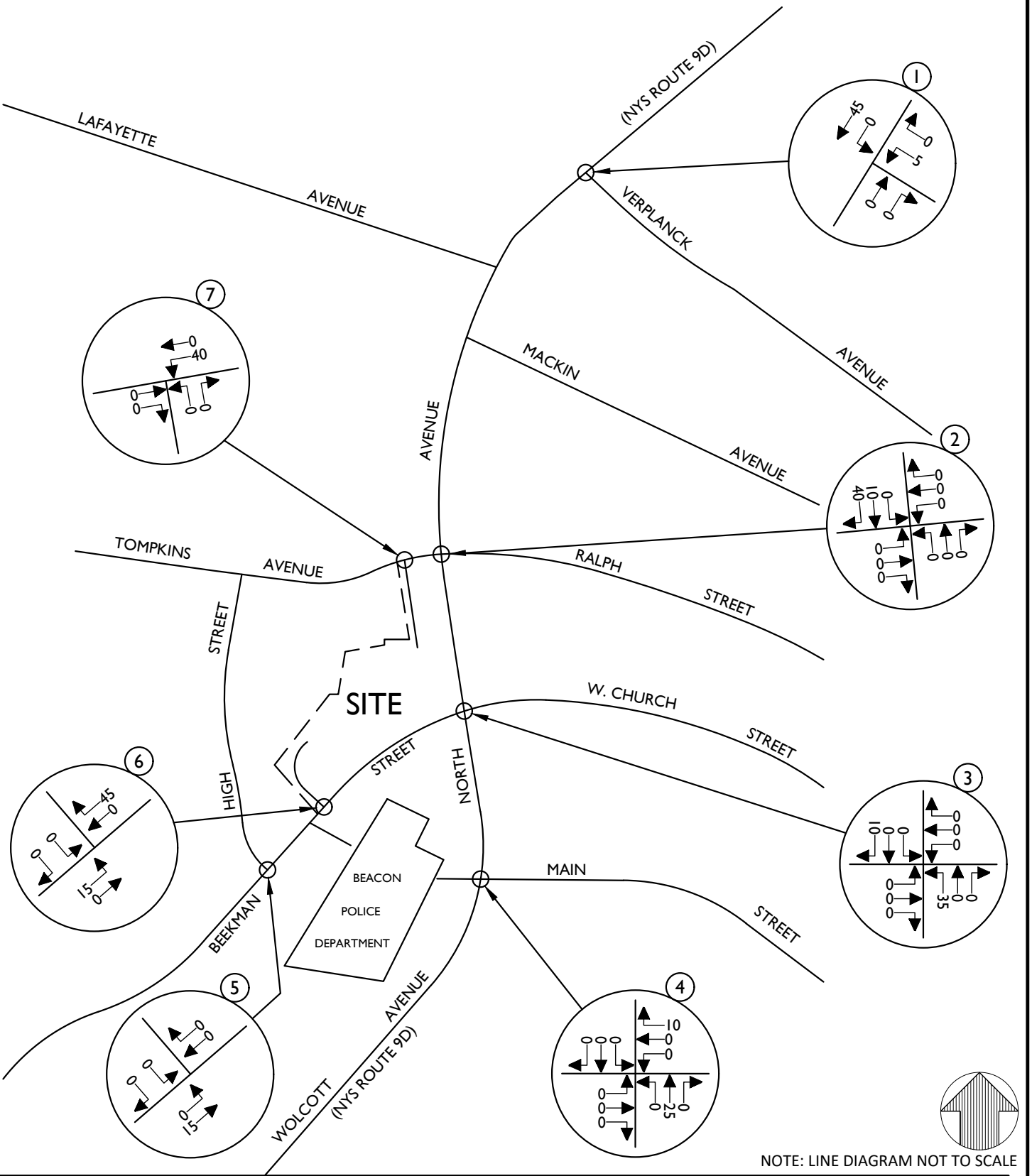
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SHEET TITLE: FIELD BOOK: XX PAGE:XX

2026 NO-BUILD TRAFFIC VOLUMES
WEEKEND PEAK SAT HOUR

SHEET NUMBER: 28

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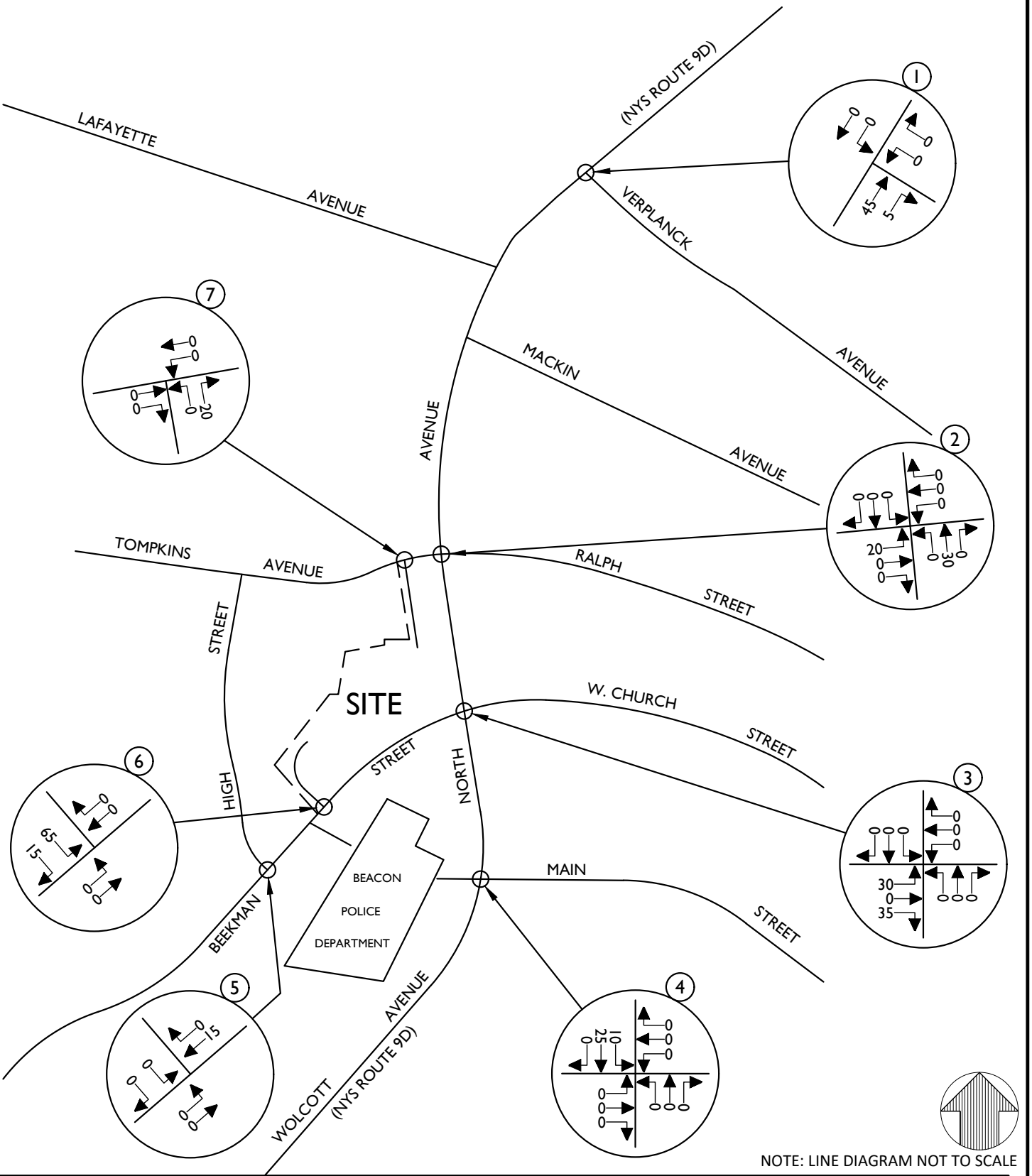
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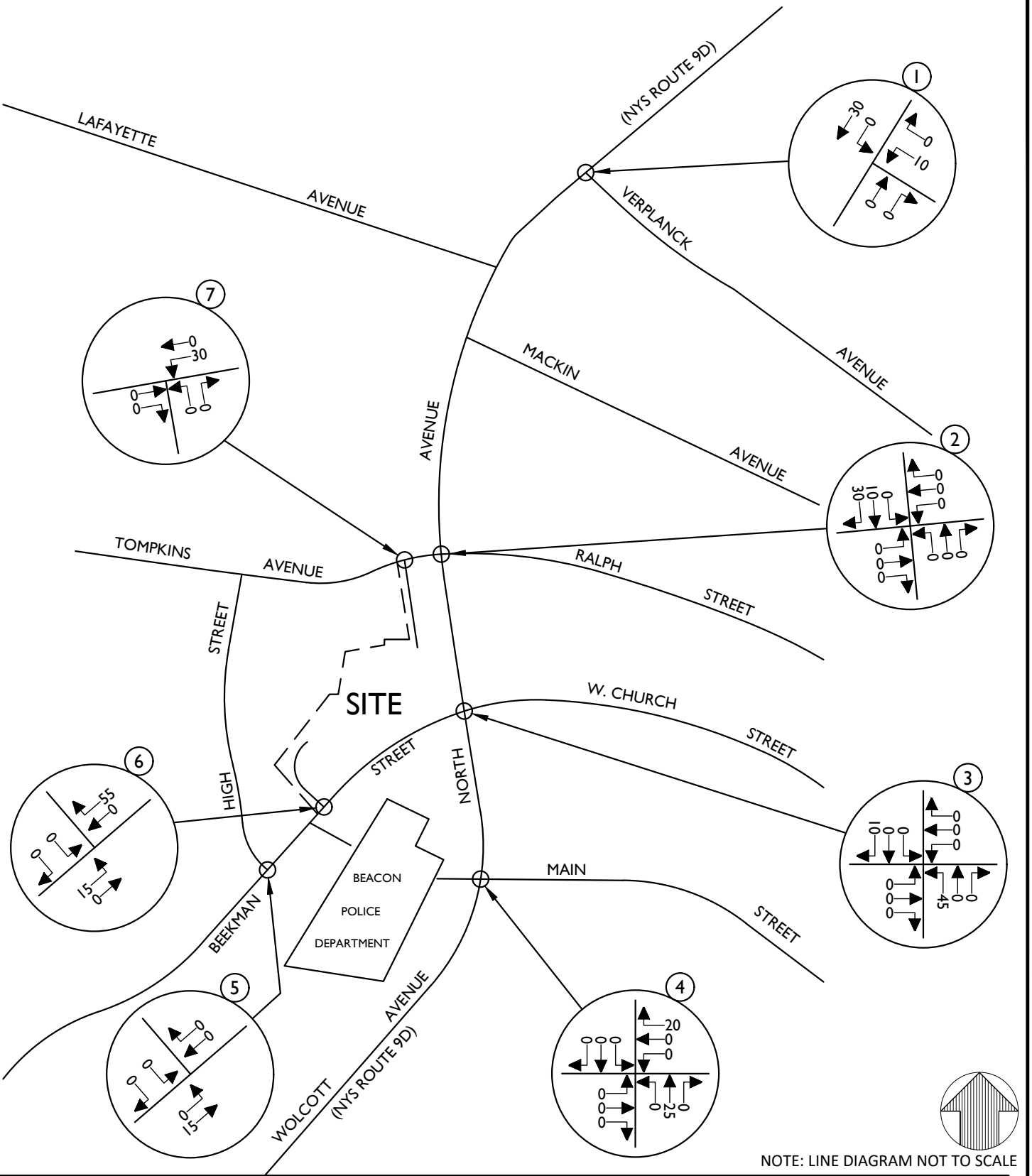
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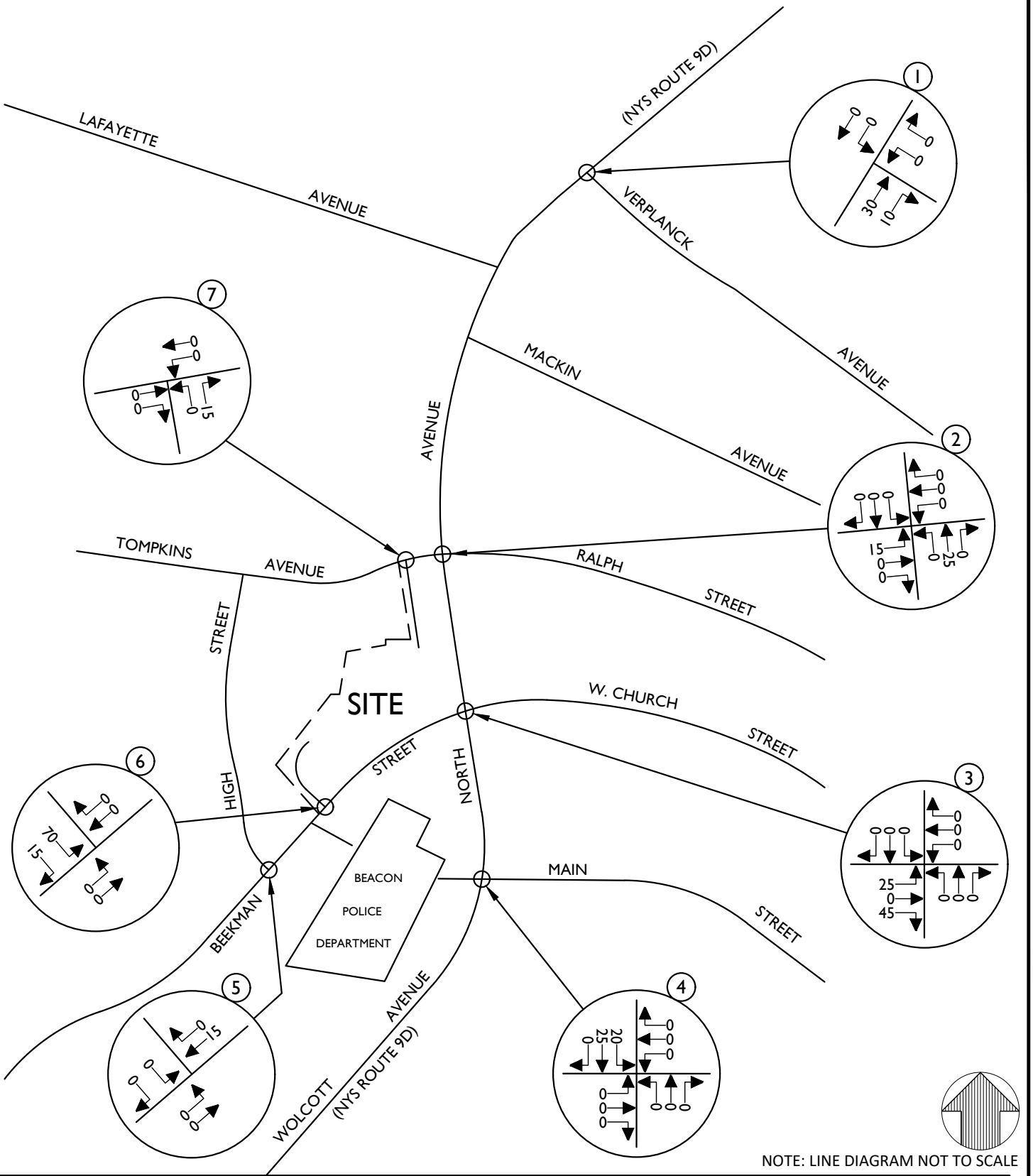
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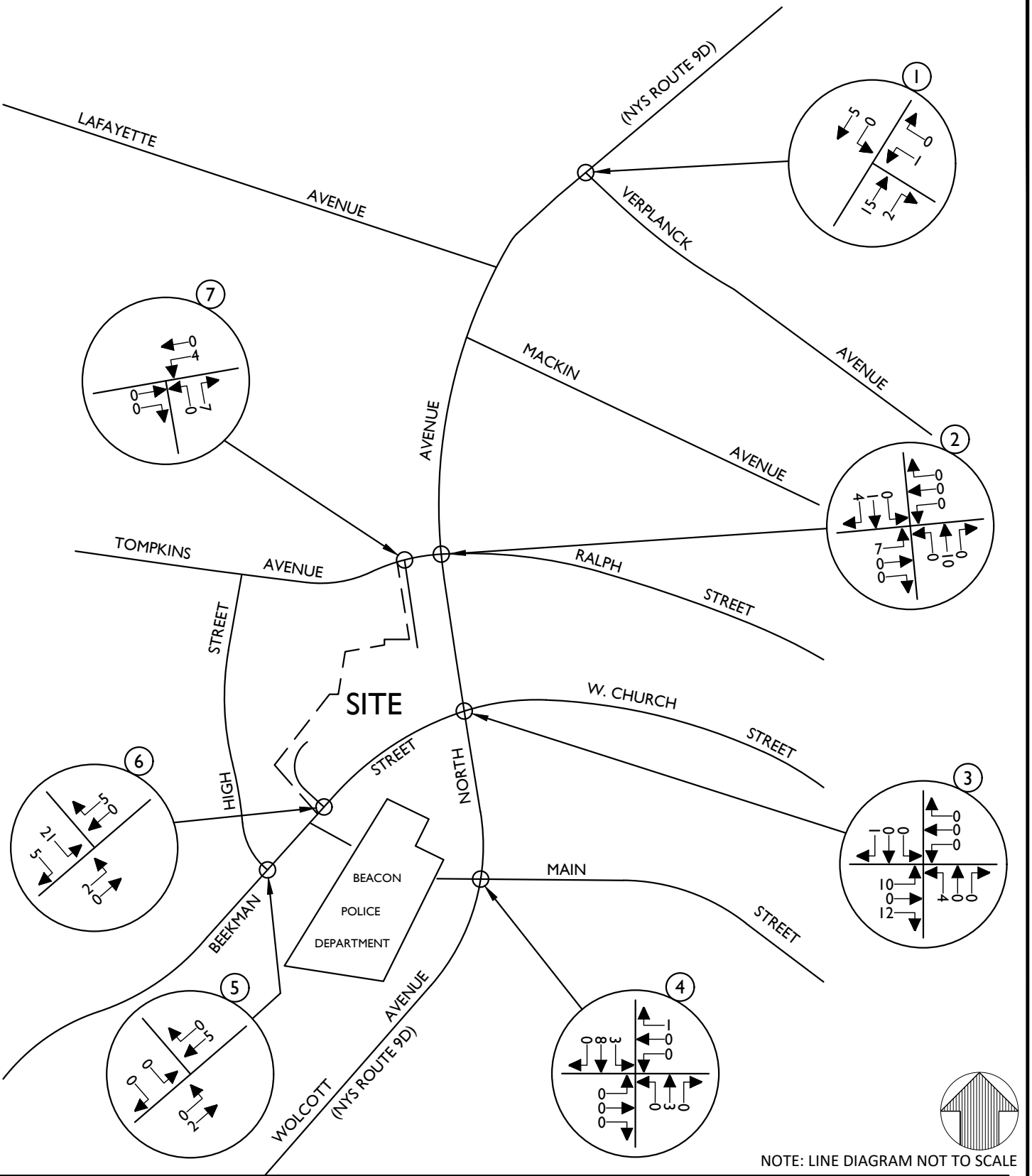
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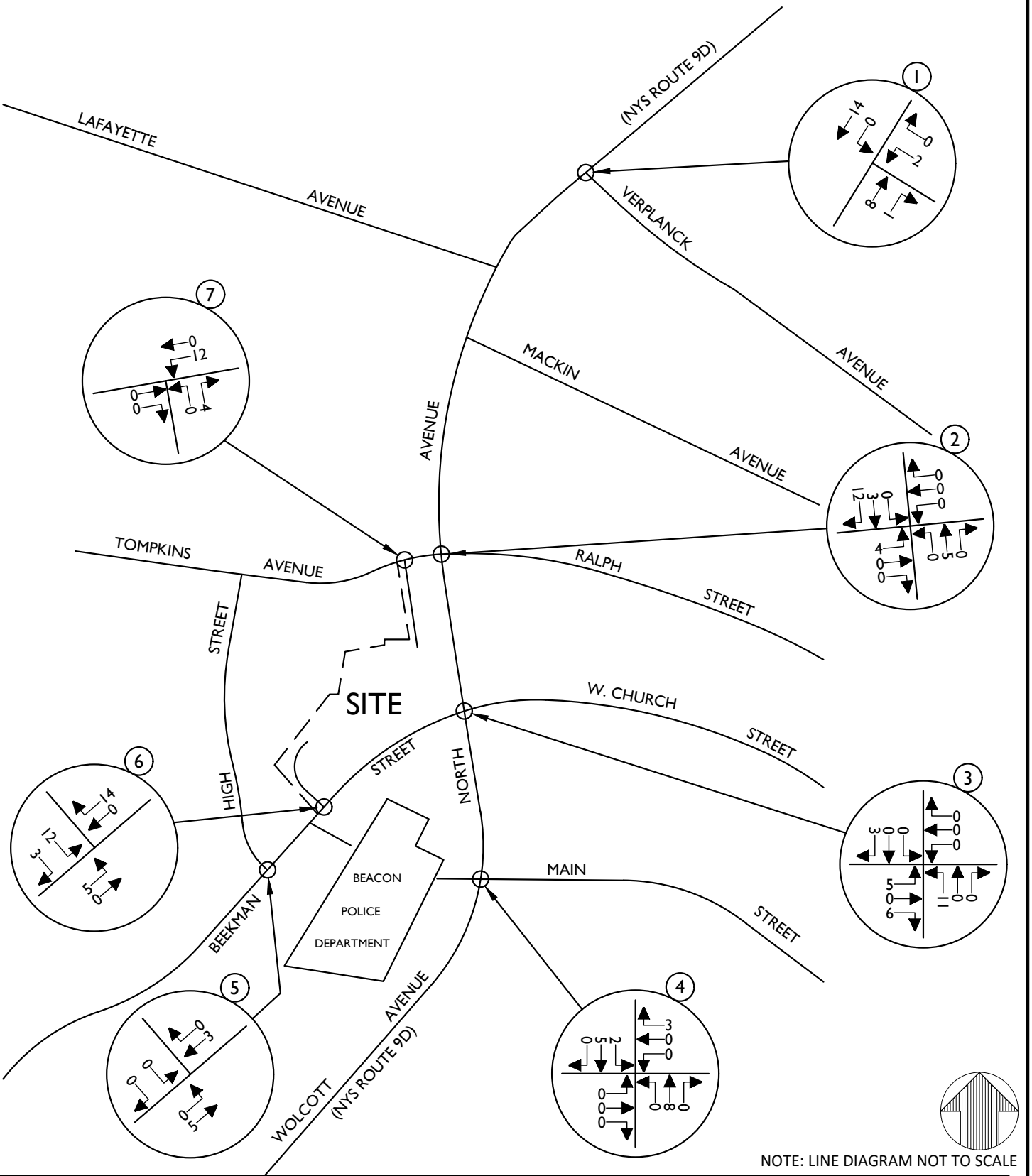
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PROJECT NUMBER:	DRAWING NAME:
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SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR
(RESIDENTIAL)

SHEET NUMBER: 33

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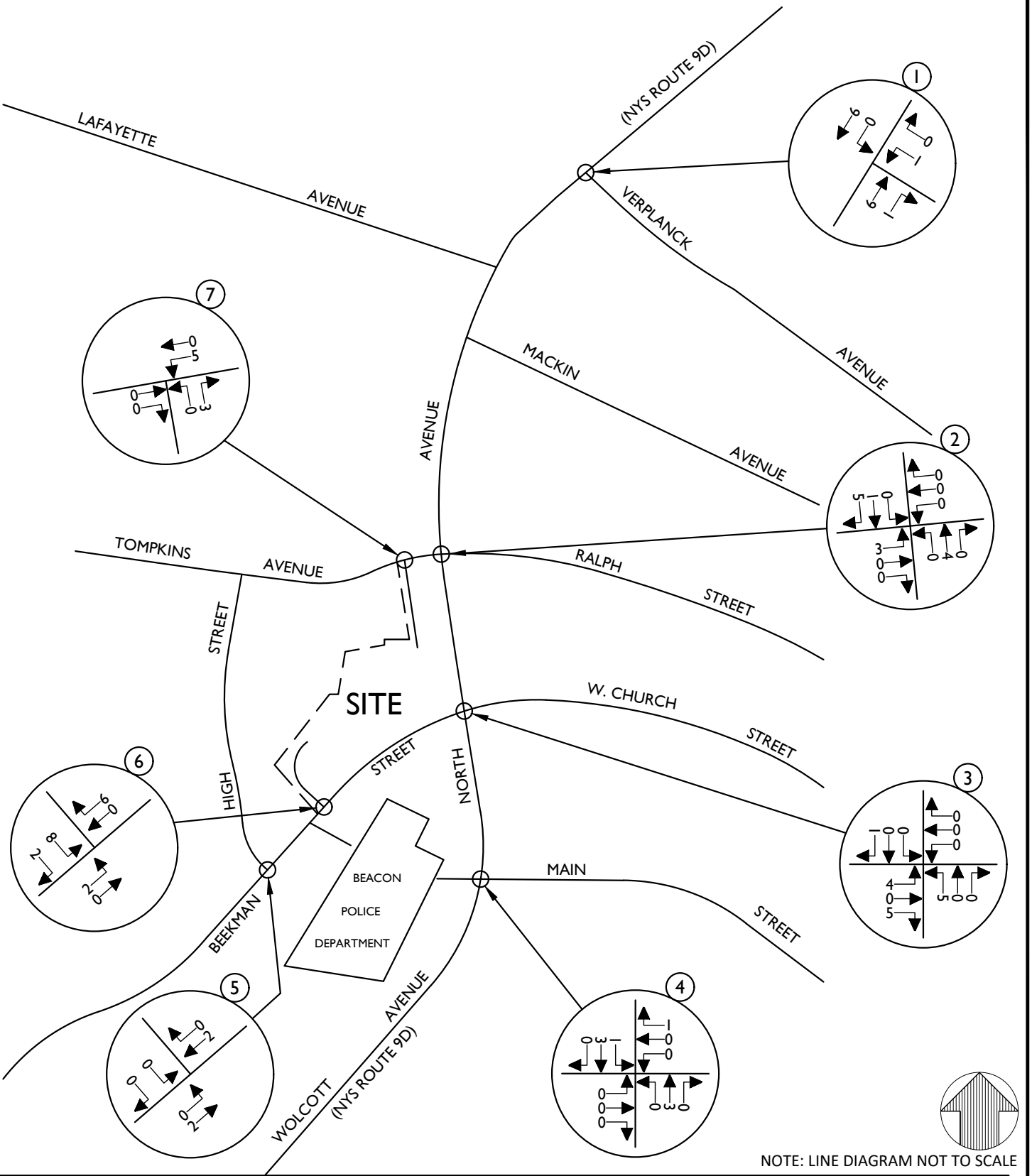
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WEEKDAY PEAK PM HOUR
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SHEET NUMBER: 34

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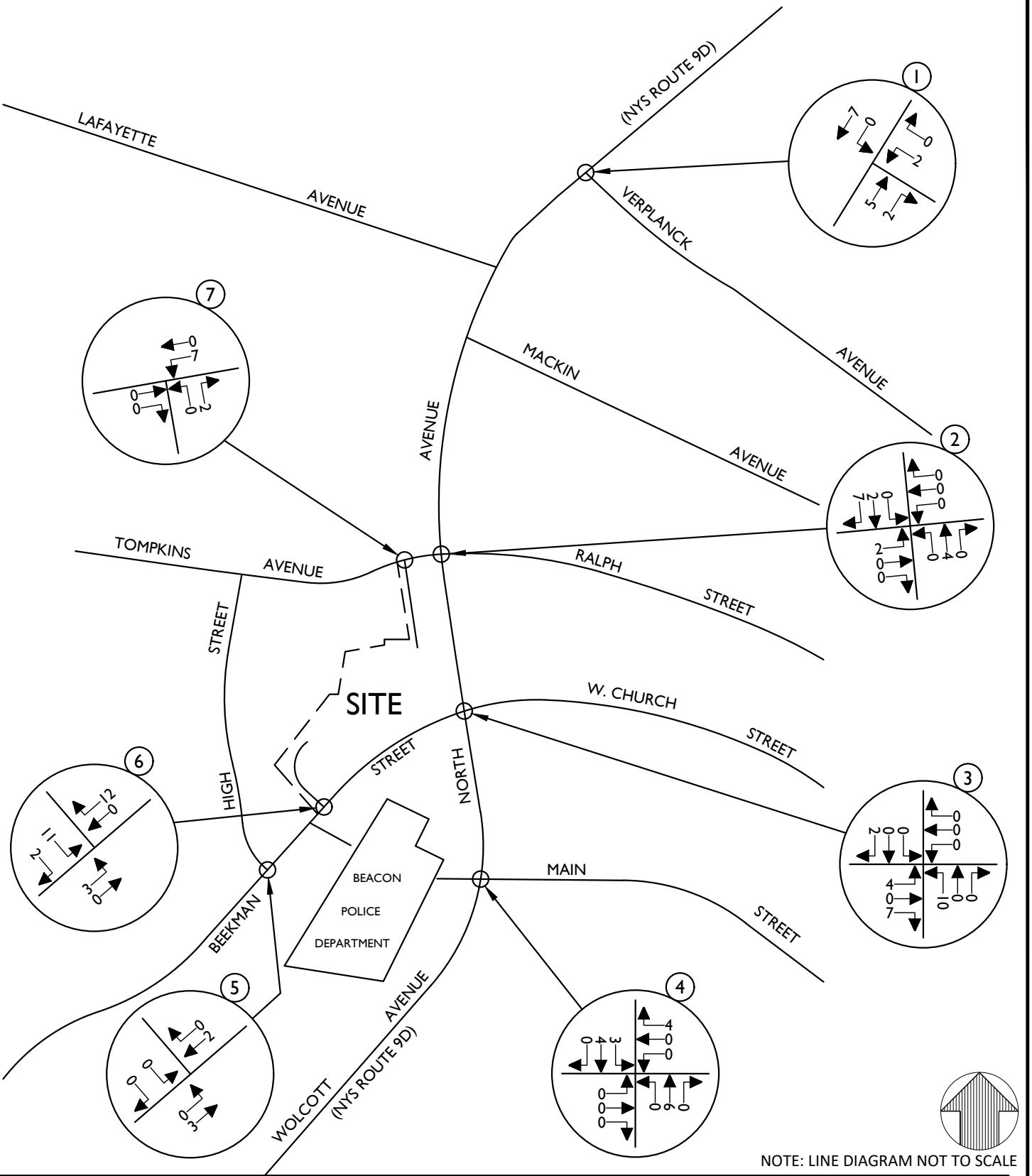
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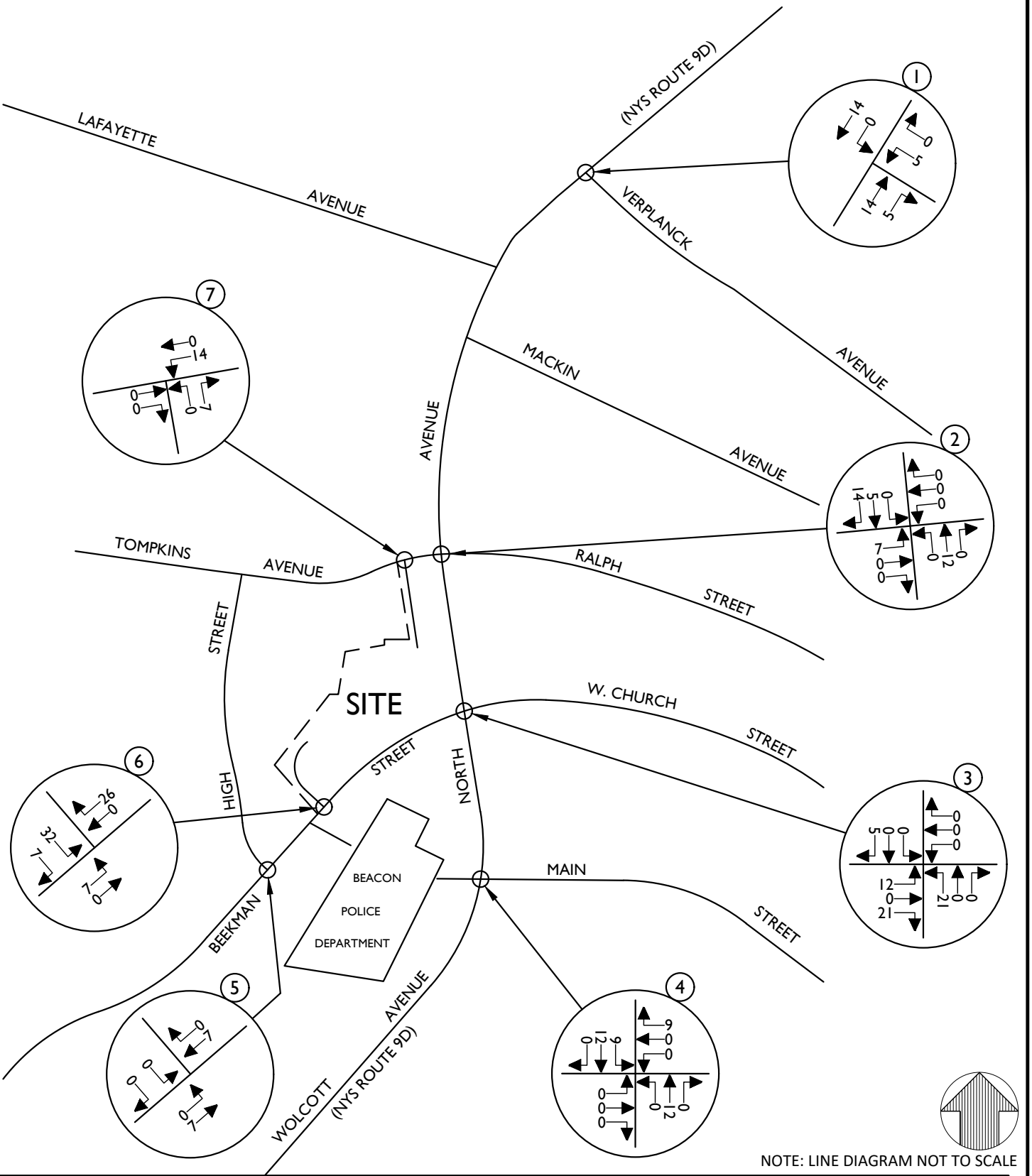
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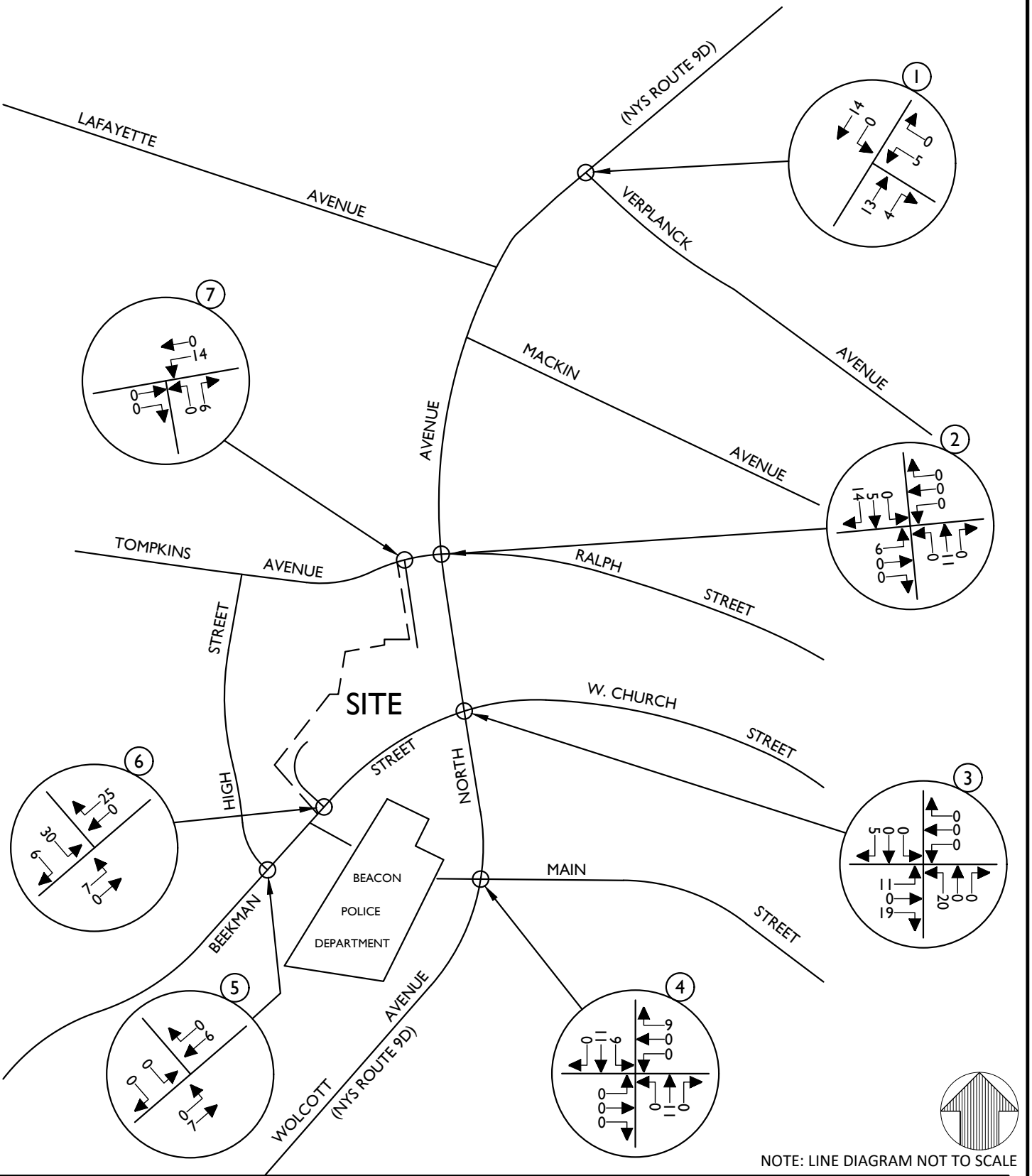
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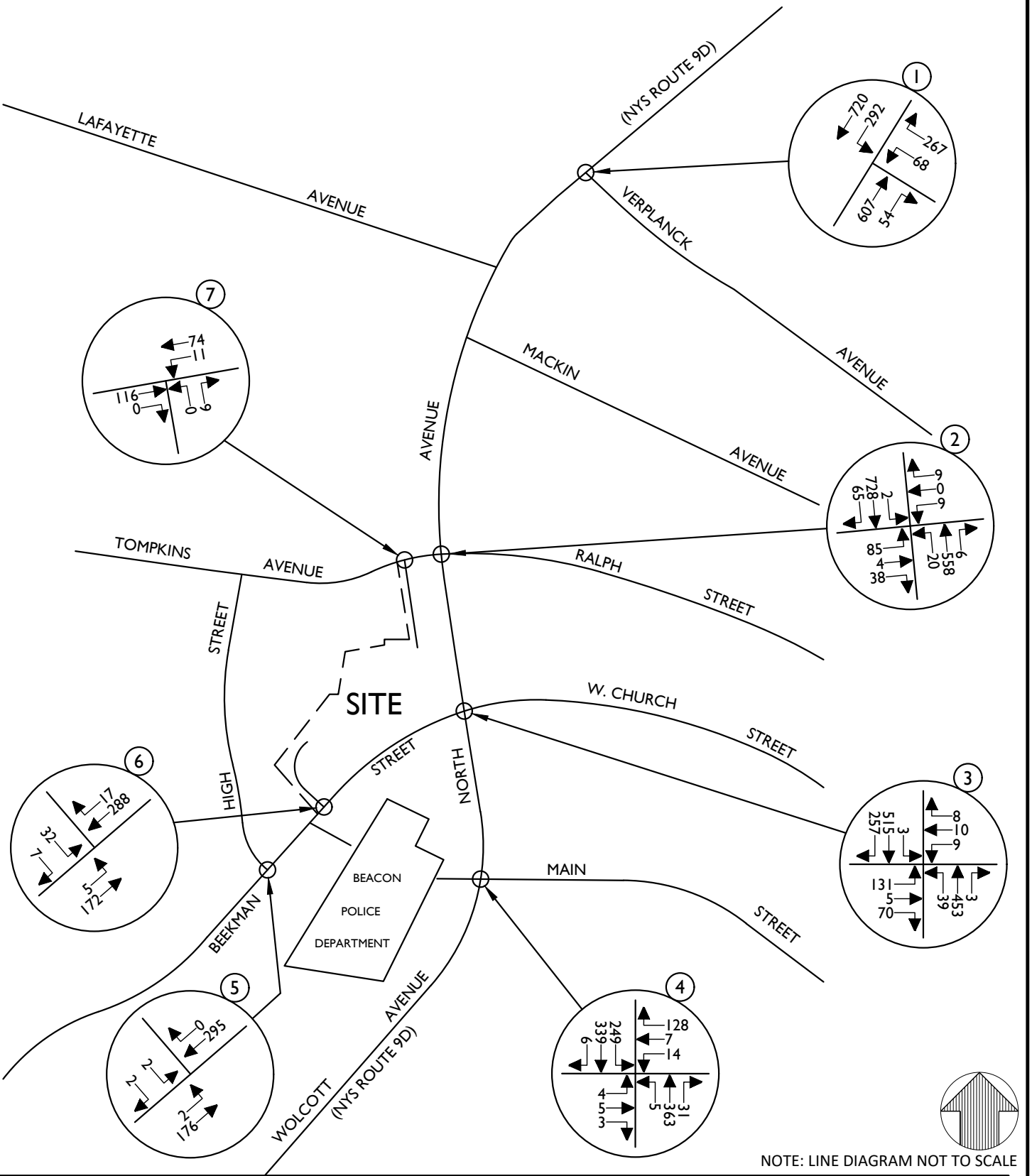
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WEEKEND PEAK SAT HOUR
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SHEET NUMBER: 38

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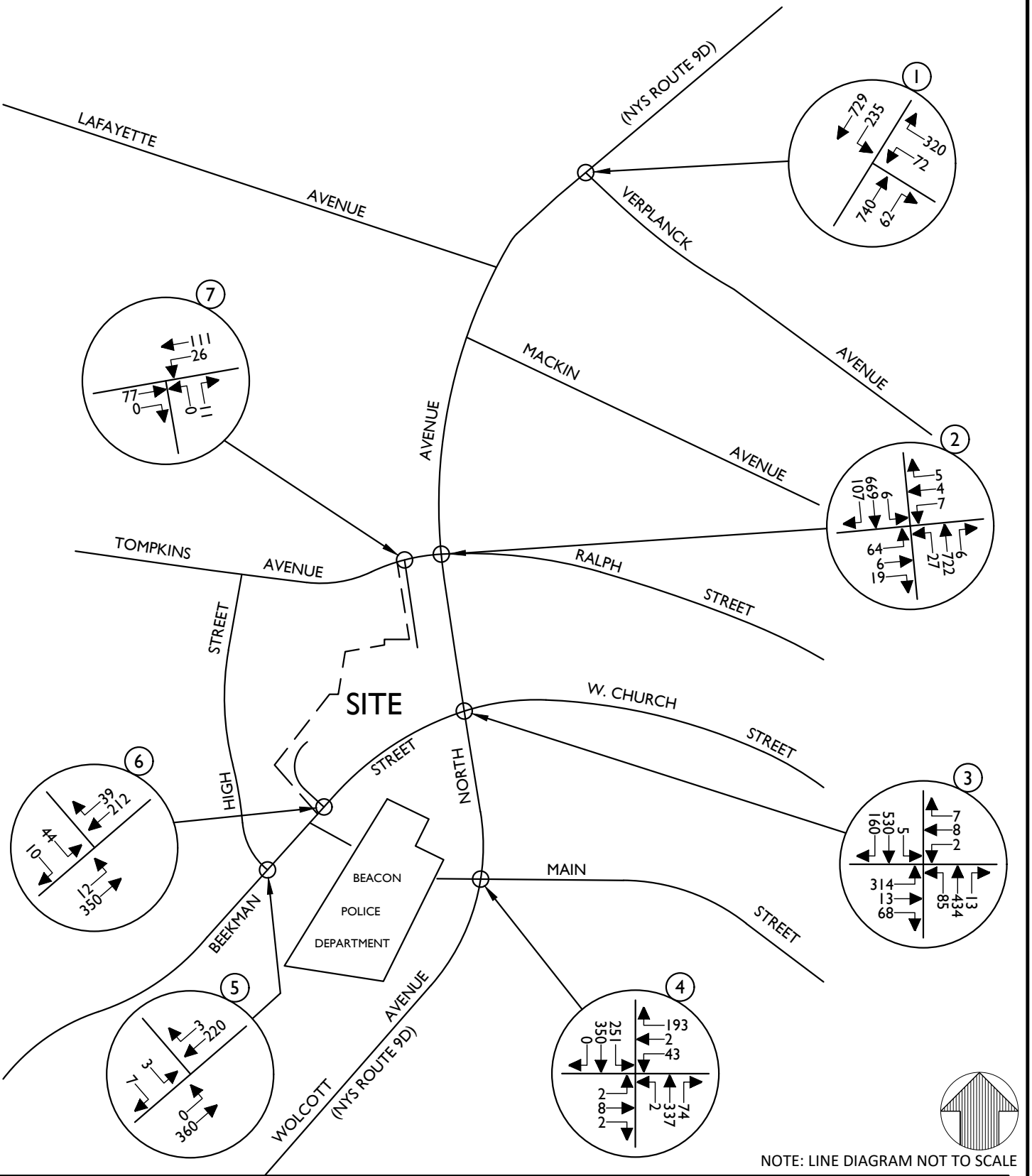
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2026 BUILD TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

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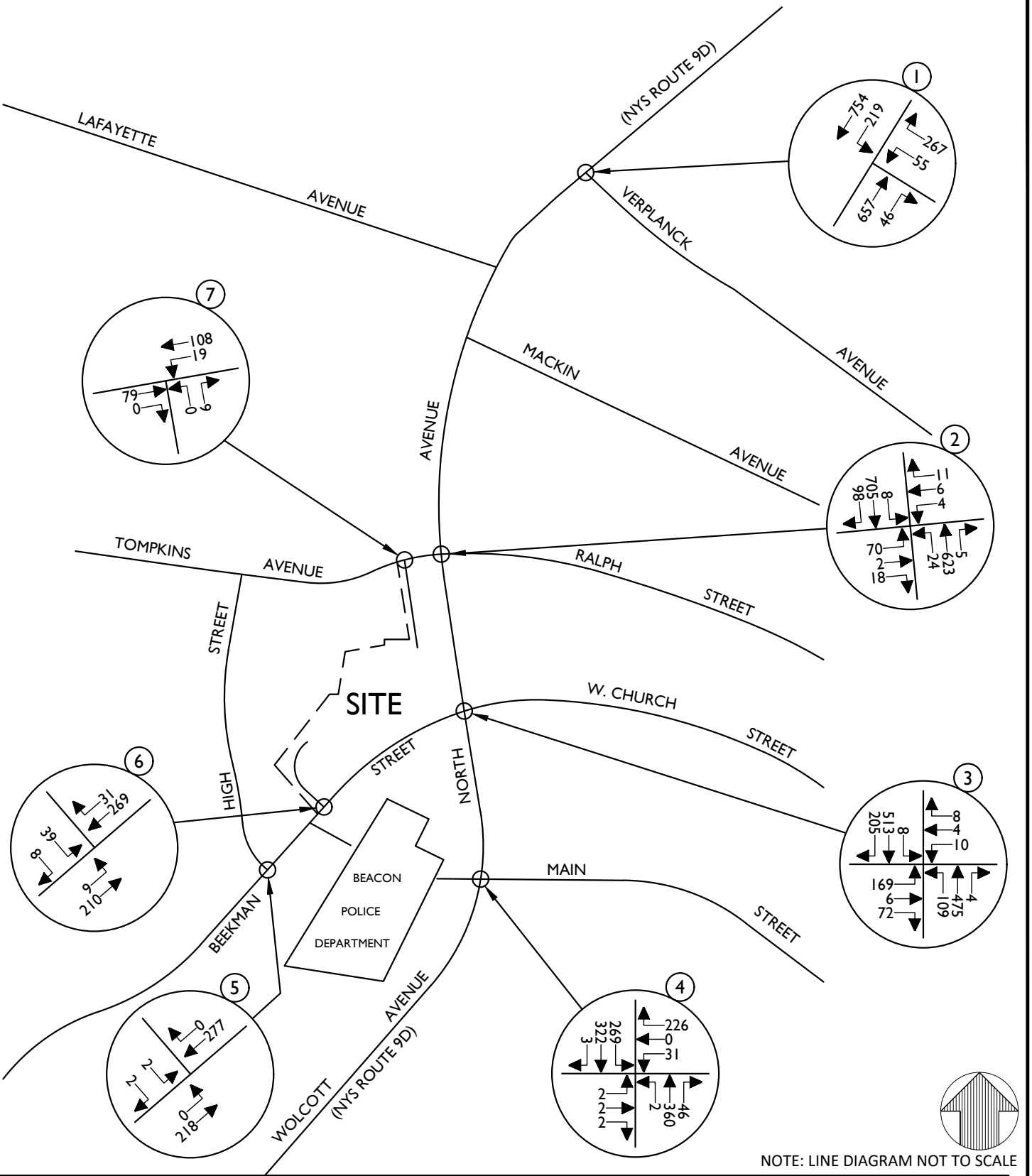
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WEEKEND PEAK SAT HOUR

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Appendix B | Tables

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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	0.16	10	10	0.52	33	33
Peak PM Hour	0.47	30	30	0.28	18	18
Saturday Peak Hour	0.20	13	13	0.20	13	13
Commercial (14,892 Sq. Ft.)						
Peak AM Hour	1.48	22	22	1.01	15	15
Peak PM Hour	3.49	52	47	3.42	51	46
Saturday Peak Hour	3.36	50	45	3.22	48	43
Total						
Peak AM Hour	-	32	32	-	48	48
Peak PM Hour	-	82	77	-	69	64
Saturday Peak Hour	-	63	58	-	61	56

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. 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	14,892		37	22	15
Restaurant				0		
Cinema/Entertainment				0		
Residential	220		64	43	10	33
Hotel				0		
All Other Land Uses[2]				0		
				80	32	48

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	80	32	48
Internal Capture Percentage	0%	0%	0%
External Vehicle-Trips[5]	80	32	48
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

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	15	15
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	15	15	15	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 NO. 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	14,892		103	52	51
Restaurant				0		
Cinema/Entertainment				0		
Residential	220		64	48	30	18
Hotel				0		
All Other Land Uses[2]				0		
				151	82	69

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	151	82	69
Internal Capture Percentage	24%	22%	26%
External Vehicle-Trips[5]	115	64	51
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%	25%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	43%	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

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	52	52	1.00	51	51
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	30	30	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		15	2	13	3
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	26		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	47	52	47	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	13	17	30	17	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	38	51	38	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. 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	14,892		98	50	48
Restaurant				0		
Cinema/Entertainment				0		
Residential	220		64	26	13	13
Hotel				0		
All Other Land Uses[2]				0		
				124	63	61

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	6	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	124	63	61
Internal Capture Percentage	18%	17%	18%
External Vehicle-Trips[5]	102	52	50
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%	13%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	46%	38%
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

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	48	48
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	13	13	1.00	13	13
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	12	2
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	1	5	3	0		0
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	6	0
Restaurant	0	25		0	2	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	6	7	13	7	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	6	42	48	42	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	5	8	13	8	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	0.34	C	22.0	0.36	C	23.0	1.0
			R	0.79	B	18.0	0.82	C	21.6	0.83	C	22.3	0.7
		WB Approach		***-***	***B***	***18.0***	***-***	***C***	***21.7***	***-***	***C***	***22.5***	***0.8***
	NYS Route 9D	NB	TR	0.82	B	15.2	0.87	B	17.0	0.87	B	17.3	0.3
		NB Approach		***-***	***B***	***15.2***	***-***	***B***	***17.0***	***-***	***B***	***17.3***	***0.3***
	NYS Route 9D	SB	L	0.78	B	19.9	0.81	C	23.3	0.82	C	24.1	0.8
			T	0.58	A	6.1	0.60	A	5.8	0.60	A	5.7	-0.1
		SB Approach		***-***	***B***	***10.3***	***-***	***B***	***10.9***	***-***	***B***	***11.0***	***0.1***
		Overall		**-**	**B**	**13.1**	**-**	**B**	**14.7**	**-**	**B**	**15.0**	**0.3**
2	**NYS Route 9D & Tompkins Avenue/ Ralph Street**	**Unsignalized**											
	Tompkins Avenue	EB	LTR	0.18	C	21.2	0.68	F	58.5	0.77	F	72.8	14.3
	Ralph Street	WB	LTR	0.08	C	24.7	0.12	D	31.9	0.13	D	32.8	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
	With Beekman Street Signal Improvements												
	Tompkins Avenue	EB	LTR	-	-	-	-	-	-	0.77	F	72.5	14.0
	Ralph Street	WB	LTR	-	-	-	-	-	-	0.13	D	32.8	0.9
	NYS Route 9D	NB	LTR	-	-	-	-	-	-	0.03	A	9.7	0.1
	NYS Route 9D	SB	LTR	-	-	-	-	-	-	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	6.2	0.45	A	1.0	-5.2
		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	0.52	C	28.5	0.54	C	27.2	-1.3
			R	0.11	C	25.1	0.16	C	23.1	0.19	C	21.2	-1.9
		EB Approach		***-***	***C***	***29.0***	***-***	***C***	***26.9***	***-***	***C***	***25.1***	***-1.8***
	W. Church Street	WB	LTR	0.12	C	25.4	0.13	C	23.4	0.13	C	21.7	-1.7
		WB Approach		***-***	***C***	***25.4***	***-***	***C***	***23.4***	***-***	***C***	***21.7***	***-1.7***
	NYS Route 9D	NB	L	0.03	B	19.7	0.05	C	22.0	0.09	C	24.2	2.2
			TR	0.64	C	25.4	0.72	C	27.8	0.72	C	27.8	0.0
		NB Approach		***-***	***C***	***25.2***	***-***	***C***	***27.5***	***-***	***C***	***27.5***	***0.0***
	NYS Route 9D	SB	L	0.00	B	12.2	0.00	B	15.5	0.01	B	17.4	1.9
			TR	1.34	F	191.4	1.51	F	262.2	1.51	F	264.9	2.7
		SB Approach		***-***	***F***	***190.9***	***-***	***F***	***261.3***	***-***	***F***	***264.0***	***2.7***
		Overall		**-**	**F**	**115.3**	**-**	**F**	**151.5**	**-**	**F**	**149.0**	**-2.5**
	<u>With Signal Timing & Phasing Modifications</u>												
	Beekman Street	EB	LT	-	-	-	-	-	-	0.80	D	41.1	12.6
			R	-	-	-	-	-	-	0.34	C	34.6	11.5
		EB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***D***	***38.9***	***12.0***
	W. Church Street	WB	LTR	-	-	-	-	-	-	0.49	D	45.3	21.9
		WB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***D***	***45.3***	***21.9***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.16	B	14.5	-7.5
			TR	-	-	-	-	-	-	0.39	A	9.4	-18.4
		NB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***A***	***9.8***	***-17.7***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.01	A	7.6	-7.9
			TR	-	-	-	-	-	-	0.84	C	21.0	-241.2
		SB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***C***	***21.0***	***-240.3***
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**C**	**20.2**	**-131.3**

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	28.0	0.07	C	27.9	-0.1
		EB Approach		***-***	***C***	***28.4***	***-***	***C***	***28.0***	***-***	***C***	***27.9***	***-0.1***
	Main Street	WB	LT	0.05	C	28.4	0.07	C	28.0	0.07	C	27.8	-0.2
			R	0.31	C	25.1	0.33	C	24.4	0.34	C	24.2	-0.2
		WB Approach		***-***	***C***	***25.5***	***-***	***C***	***24.9***	***-***	***C***	***24.7***	***-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	0.44	B	10.4	0.45	B	10.8	0.4
		NB Approach		***-***	***A***	***9.0***	***-***	***B***	***10.4***	***-***	***B***	***10.7***	***0.3***
	NYS Route 9D	SB	L	0.37	A	5.2	0.44	A	6.1	0.46	A	6.3	0.2
			TR	0.25	A	5.5	0.32	A	6.1	0.33	A	6.2	0.1
		SB Approach		***-***	***A***	***5.4***	***-***	***A***	***6.1***	***-***	***A***	***6.3***	***0.2***
		Overall		**-**	**A**	**9.5**	**-**	**B**	**10.3**	**-**	**B**	**10.4**	**0.1**
	<u>With Signal Timing & Cooridnation Modifications</u>												
	City Hall	EB	LTR	-	-	-	-	-	-	0.07	C	34.0	6.0
		EB Approach		-	-	-	-	-	-	***-***	***C***	***34.0***	***6.0***
	Main Street	WB	LT	-	-	-	-	-	-	0.07	C	33.9	5.9
			R	-	-	-	-	-	-	0.37	C	30.4	6.0
		WB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***C***	***30.9***	***6.0***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.01	A	6.4	-0.4
			TR	-	-	-	-	-	-	0.41	A	9.8	-0.6
		NB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***A***	***9.8***	***-0.6***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.44	A	5.9	-0.2
			TR	-	-	-	-	-	-	0.31	A	5.8	-0.3
		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	10.5	0.01	B	10.6	0.1
6	**Beekman Street &**	**Unsignalized**											
	Site Access	EB	LT	-	-	-	-	-	-	0.01	A	8.1	-
		SB	LR	-	-	-	-	-	-	0.10	B	13.3	-
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	0.25	C	26.7	0.29	C	28.4	1.7
			R	0.85	C	23.6	0.88	C	28.7	0.89	C	30.0	1.3
		WB Approach		***-***	***C***	***23.2***	***-***	***C***	***28.3***	***-***	***C***	***29.7***	***1.4***
	NYS Route 9D	NB	TR	0.88	B	19.2	0.92	C	28.2	0.93	C	31.0	2.8
		NB Approach		***-***	***B***	***19.2***	***-***	***C***	***28.2***	***-***	***C***	***31.0***	***2.8***
	NYS Route 9D	SB	L	0.79	C	27.5	0.83	C	32.9	0.83	C	34.4	1.5
			T	0.51	A	6.6	0.58	A	7.0	0.59	A	7.0	0.0
		SB Approach		***-***	***B***	***12.4***	***-***	***B***	***13.5***	***-***	***B***	***13.7***	***0.2***
		Overall		**-**	**B**	**17.0**	**-**	**C**	**21.6**	**-**	**C**	**23.0**	**1.4**
2	**NYS Route 9D & Tompkins Avenue/ Ralph Street**	**Unsignalized**											
	Tompkins Avenue	EB	LTR	0.20	D	27.8	0.63	F	69.6	0.79	F	100.6	31.0
	Ralph Street	WB	LTR	0.09	D	31.3	0.16	E	44.4	0.17	E	47.2	2.8
	NYS Route 9D	NB	LTR	0.02	A	9.0	0.04	A	9.6	0.04	A	9.8	0.2
	NYS Route 9D	SB	LTR	0.01	A	9.0	0.01	A	9.3	0.01	A	9.4	0.1
	With Beekman Street Signal Improvements												
	Tompkins Avenue	EB	LTR	-	-	-	-	-	-	0.79	F	99.1	29.5
	Ralph Street	WB	LTR	-	-	-	-	-	-	0.17	E	46.8	2.4
	NYS Route 9D	NB	LTR	-	-	-	-	-	-	0.04	A	9.8	0.2
	NYS Route 9D	SB	LTR	-	-	-	-	-	-	0.01	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	37.8	-0.6
		WB Approach		***-***	***-***	***-***	***-***	***D***	***38.4***	***-***	***D***	***37.8***	***-0.6***
	NYS Route 9D	NB	L	-	-	-	0.06	A	4.0	0.06	A	4.6	0.6
			TR	-	-	-	0.53	A	1.3	0.55	A	6.5	5.2
		NB Approach		***-***	***-***	***-***	***-***	***A***	***1.4***	***-***	***A***	***6.5***	***5.1***
	NYS Route 9D	SB	L	-	-	-	0.01	A	3.0	0.01	A	4.5	1.5
			TR	-	-	-	0.52	A	6.4	0.56	A	7.1	0.7
		SB Approach		***-***	***-***	***-***	***-***	***A***	***6.4***	***-***	***A***	***7.1***	***0.7***
		Overall		**-**	**-**	**-**	**-**	**A**	**6.1**	**-**	**A**	**8.9**	**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	1.71	F	375.4	1.80	F	415.9	40.5
			R	0.04	B	17.1	0.07	B	17.3	0.12	B	17.7	0.4
		EB Approach		***-***	***F***	***365.9***	***-***	***F***	***333.2***	***-***	***F***	***347.2***	***14.0***
	W. Church Street	WB	LTR	0.03	B	18.1	0.05	B	19.3	0.05	B	19.3	0.0
		WB Approach		***-***	***B***	***18.1***	***-***	***B***	***19.3***	***-***	***B***	***193.0***	***173.7***
	NYS Route 9D	NB	L	0.09	C	31.3	0.15	C	31.3	0.23	C	31.3	0.0
			TR	0.73	D	36.9	0.84	D	43.1	0.84	D	42.8	-0.3
		NB Approach		***-***	***D***	***36.5***	***-***	***D***	***41.8***	***-***	***D***	***41.0***	***-0.8***
	NYS Route 9D	SB	L	0.01	C	24.7	0.01	C	27.3	0.01	C	27.3	0.0
			TR	1.36	F	207.9	1.55	F	291.1	1.57	F	300.8	9.7
		SB Approach		***-***	***F***	***206.7***	***-***	***F***	***289.3***	***-***	***F***	***298.9***	***9.6***
		Overall		**-**	**F**	**188.4**	**-**	**F**	**216.6**	**-**	**F**	**223.9**	**7.3**
	<u>With Signal Timing & Phasing Modifications</u>												
	Beekman Street	EB	LT	-	-	-	-	-	-	0.90	D	52.3	-323.1
			R	-	-	-	-	-	-	0.18	C	25.6	8.3
		EB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***D***	***47.7***	***-285.5***
	W. Church Street	WB	LTR	-	-	-	-	-	-	0.44	D	46.2	26.9
		WB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***D***	***46.2***	***26.9***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.39	B	18.6	-12.7
			TR	-	-	-	-	-	-	0.44	B	14.1	-29.0
		NB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***B***	***14.8***	***-27.0***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.01	B	12.0	-15.3
			TR	-	-	-	-	-	-	0.89	C	31.2	-259.9
		SB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***C***	***31.1***	***-258.2***
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**C**	**30.0**	**-186.6**

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	0.06	C	32.2	0.06	C	31.8	-0.4
		EB Approach		***-***	***C***	***33.0***	***-***	***C***	***32.2***	***-***	***C***	***31.8***	***-0.4***
	Main Street	WB	LT	0.12	C	33.4	0.14	C	32.7	0.14	C	32.3	-0.4
			R	0.43	C	30.6	0.46	C	29.6	0.47	C	29.2	-0.4
		WB Approach		***-***	***C***	***31.1***	***-***	***C***	***30.2***	***-***	***C***	***29.8***	***-0.4***
	NYS Route 9D	NB	L	0.00	A	6.7	0.00	A	7.4	0.00	A	7.7	0.3
			TR	0.36	A	9.4	0.44	B	11.3	0.47	B	12.1	0.8
		NB Approach		***-***	***A***	***9.4***	***-***	***B***	***11.3***	***-***	***B***	***12.1***	***0.8***
	NYS Route 9D	SB	L	0.36	A	5.6	0.45	A	6.8	0.48	A	7.4	0.6
			TR	0.25	A	5.7	0.31	A	6.5	0.33	A	6.7	0.2
		SB Approach		***-***	***A***	***5.7***	***-***	***A***	***6.6***	***-***	***A***	***7.0***	***0.4***
		Overall		**-**	**B**	**11.7**	**-**	**B**	**12.7**	**-**	**B**	**13.1**	**0.4**
	<u>With Signal Timing & Cooridnation Modifications</u>												
	City Hall	EB	LTR	-	-	-	-	-	-	0.06	C	31.8	-0.4
		EB Approach		-	-	-	-	-	-	***-***	***C***	***31.8***	***-0.4***
	Main Street	WB	LT	-	-	-	-	-	-	0.14	C	32.4	-0.3
			R	-	-	-	-	-	-	0.48	C	29.2	-0.4
		WB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***C***	***29.8***	***-0.4***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.00	A	7.7	0.3
			TR	-	-	-	-	-	-	0.47	B	12.0	0.7
		NB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***B***	***12.0***	***0.7***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.48	A	7.4	0.6
			TR	-	-	-	-	-	-	0.33	A	6.7	0.2
		SB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***A***	***7.0***	***0.4***
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**B**	**13.1**	**0.4**
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	10.4	0.02	B	10.5	0.1
6	**Beekman Street &**	**Unsignalized**											
	Site Access	EB	LT	-	-	-	-	-	-	0.01	A	8.0	-
		SB	LR	-	-	-	-	-	-	0.21	C	17.7	-
7	**Tompkins Avenue &**	**Unsignalized**											
	Site Access	WB	LT	-	-	-	-	-	-	0.03	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	0.21	C	22.0	0.24	C	23.1	1.1
			R	0.81	C	20.2	0.84	C	23.9	0.85	C	24.9	1.0
		WB Approach		***-***	***B***	***19.9***	***-***	***C***	***23.6***	***-***	***C***	***24.6***	***1.0***
	NYS Route 9D	NB	TR	0.85	B	16.0	0.89	B	19.1	0.90	C	20.5	1.4
		NB Approach		***-***	***B***	***16.0***	***-***	***B***	***19.1***	***-***	***C***	***20.5***	***1.4***
	NYS Route 9D	SB	L	0.75	C	23.4	0.79	C	27.2	0.80	C	28.2	1.0
			T	0.58	A	6.8	0.65	A	7.2	0.66	A	7.2	0.0
		SB Approach		***-***	***B***	***11.0***	***-***	***B***	***11.8***	***-***	***B***	***11.9***	***0.1***
		Overall		**-**	**B**	**14.3**	**-**	**B**	**16.3**	**-**	**B**	**17.0**	**0.7**
2	**NYS Route 9D & Tompkins Avenue/ Ralph Street**	**Unsignalized**											
	Tompkins Avenue	EB	LTR	0.21	D	27.7	0.61	F	63.9	0.73	F	83.2	19.3
	Ralph Street	WB	LTR	0.08	C	21.2	0.13	D	29.2	0.14	D	30.5	1.3
	NYS Route 9D	NB	LTR	0.01	A	9.0	0.03	A	9.7	0.03	A	9.8	0.1
	NYS Route 9D	SB	LTR	0.01	A	8.7	0.01	A	8.9	0.01	A	9.0	0.1
	With Beekman Street Signal Improvements												
	Tompkins Avenue	EB	LTR	-	-	-	-	-	-	0.72	F	81.7	17.8
	Ralph Street	WB	LTR	-	-	-	-	-	-	0.14	D	30.3	1.1
	NYS Route 9D	NB	LTR	-	-	-	-	-	-	0.03	A	9.8	0.1
	NYS Route 9D	SB	LTR	-	-	-	-	-	-	0.01	A	9.0	0.1
	<u>With Signalization</u>												
	Tompkins Avenue	EB	LTR	-	-	-	0.41	D	40.0	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	-	-	-	0.54	A	6.7	0.56	A	7.2	0.5
		SB Approach		***-***	***-***	***-***	***-***	***A***	***6.6***	***-***	***A***	***7.1***	***0.5***
		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	0.54	C	28.0	0.58	C	27.5	-0.5
			R	0.12	C	24.3	0.16	C	23.1	0.22	C	22.4	-0.7
		EB Approach		***-***	***C***	***27.9***	***-***	***C***	***26.9***	***-***	***C***	***26.0***	***-0.9***
	W. Church Street	WB	LTR	0.09	C	24.5	0.11	C	23.4	0.11	C	22.6	-0.8
		WB Approach		***-***	***C***	***24.5***	***-***	***C***	***23.4***	***-***	***C***	***22.6***	***-0.8***
	NYS Route 9D	NB	L	0.11	C	20.6	0.16	C	21.9	0.23	C	23.1	1.2
			TR	0.66	C	25.9	0.77	C	29.3	0.77	C	29.2	-0.1
		NB Approach		***-***	***C***	***25.2***	***-***	***C***	***28.2***	***-***	***C***	***28.0***	***-0.2***
	NYS Route 9D	SB	L	0.01	B	13.4	0.02	B	16.5	0.02	B	17.5	1.0
			TR	1.22	F	140.8	1.39	F	212.4	1.40	F	217.5	5.1
		SB Approach		***-***	***F***	***139.4***	***-***	***F***	***210.2***	***-***	***F***	***215.3***	***5.1***
		Overall		**-**	**F**	**81.0**	**-**	**F**	**114.6**	**-**	**F**	**113.5**	**-1.1**
	<u>With Signal Timing & Phasing Modifications</u>												
	Beekman Street	EB	LT	-	-	-	-	-	-	0.75	D	38.2	10.2
			R	-	-	-	-	-	-	0.28	C	31	7.9
		EB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***D***	***36.1***	***9.2***
	W. Church Street	WB	LTR	-	-	-	-	-	-	0.48	D	46.0	22.6
		WB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***D***	***46.0***	***22.6***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.41	B	16	-5.9
			TR	-	-	-	-	-	-	0.43	B	10.8	-18.5
		NB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***B***	***11.8***	***-16.4***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.02	A	9.1	-7.4
			TR	-	-	-	-	-	-	0.84	C	23.6	-188.8
		SB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***C***	***23.4***	***-186.8***
		Overall		**-**	**-**	**-**	**-**	**-**	**-**	**-**	**C**	**21.4**	**-93.2**

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	25.6	0.03	C	25.3	-0.3
		EB Approach		***-***	***C***	***26.3***	***-***	***C***	***25.6***	***-***	***C***	***25.3***	***-0.3***
	Main Street	WB	LT	0.07	C	26.7	0.09	C	26.0	0.09	C	25.7	-0.3
			R	0.46	C	24.3	0.49	C	23.3	0.49	C	22.9	-0.4
		WB Approach		***-***	***C***	***24.5***	***-***	***C***	***23.6***	***-***	***C***	***23.3***	***-0.3***
	NYS Route 9D	NB	L	0.00	A	7.5	0.00	A	8.3	0.00	A	8.5	0.2
			TR	0.34	B	10.1	0.43	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	0.46	A	7.1	0.48	A	7.5	0.4
			TR	0.24	A	6.2	0.30	A	6.9	0.31	A	7.1	0.2
		SB Approach		***-***	***A***	***6.0***	***-***	***A***	***7.0***	***-***	***A***	***7.3***	***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	31.0	5.4
		EB Approach		-	-	-	-	-	-	***-***	***C***	***31.0***	***5.4***
	Main Street	WB	LT	-	-	-	-	-	-	0.10	C	31.5	5.5
			R	-	-	-	-	-	-	0.53	C	29.0	5.7
		WB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***C***	***29.3***	***5.7***
	NYS Route 9D	NB	L	-	-	-	-	-	-	0.00	A	8.1	-0.2
			TR	-	-	-	-	-	-	0.41	B	11.8	-0.3
		NB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***B***	***11.8***	***-0.3***
	NYS Route 9D	SB	L	-	-	-	-	-	-	0.46	A	7.1	0.0
			TR	-	-	-	-	-	-	0.29	A	6.8	-0.1
		SB Approach		***-***	***-***	***-***	***-***	***-***	***-***	***-***	***A***	***7.0***	***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	10.3	0.01	B	10.4	0.1
6	**Beekman Street &**	**Unsignalized**											
	Site Access	EB	LT	-	-	-	-	-	-	0.01	A	8.0	-
		SB	LR	-	-	-	-	-	-	0.11	B	13.2	-
7	**Tompkins Avenue &**	**Unsignalized**											
	Site Access	WB	LT	-	-	-	-	-	-	0.02	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 No. 2A
Level of Service Summary Table
North Avenue (NYS Route 9D) Arterial - Main Street to Verplanck Avenue

		Existing			No-Build			Build			Build Timing/ Phasing/ Coorindation Improvements			No-Build With Tompkins Avenue Signal			Build With Tompkins Avenue Signal		
Time Period	Direction	Travel Time (s)	Arterial Speed (MPH)	Arterial LOS	Travel Time (s)	Arterial Speed (MPH)	Arterial LOS	Travel Time (s)	Arterial Speed (MPH)	Arterial LOS	Travel Time (s)	Arterial Speed (MPH)	Arterial LOS	Travel Time (s)	Arterial Speed (MPH)	Arterial LOS	Travel Time (s)	Arterial Speed (MPH)	Arterial LOS
Weekday	**NB**	110.1	16.6	D	114.7	15.9	D	116.2	15.7	D	116.4	15.7	D	122.8	14.9	D	124.5	14.7	D
AM Peak Hour	**SB**	79.8	18.8	D	84.7	17.7	D	89.5	16.8	D	98.1	15.3	D	112.4	13.4	C	122.1	12.3	D
Weekday	**NB**	121.1	15.1	D	139.4	13.1	E	147.0	12.4	E	141.1	12.9	E	146.2	12.5	E	152.9	11.9	E
PM Peak Hour	**SB**	88.8	16.9	D	100.7	14.9	D	108.4	13.9	E	106.5	14.1	D	123.1	12.2	D	142.5	10.5	D
Saturday	**NB**	112.1	16.3	D	119.9	15.2	D	123.5	14.8	D	119.3	15.3	D	129.0	14.1	D	127.1	14.4	D
Peak Hour	**SB**	84.4	17.8	D	92.9	16.2	D	97.1	15.5	D	99.7	15.1	D	121.3	12.4	D	123.1	12.2	D

NOTES:

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" FOR A DESCRIPTION OF THE LEVELS OF SERVICE.

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**

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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

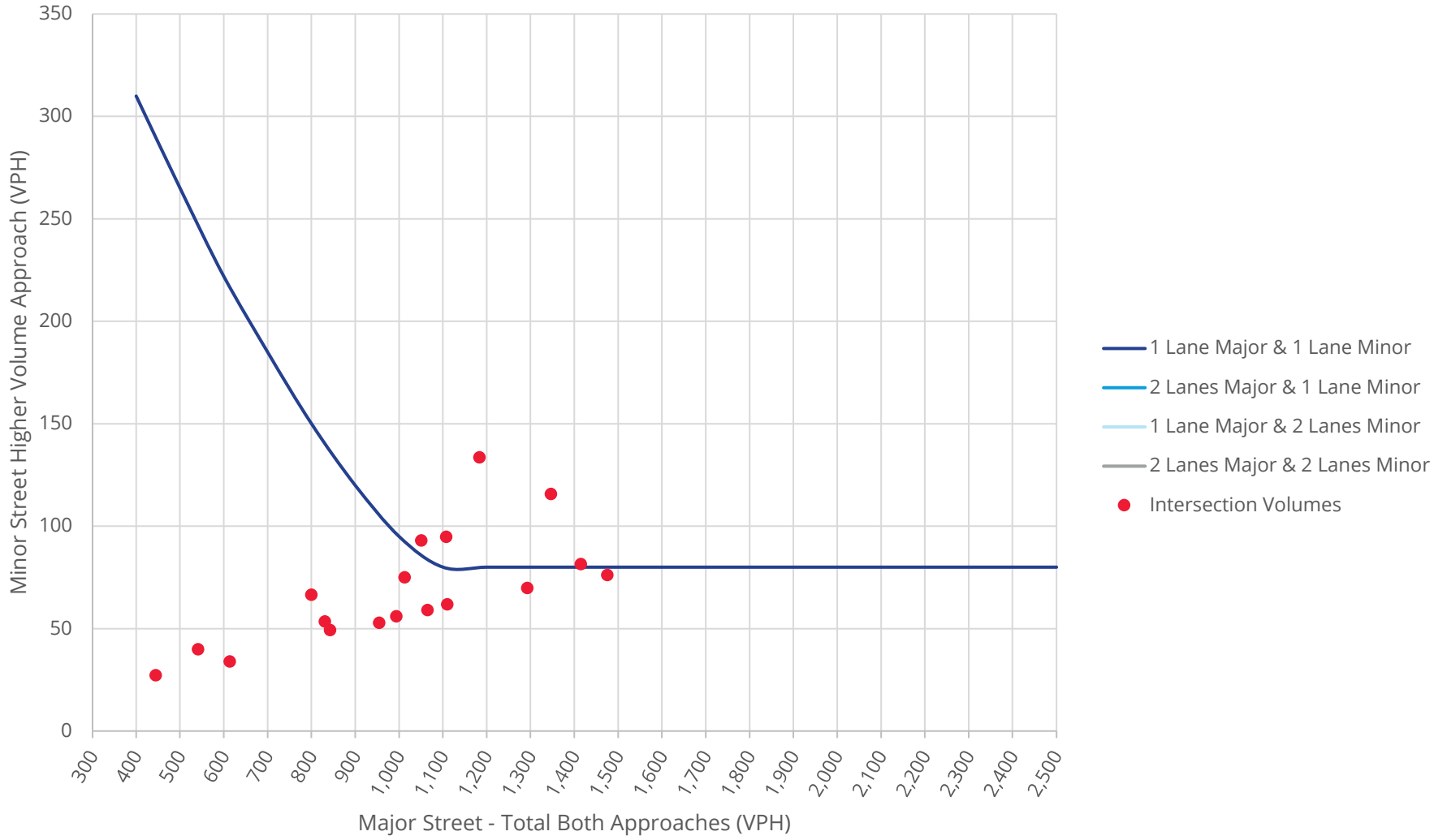


Table TSW-1

Figure 4C-3

Wolcott Avenue (NYS Route 9D) at Tompkins Avenue/Ralph Street

Warrant 3 - Peak Hour Warrant

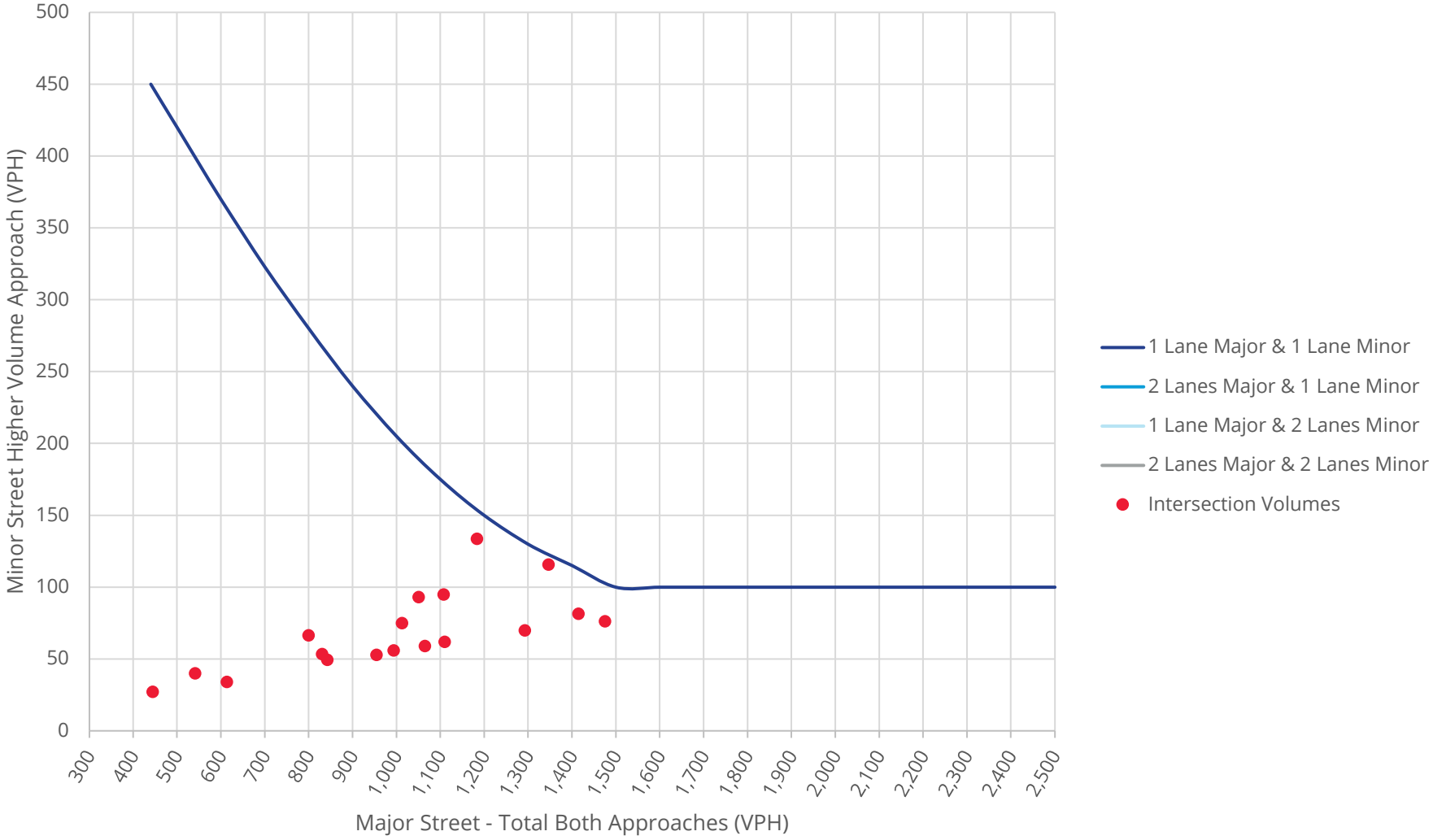


TABLE TSW-2

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.

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

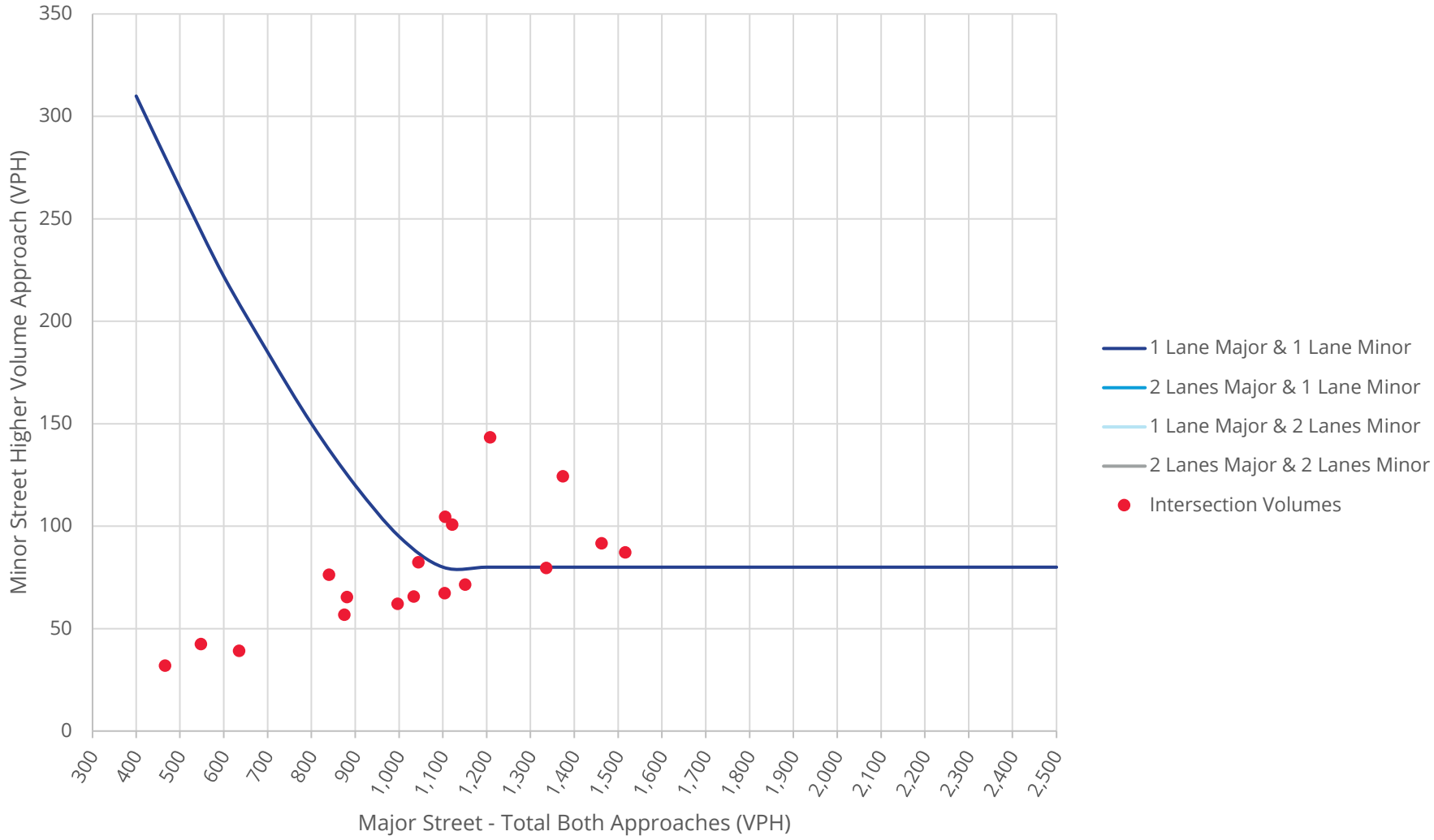


Table TSW-2

Figure 4C-3

Wolcott Avenue (NYS Route 9D) at Tompkins Avenue/Ralph Street

Warrant 3 - Peak Hour Warrant

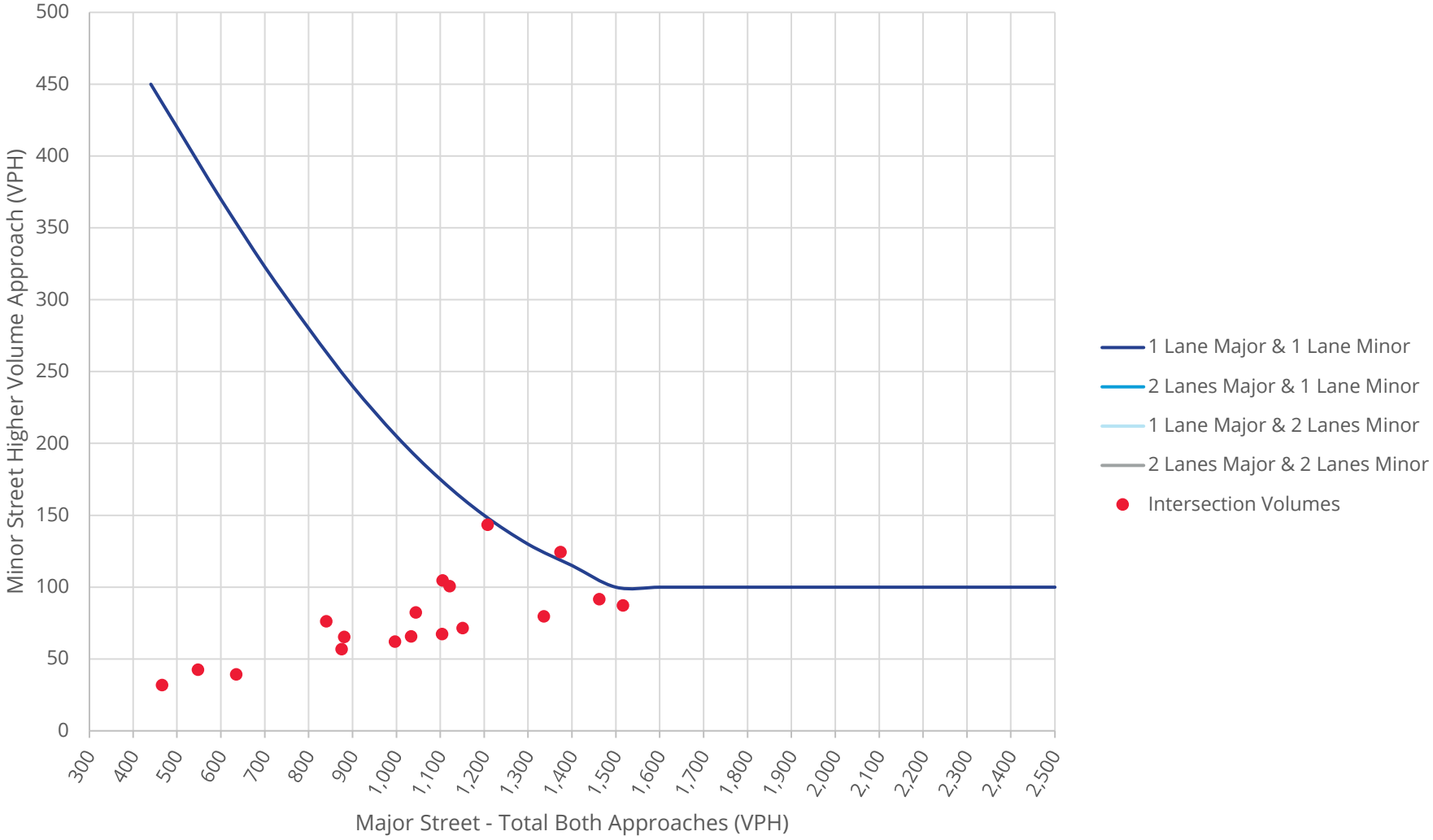


TABLE NO. P-1
SHARED PARKING ANALYSIS
WEEKDAY

		45 Beekman Street				High Street				
Use		**Residential**		**Retail**		**Residential**		**Retail**		
Size		45 Units		10,566 Sq. Ft.		19 Units		4,326 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		45 Spaces		32 Spaces		19 Spaces		13 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%	44	0%	-	97%	19	0%	-	63
1:00 AM	2:00 AM	97%	44	0%	-	97%	19	0%	-	63
2:00 AM	3:00 AM	97%	44	0%	-	97%	19	0%	-	63
3:00 AM	4:00 AM	97%	44	0%	-	97%	19	0%	-	63
4:00 AM	5:00 AM	97%	44	0%	-	97%	19	0%	-	63
5:00 AM	6:00 AM	100%	45	0%	-	100%	19	0%	-	64
6:00 AM	7:00 AM	96%	44	0%	-	96%	19	0%	-	63
7:00 AM	8:00 AM	85%	39	0%	-	85%	17	0%	-	56
8:00 AM	9:00 AM	67%	31	19%	7	67%	13	19%	3	54
9:00 AM	10:00 AM	54%	25	33%	11	54%	11	33%	5	52
10:00 AM	11:00 AM	48%	22	47%	16	48%	10	47%	7	55
11:00 AM	12:00 PM	45%	21	55%	18	45%	9	55%	8	56
12:00 PM	1:00 PM	45%	21	89%	29	45%	9	89%	12	71
1:00 PM	2:00 PM	42%	19	100%	32	42%	8	100%	13	72
2:00 PM	3:00 PM	42%	19	73%	24	42%	8	73%	10	61
3:00 PM	4:00 PM	47%	22	73%	24	47%	9	73%	10	65
4:00 PM	5:00 PM	49%	23	66%	22	49%	10	66%	9	64
5:00 PM	6:00 PM	56%	26	70%	23	56%	11	70%	10	70
6:00 PM	7:00 PM	64%	29	75%	24	64%	13	75%	10	76
7:00 PM	8:00 PM	72%	33	70%	23	72%	14	70%	10	80
8:00 PM	9:00 PM	77%	35	54%	18	77%	15	54%	8	76
9:00 PM	10:00 PM	85%	39	48%	16	85%	17	48%	7	79
10:00 PM	11:00 PM	92%	42	0%	-	92%	18	0%	-	60
11:00 PM	12:00 AM	95%	43	0%	-	95%	19	0%	-	62
								Peak Parking Demand		**80**

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		45 Units		10,566 Sq. Ft.		19 Units		4,326 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		45 Spaces		32 Spaces		19 Spaces		13 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%	42	0%	-	92%	18	0%	-	60
1:00 AM	2:00 AM	92%	42	0%	-	92%	18	0%	-	60
2:00 AM	3:00 AM	92%	42	0%	-	92%	18	0%	-	60
3:00 AM	4:00 AM	92%	42	0%	-	92%	18	0%	-	60
4:00 AM	5:00 AM	92%	42	0%	-	92%	18	0%	-	60
5:00 AM	6:00 AM	100%	45	0%	-	100%	19	0%	-	64
6:00 AM	7:00 AM	99%	45	0%	-	99%	19	0%	-	64
7:00 AM	8:00 AM	97%	44	0%	-	97%	19	0%	-	63
8:00 AM	9:00 AM	92%	42	0%	-	92%	18	0%	-	60
9:00 AM	10:00 AM	83%	38	38%	13	83%	16	38%	5	72
10:00 AM	11:00 AM	79%	36	55%	18	79%	16	55%	8	78
11:00 AM	12:00 PM	71%	32	66%	22	71%	14	66%	9	77
12:00 PM	1:00 PM	68%	31	85%	28	68%	13	85%	12	84
1:00 PM	2:00 PM	65%	30	100%	32	65%	13	100%	13	88
2:00 PM	3:00 PM	62%	28	96%	31	62%	12	96%	13	84
3:00 PM	4:00 PM	66%	30	79%	26	66%	13	79%	11	80
4:00 PM	5:00 PM	66%	30	66%	22	66%	13	66%	9	74
5:00 PM	6:00 PM	67%	31	64%	21	67%	13	64%	9	74
6:00 PM	7:00 PM	70%	32	67%	22	70%	14	67%	9	77
7:00 PM	8:00 PM	78%	36	70%	23	78%	15	70%	10	84
8:00 PM	9:00 PM	77%	35	70%	23	77%	15	70%	10	83
9:00 PM	10:00 PM	80%	36	51%	17	80%	16	51%	7	76
10:00 PM	11:00 PM	82%	37	0%	-	82%	16	0%	-	53
11:00 PM	12:00 AM	88%	40	0%	-	88%	17	0%	-	57
								Peak Parking Demand		**88**

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-1AR
SHARED PARKING ANALYSIS
WEEKDAY (WITH RAIL CREDIT)

		45 Beekman Street				High Street				
Use		**Residential**		**Retail**		**Residential**		**Retail**		
Size		45 Units		10,566 Sq. Ft.		19 Units		4,326 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]		41 Spaces		32 Spaces		18 Spaces		13 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%	40	0%	-	97%	18	0%	-	58
1:00 AM	2:00 AM	97%	40	0%	-	97%	18	0%	-	58
2:00 AM	3:00 AM	97%	40	0%	-	97%	18	0%	-	58
3:00 AM	4:00 AM	97%	40	0%	-	97%	18	0%	-	58
4:00 AM	5:00 AM	97%	40	0%	-	97%	18	0%	-	58
5:00 AM	6:00 AM	100%	41	0%	-	100%	18	0%	-	59
6:00 AM	7:00 AM	96%	40	0%	-	96%	18	0%	-	58
7:00 AM	8:00 AM	85%	35	0%	-	85%	16	0%	-	51
8:00 AM	9:00 AM	67%	28	19%	7	67%	13	19%	3	51
9:00 AM	10:00 AM	54%	23	33%	11	54%	10	33%	5	49
10:00 AM	11:00 AM	48%	20	47%	16	48%	9	47%	7	52
11:00 AM	12:00 PM	45%	19	55%	18	45%	9	55%	8	54
12:00 PM	1:00 PM	45%	19	89%	29	45%	9	89%	12	69
1:00 PM	2:00 PM	42%	18	100%	32	42%	8	100%	13	71
2:00 PM	3:00 PM	42%	18	73%	24	42%	8	73%	10	60
3:00 PM	4:00 PM	47%	20	73%	24	47%	9	73%	10	63
4:00 PM	5:00 PM	49%	21	66%	22	49%	9	66%	9	61
5:00 PM	6:00 PM	56%	23	70%	23	56%	11	70%	10	67
6:00 PM	7:00 PM	64%	27	75%	24	64%	12	75%	10	73
7:00 PM	8:00 PM	72%	30	70%	23	72%	13	70%	10	76
8:00 PM	9:00 PM	77%	32	54%	18	77%	14	54%	8	72
9:00 PM	10:00 PM	85%	35	48%	16	85%	16	48%	7	74
10:00 PM	11:00 PM	92%	38	0%	-	92%	17	0%	-	55
11:00 PM	12:00 AM	95%	39	0%	-	95%	18	0%	-	57
								Peak Parking Demand		**76**

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		45 Units		10,566 Sq. Ft.		19 Units		4,326 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]		41 Spaces		32 Spaces		18 Spaces		13 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%	38	0%	-	92%	17	0%	-	55
1:00 AM	2:00 AM	92%	38	0%	-	92%	17	0%	-	55
2:00 AM	3:00 AM	92%	38	0%	-	92%	17	0%	-	55
3:00 AM	4:00 AM	92%	38	0%	-	92%	17	0%	-	55
4:00 AM	5:00 AM	92%	38	0%	-	92%	17	0%	-	55
5:00 AM	6:00 AM	100%	41	0%	-	100%	18	0%	-	59
6:00 AM	7:00 AM	99%	41	0%	-	99%	18	0%	-	59
7:00 AM	8:00 AM	97%	40	0%	-	97%	18	0%	-	58
8:00 AM	9:00 AM	92%	38	0%	-	92%	17	0%	-	55
9:00 AM	10:00 AM	83%	35	38%	13	83%	15	38%	5	68
10:00 AM	11:00 AM	79%	33	55%	18	79%	15	55%	8	74
11:00 AM	12:00 PM	71%	30	66%	22	71%	13	66%	9	74
12:00 PM	1:00 PM	68%	28	85%	28	68%	13	85%	12	81
1:00 PM	2:00 PM	65%	27	100%	32	65%	12	100%	13	84
2:00 PM	3:00 PM	62%	26	96%	31	62%	12	96%	13	82
3:00 PM	4:00 PM	66%	28	79%	26	66%	12	79%	11	77
4:00 PM	5:00 PM	66%	28	66%	22	66%	12	66%	9	71
5:00 PM	6:00 PM	67%	28	64%	21	67%	13	64%	9	71
6:00 PM	7:00 PM	70%	29	67%	22	70%	13	67%	9	73
7:00 PM	8:00 PM	78%	32	70%	23	78%	15	70%	10	80
8:00 PM	9:00 PM	77%	32	70%	23	77%	14	70%	10	79
9:00 PM	10:00 PM	80%	33	51%	17	80%	15	51%	7	72
10:00 PM	11:00 PM	82%	34	0%	-	82%	15	0%	-	49
11:00 PM	12:00 AM	88%	37	0%	-	88%	16	0%	-	53
								Peak Parking Demand		**84**

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 A-1

ACCIDENT DATA SUMMARY
BEEKMAN STREET BETWEEN W. MAIN STREET & NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE)
NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE) BETWEEN MAIN STREET AND VERPLANCK AVENUE
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK
STUDY PERIOD: JANUARY 1, 2018 THROUGH JULY 31, 2023

On Street	Location	Mile Marker	Date	Time	Traffic Control	Accident Class	Vehicles-Injuries	Light Condition	Road Condition	Weather	Manner of Collision	Apparent Contributing Factors
BEEKMAN STREET SOUTHWEST OF W MAIN STREET												
BEEKMAN ST	40FT SOUTH OF W MAIN ST	---	11/15/2018	7:17 PM	NO PASSING ZONE	PDO	2-0	DARK-ROAD LIGHTED	SNOW/ICE	SNOW	PARKED VEHICLE	V1:(PASSING OR LANE USAGE IMPROPERLY,PAVEMENT SLIPPERY) / V2:(NOT APPLICABLE,NOT APPLICABLE)
BEEKMAN STREET AT INTERSECTION OF W MAIN STREET												
BEEKMAN ST	AT THE INTERSECTION OF W MAIN ST	---	8/20/2018	7:39 PM	STOP SIGN	PDO	2-0	DAYLIGHT	DRY	CLEAR	RIGHT ANGLE	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
BEEKMAN ST	AT THE INTERSECTION OF W MAIN ST	---	9/15/2018	2:44 PM	NO PASSING ZONE	PDO	1-0	DAYLIGHT	DRY	CLEAR	OBJECT IN ROADWAY	V1:(TURNING IMPROPER,NOT APPLICABLE)
W MAIN ST	AT THE INTERSECTION OF BEEKMAN ST	---	11/15/2018	7:05 PM	NONE	PDO	4-0	DARK-ROAD LIGHTED	SNOW/ICE	SNOW	REAR END	V1:(PAVEMENT SLIPPERY,NOT APPLICABLE) / V2:(PAVEMENT SLIPPERY,NOT APPLICABLE) / V3:(PAVEMENT SLIPPERY,NOT APPLICABLE) / V4:(NOT APPLICABLE,NOT APPLICABLE)
BEEKMAN ST	AT THE INTERSECTION OF W MAIN ST	---	1/15/2019	12:15 AM	NO PASSING ZONE	PDO	1-0	DARK-ROAD LIGHTED	DRY	CLEAR	ANIMAL	V1:(ANIMALS ACTION,NOT APPLICABLE)
W MAIN ST	AT THE INTERSECTION OF BEEKMAN ST	---	2/1/2019	3:32 PM	STOP SIGN	I	2-1	DAYLIGHT	DRY	CLEAR	REAR END	V1:(NOT APPLICABLE,NOT APPLICABLE) / V2:(FOLLOWING TOO CLOSELY,NOT APPLICABLE)
NYS ROUTE 9D (NORTH AVENUE/WOLCOTT AVENUE) SOUTH OF MAIN STREET												
BEACON ST	AT THE INTERSECTION OF WOLCOTT AVE	9D82032024	3/29/2021	2:38 PM	STOP SIGN	PDO	2-0	DAYLIGHT	DRY	CLEAR	OVERTAKING	V1:(DRIVER INATTENTION,FOLLOWING TOO CLOSELY) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NYS ROUTE 9D (NORTH AVENUE/WOLCOTT AVENUE) AT INTERSECTION OF MAIN STREET												
ROUTE 9D	AT THE INTERSECTION OF MAIN ST	9D82032026	3/7/2018	2:24 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	SNOW/ICE	SNOW	RIGHT ANGLE	V1:(NOT APPLICABLE,NOT APPLICABLE) / V2:(PAVEMENT SLIPPERY,TURNING IMPROPER)
MAIN ST	AT THE INTERSECTION OF ROUTE 9D	---	7/7/2018	8:13 PM	NO PASSING ZONE	PDO	2-0	DUSK	DRY	CLEAR	OVERTAKING	V1:(OVERSIZED VEHICLE,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
ROUTE 9D	AT THE INTERSECTION OF MAIN ST	9D82032026	4/12/2019	1:35 PM	TRAFFIC SIGNAL	I	2-2	DAYLIGHT	DRY	CLOUDY	RIGHT ANGLE	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
MAIN ST	AT THE INTERSECTION OF WOLCOTT AVE	9D82032025	4/23/2019	4:29 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
MAIN ST	AT THE INTERSECTION OF NORTH AVE	9D82032026	9/17/2019	8:30 PM	TRAFFIC SIGNAL	PDO	2-0	DARK-ROAD LIGHTED	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
ROUTE 9D	AT THE INTERSECTION OF MAIN ST	9D82032026	10/29/2019	12:50 PM	TRAFFIC SIGNAL	I	2-2	DAYLIGHT	DRY	CLEAR	REAR END	V1:(DRIVER INATTENTION,UNKNOWN) / V2:(NOT APPLICABLE,NOT APPLICABLE)
WOLCOTT AVE	AT THE INTERSECTION OF MAIN ST	9D82032025	12/23/2019	4:00 PM	TRAFFIC SIGNAL	I	1-3	DAYLIGHT	DRY	CLEAR	PEDESTRIAN	V1:(UNSAFE SPEED,FAILURE TO YIELD RIGHT OF WAY)
ROUTE 9D	AT THE INTERSECTION OF MAIN ST	9D82032026	9/2/2020	5:05 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	WET	CLOUDY	LEFT TURN (WITH OTHER CAR)	V1:(FAILURE TO YIELD RIGHT OF WAY,PASSING OR LANE USAGE IMPROPERLY) / V2:(NOT APPLICABLE,NOT APPLICABLE)
WOLCOTT AVE	AT THE INTERSECTION OF MAIN ST	9D82032025	11/3/2020	12:00 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,UNKNOWN) / V2:(NOT APPLICABLE,NOT APPLICABLE)
MAIN ST	AT THE INTERSECTION OF NORTH AVE	9D82032026	12/18/2020	9:59 PM	TRAFFIC SIGNAL	PDO	2-0	DARK-ROAD LIGHTED	WET	CLEAR	REAR END	V1:(DRIVER INATTENTION,FOLLOWING TOO CLOSELY) / V2:(NOT APPLICABLE,NOT APPLICABLE)
MAIN ST	AT THE INTERSECTION OF WOLCOTT AVE	9D82032025	3/12/2021	1:46 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	LEFT TURN (AGAINST OTHER CAR)	V1:(NOT APPLICABLE,NOT APPLICABLE) / V2:(PASSING OR LANE USAGE IMPROPERLY,NOT APPLICABLE)
MAIN ST	AT THE INTERSECTION OF ROUTE 9D	---	5/23/2021	10:47 AM	NONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)

TABLE A-1

ACCIDENT DATA SUMMARY
BEEKMAN STREET BETWEEN W. MAIN STREET & NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE)
NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE) BETWEEN MAIN STREET AND VERPLANCK AVENUE
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK
STUDY PERIOD: JANUARY 1, 2018 THROUGH JULY 31, 2023

On Street	Location	Mile Marker	Date	Time	Traffic Control	Accident Class	Vehicles-Injuries	Light Condition	Road Condition	Weather	Manner of Collision	Apparent Contributing Factors
MAIN ST	AT THE INTERSECTION OF ROUTE 9D	---	8/14/2021	10:32 AM	NONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	OVERTAKING	V1:(PASSING OR LANE USAGE IMPROPERLY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
ROUTE 9D	AT THE INTERSECTION OF MAIN ST	9D82032026	3/10/2022	2:50 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(DRIVER INATTENTION,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
WOLCOTT AVE	AT THE INTERSECTION OF MAIN ST	9D82032025	7/3/2022	9:54 PM	TRAFFIC SIGNAL	I	2-1	DARK-ROAD LIGHTED	DRY	CLEAR	LEFT TURN (AGAINST OTHER CAR)	V1:(FAILURE TO YIELD RIGHT OF WAY,UNKNOWN) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF MAIN ST	9D82032025	7/26/2022	4:06 PM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	OVERTAKING	V1:(TURNING IMPROPER,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
WOLCOTT AVE	AT THE INTERSECTION OF MAIN ST	9D82032025	10/24/2022	10:40 AM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	WET	CLOUDY	LEFT TURN (WITH OTHER CAR)	V1:(TURNING IMPROPER,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NYS ROUTE 9D (NORTH AVENUE/WOLCOTT AVENUE) BETWEEN MAIN STREET & BEEKMAN STREET/CHURCH STREET												
WOLCOTT AVE	20FT NORTH OF MAIN ST	9D82032025	4/14/2018	12:00 AM	NONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	PARKING	V1:(NOT ENTERED,NOT ENTERED) / V2:(NOT ENTERED,NOT ENTERED)
NYS ROUTE 9D (NORTH AVENUE/WOLCOTT AVENUE) AT INTERSECTION OF BEEKMAN STREET/CHURCH STREET												
NORTH AVE	AT THE INTERSECTION OF BEEKMAN ST	9D82032026	1/28/2018	6:44 PM	TRAFFIC SIGNAL	PDO	2-0	DUSK	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
BEEKMAN ST	AT THE INTERSECTION OF ROUTE 9D	---	5/23/2018	4:20 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	OVERTAKING	V1:(PASSING OR LANE USAGE IMPROPERLY,NOT APPLICABLE) / V2:(PASSING OR LANE USAGE IMPROPERLY,NOT APPLICABLE)
ROUTE 9D	AT THE INTERSECTION OF BEEKMAN ST	9D82032026	11/12/2018	9:05 AM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(OTHER (VEHICLE),NOT APPLICABLE)
ROUTE 9D	AT THE INTERSECTION OF BEEKMAN ST	9D82032026	11/15/2018	4:42 PM	NO PASSING ZONE	PDO	2-0	DARK-ROAD LIGHTED	SNOW/ICE	SNOW	REAR END	V1:(PAVEMENT SLIPPERY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
ROUTE 9D	AT THE INTERSECTION OF BEEKMAN ST	9D82032026	9/20/2019	5:02 PM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	OVERTAKING	V1:(PASSING OR LANE USAGE IMPROPERLY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF BEEKMAN ST	9D82032026	3/15/2021	10:04 AM	STOP SIGN	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(DRIVER INATTENTION,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF BEEKMAN ST	9D82032026	4/4/2021	1:16 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	RIGHT ANGLE	V1:(TRAFFIC CONTROL DEVICES DISREGARDED,CELL PHONE (HAND HELD)) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF W CHURCH ST	9D82032026	4/12/2021	4:29 PM	TRAFFIC SIGNAL	I	1-1	DAYLIGHT	WET	RAIN	BICYCLIST	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE)
ROUTE 9D	AT THE INTERSECTION OF BEEKMAN ST	9D82032026	5/28/2021	4:15 PM	NONE	PDO	2-0	DAYLIGHT	WET	RAIN	RIGHT ANGLE	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF BEEKMAN ST	9D82032026	4/8/2022	8:30 AM	TRAFFIC SIGNAL	PDO	3-0	DAYLIGHT	WET	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE) / V3:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF W CHURCH ST	9D82032026	9/23/2022	10:15 PM	TRAFFIC SIGNAL	I	2-1	DARK-ROAD LIGHTED	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
BEEKMAN ST	AT THE INTERSECTION OF NORTH AVE	9D82032026	6/8/2023	5:30 PM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLOUDY	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)

TABLE A-1

ACCIDENT DATA SUMMARY
BEEKMAN STREET BETWEEN W. MAIN STREET & NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE)
NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE) BETWEEN MAIN STREET AND VERPLANCK AVENUE
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK
STUDY PERIOD: JANUARY 1, 2018 THROUGH JULY 31, 2023

On Street	Location	Mile Marker	Date	Time	Traffic Control	Accident Class	Vehicles-Injuries	Light Condition	Road Condition	Weather	Manner of Collision	Apparent Contributing Factors
NYS ROUTE 9D (NORTH AVENUE/WOLCOTT AVENUE) BETWEEN BEEKMAN STREET/CHURCH STREET AND TOMPKINS AVENUE/RALPH STREET												
ROUTE 9D	100FT NORTH OF BEEKMAN ST	9D82032026	3/6/2018	7:40 AM	NO PASSING ZONE	PDO	1-0	DAYLIGHT	DRY	CLEAR	ANIMAL	V1:(ANIMALS ACTION,NOT APPLICABLE)
NORTH AVE	20FT SOUTH OF TOMPKINS TER	9D82032027	3/1/2019	6:24 AM	NO PASSING ZONE	PDO	1-0	DAWN	SNOW/ICE	SNOW	RUN OFF ROAD	V1:(UNSAFE SPEED,PAVEMENT SLIPPERY)
NORTH AVE	100FT NORTH OF W CHURCH ST	9D82032026	11/15/2019	3:29 AM	NO PASSING ZONE	PDO	1-0	DARK-ROAD UNLIGHTED	DRY	CLEAR	ANIMAL	V1:(ANIMALS ACTION,NOT APPLICABLE)
NORTH AVE	5FT NORTH OF W CHURCH ST	9D82032026	5/18/2022	4:40 PM	TRAFFIC SIGNAL	PDO	3-0	DAYLIGHT	DRY	CLOUDY	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V3:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	20FT SOUTH OF TOMPKINS AVE	9D82032026	7/4/2022	1:21 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT ENTERED) / V2:(NOT ENTERED,NOT ENTERED)
NORTH AVE	100FT NORTH OF BEEKMAN ST	9D82032026	8/28/2022	11:28 AM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLOUDY	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	100FT SOUTH OF RALPH ST	9D82032026	7/22/2023	3:40 PM	NONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NYS ROUTE 9D (NORTH AVENUE/WOLCOTT AVENUE) AT INTERSECTION OF TOMPKINS AVENUE/RALPH STREET												
ROUTE 9D	AT THE INTERSECTION OF TOMPKINS AVE	---	7/18/2018	12:22 PM	STOP SIGN	PDO	2-0	DAYLIGHT	DRY	CLEAR	RIGHT ANGLE	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF RALPH ST	9D82032027	9/14/2018	6:04 PM	STOP SIGN	PDO	2-0	DAYLIGHT	DRY	CLEAR	RIGHT ANGLE	V1:(REACTION TO OTHER UNINVOLVED VEHICL,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF RALPH ST	9D82032027	1/3/2019	11:33 AM	STOP SIGN	I	2-1	DAYLIGHT	DRY	CLEAR	RIGHT ANGLE	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF RALPH ST	9D82032027	5/10/2019	3:29 PM	NONE	PDO	2-0	DAYLIGHT	DRY	CLOUDY	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF RALPH ST	9D82032027	2/2/2020	1:11 PM	STOP SIGN	PDO	2-0	DAYLIGHT	DRY	CLEAR	RIGHT ANGLE	V1:(FAILURE TO YIELD RIGHT OF WAY,DRIVER INATTENTION) / V2:(NOT APPLICABLE,NOT APPLICABLE)
ROUTE 9D	AT THE INTERSECTION OF TOMPKINS AVE	9D82032027	5/4/2021	4:46 PM	STOP SIGN	I	2-2	DAYLIGHT	DRY	CLEAR	RIGHT ANGLE	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF RALPH ST	9D82032027	7/21/2021	12:48 PM	STOP SIGN	I	2-1	DAYLIGHT	DRY	CLOUDY	LEFT TURN (AGAINST OTHER CAR)	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF TOMPKINS TER	9D82032027	11/26/2021	10:20 AM	NONE	PDO	2-0	DAYLIGHT	WET	RAIN	REAR END	V1:(PAVEMENT SLIPPERY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
TOMPKINS AVE	AT THE INTERSECTION OF NORTH AVE	9D82032027	10/24/2022	9:12 AM	STOP SIGN	PDO	2-0	DAYLIGHT	WET	CLOUDY	RIGHT ANGLE	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
TOMPKINS AVE	AT THE INTERSECTION OF RALPH ST	9D82032027	12/12/2022	4:03 PM	NONE	PDO	2-0	DAYLIGHT	WET	CLEAR	RIGHT ANGLE	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT ENTERED) / V2:(NOT ENTERED,NOT ENTERED)
NORTH AVE	AT THE INTERSECTION OF RALPH ST	9D82032027	4/21/2023	5:19 PM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,FATIGUED/DROWSY) / V2:(NOT APPLICABLE,NOT APPLICABLE)
TOMPKINS AVE	AT THE INTERSECTION OF RALPH ST	9D82032027	7/21/2023	5:09 PM	STOP SIGN	PDO	2-0	DAYLIGHT	DRY	CLEAR	RIGHT ANGLE	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)

TABLE A-1

ACCIDENT DATA SUMMARY
BEEKMAN STREET BETWEEN W. MAIN STREET & NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE)
NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE) BETWEEN MAIN STREET AND VERPLANCK AVENUE
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK
STUDY PERIOD: JANUARY 1, 2018 THROUGH JULY 31, 2023

On Street	Location	Mile Marker	Date	Time	Traffic Control	Accident Class	Vehicles-Injuries	Light Condition	Road Condition	Weather	Manner of Collision	Apparent Contributing Factors
NYS ROUTE 9D (NORTH AVENUE/WOLCOTT AVENUE) BETWEEN TOMPKINS AVENUE/RALPH STREET AND VERPLANCK AVENUE												
NORTH AVE	AT THE INTERSECTION OF LAFAYETTE AVE	9D82032028	2/7/2018	12:22 PM	NO PASSING ZONE	PDO	1-0	DAYLIGHT	SNOW/ICE	SLEET/HAIL/ FREEZING RAIN	RUN OFF ROAD	V1:(PAVEMENT SLIPPERY,NOT APPLICABLE)
ROUTE 9D	15FT NORTH OF RALPH ST	9D82032027	8/28/2018	6:06 PM	NONE	PDO	1-0	DAYLIGHT	DRY	CLEAR	RUN OFF ROAD	V1:(DRIVER INATTENTION,EATING OR DRINKING)
NORTH AVE	AT THE INTERSECTION OF MACKIN AVE	9D82032027	12/17/2018	4:20 PM	NO PASSING ZONE	I	2-2	DUSK	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
LAFAYETTE AVE	AT THE INTERSECTION OF NORTH AVE	9D82032028	6/29/2019	1:50 PM	STOP SIGN	I	2-2	DAYLIGHT	DRY	CLEAR	HEAD ON	V1:(DRIVER INEXPERIENCE,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH RD	200FT SOUTH OF VERPLANCK AVE	---	8/12/2019	3:40 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(NOT APPLICABLE,NOT APPLICABLE) / V2:(FOLLOWING TOO CLOSELY,NOT APPLICABLE)
NORTH AVE	46FT SOUTH OF VERPLANCK AVE	9D82032028	4/28/2020	4:15 PM	NONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	OVERTAKING	V1:(DRIVER INATTENTION,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF LAFAYETTE AVE	9D82032028	8/20/2020	7:04 PM	STOP SIGN	PDO	1-0	DAYLIGHT	DRY	CLEAR	BICYCLIST	
NORTH AVE	200FT NORTH OF LAFAYETTE AVE	9D82032028	6/30/2021	6:47 AM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	OVERTAKING	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(PASSING OR LANE USAGE IMPROPERLY,NOT APPLICABLE)
NORTH AVE	50FT NORTH OF TOMPKINS AVE	9D82032027	11/11/2021	12:16 PM	NO PASSING ZONE	PDO	1-0	DAYLIGHT	DRY	CLEAR	ANIMAL	V1:(ANIMALS ACTION,NOT APPLICABLE)
NORTH AVE	50FT SOUTH OF VERPLANCK AVE	9D82032028	7/4/2022	11:38 AM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	50FT SOUTH OF LAFAYETTE AVE	9D82032028	10/29/2022	11:50 AM	NO PASSING	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(DRIVER INATTENTION,FOLLOWING TOO CLOSELY) /
NYS ROUTE 9D (NORTH AVENUE/WOLCOTT AVENUE) AT INTERSECTION OF VERPLANCK AVENUE												
NORTH AVE	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	1/5/2018	3:43 PM	TRAFFIC SIGNAL	I	2-2	DAYLIGHT	SNOW/ICE	CLEAR	RIGHT ANGLE	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	1/20/2018	12:19 AM	TRAFFIC SIGNAL	I	2-1	DARK-ROAD LIGHTED	DRY	CLEAR	RIGHT ANGLE	V1:(NOT APPLICABLE,NOT APPLICABLE) / V2:(ALCOHOL INVOLVEMENT,FAILURE TO YIELD RIGHT OF WAY)
NORTH AVE	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	8/3/2018	9:21 AM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
VERPLANCK AVE	AT THE INTERSECTION OF NORTH AVE	9D82032028	9/27/2018	3:05 PM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLOUDY	REAR END	V1:(BACKING UNSAFELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	1/5/2019	7:17 AM	TRAFFIC SIGNAL	I	2-3	DAWN	WET	RAIN	LEFT TURN (AGAINST OTHER CAR)	V1:(NOT APPLICABLE,NOT APPLICABLE) / V2:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE)
VERPLANCK AVE	AT THE INTERSECTION OF NORTH AVE	9D82032028	1/15/2019	2:31 PM	TRAFFIC SIGNAL	PDO	3-0	DAYLIGHT	DRY	CLEAR	LEFT TURN (AGAINST OTHER CAR)	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE) / V3:(UNKNOWN,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	2/6/2019	7:00 AM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(NOT APPLICABLE,NOT APPLICABLE) / V2:(FOLLOWING TOO CLOSELY,NOT APPLICABLE)
ROUTE 9D	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	5/11/2019	8:30 AM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	6/18/2019	2:10 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	WET	RAIN	REAR END	V1:(DRIVER INATTENTION,UNKNOWN) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	8/13/2019	9:26 AM	TRAFFIC SIGNAL	I	3-1	DAYLIGHT	DRY	CLOUDY	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT ENTERED) / V2:(NOT ENTERED,NOT ENTERED) / V3:(NOT ENTERED,NOT ENTERED)

TABLE A-1

ACCIDENT DATA SUMMARY
BEEKMAN STREET BETWEEN W. MAIN STREET & NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE)
NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE) BETWEEN MAIN STREET AND VERPLANCK AVENUE
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK
STUDY PERIOD: JANUARY 1, 2018 THROUGH JULY 31, 2023

On Street	Location	Mile Marker	Date	Time	Traffic Control	Accident Class	Vehicles-Injuries	Light Condition	Road Condition	Weather	Manner of Collision	Apparent Contributing Factors
NORTH AVE	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	10/15/2019	12:09 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	12/29/2020	4:16 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(GLARE,FOLLOWING TOO CLOSELY) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	4/26/2021	5:20 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	RIGHT ANGLE	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(UNKNOWN,UNKNOWN)
VERPLANCK AVE	AT THE INTERSECTION OF NORTH AVE	9D82032028	9/20/2021	1:41 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	RIGHT ANGLE	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
VERPLANCK AVE	AT THE INTERSECTION OF NORTH AVE	9D82032028	9/30/2021	7:42 AM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(DRIVER INATTENTION,FOLLOWING TOO CLOSELY) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	5/21/2022	3:20 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	OVERTAKING	V1:(FAILURE TO YIELD RIGHT OF WAY,UNSAFE LANE CHANGE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	5/27/2022	7:44 AM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLOUDY	REAR END	V1:(DRIVER INATTENTION,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	6/24/2022	1:07 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(FELL ASLEEP,FOLLOWING TOO CLOSELY) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	8/18/2022	9:47 PM	TRAFFIC SIGNAL	PDO	2-0	DARK-ROAD LIGHTED	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,UNKNOWN) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	11/3/2022	9:27 PM	TRAFFIC SIGNAL	PDO	2-0	DARK-ROAD LIGHTED	DRY	CLEAR	SIDESWIPE	V1:(TURNING IMPROPER,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	3/20/2023	5:21 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	AT THE INTERSECTION OF VERPLANCK AVE	9D82032028	5/22/2023	4:02 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(PASSENGER DISTRACTION,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
MISCELLANEOUS CRASH LOCATIONS												
TOMPKINS HOSE FIRE HOUSE	PARKING LOT	9D82032025	2/5/2018	8:00 PM	NONE	PDO	1-0	DARK-ROAD LIGHTED	DRY	CLEAR	PARKING	V1:(BACKING UNSAFELY,NOT APPLICABLE)
MAIN ST	10FT WEST OF NORTH AVE	9D82032026	8/14/2018	4:44 PM	TRAFFIC SIGNAL	PDO	2-0	DAYLIGHT	DRY	CLEAR	REAR END	V1:(FOLLOWING TOO CLOSELY,UNKNOWN) / V2:(NOT APPLICABLE,NOT APPLICABLE)
1158 NORTH AVE DRIVEWAY	15FT EAST OF MAIN ST	9D82032026	9/8/2018	4:04 PM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	RIGHT ANGLE	V1:(FAILURE TO YIELD RIGHT OF WAY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
MAIN ST	250FT EAST OF NORTH AVE	9D82032026	10/8/2018	4:23 PM	NO PASSING ZONE	PDO	2-0	DAYLIGHT	DRY	CLOUDY	PARKING	V1:(BACKING UNSAFELY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
NORTH AVE	150FT EAST OF MAIN ST	9D82032026	2/22/2021	4:15 PM	NONE	PDO	2-0	DAYLIGHT	SLUSH	SNOW	PARKING	V1:(PAVEMENT SLIPPERY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
1 MUNICIPAL PLZ	PARKING LOT	---	5/16/2022	3:39 PM	NONE	PDO	2-0	DAYLIGHT	DRY	CLOUDY	PARKING	V1:(PASSING OR LANE USAGE IMPROPERLY,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)
1 MUNICIPAL PLZ	PARKING LOT	9D82032025	5/18/2022	4:05 PM	NONE	PDO	2-0	DAYLIGHT	DRY	CLEAR	PARKING	V1:(BRAKES DEFECTIVE,NOT APPLICABLE) / V2:(NOT APPLICABLE,NOT APPLICABLE)

Colliers Engineering & Design

TABLE A-2

CRASH DATA SUMMARY
BEEKMAN STREET BETWEEN W. MAIN STREET & NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE)
NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE) BETWEEN MAIN STREET AND VERPLANCK AVENUE
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK
STUDY PERIOD: JANUARY 1, 2017 THROUGH JULY 31, 2023

SUMMARY BY INTERSECTION

BEEKMAN STREET AT INTERSECTION OF W MAIN STREET

Crashes by Year	
Year	Crashes
2018	3
2019	2
2020	-
2021	-
2022	-
2023	-
Total Crashes	5

Accident Class Summary	
Accident Class	Crashes
N/R	-
PDO	4
I	1
PDO & I	-
F	-
Total Crashes	5

Light Condition Summary	
Light Condition	Crashes
UNKNOWN	-
NOT ENTERED	-
DAYLIGHT	3
DAWN	-
DUSK	-
DARK-ROAD LIGHTED	2
DARK-ROAD UNLIGHTED	-
Total Crashes	5

Road Condition Summary	
Road Condition	Crashes
UNKNOWN	-
NOT ENTERED	-
DRY	4
WET	-
MUDDY	-
SNOW/ICE	1
SLUSH	-
FLOODED	-
OTHER	-
Total Crashes	5

Weather Summary	
Weather Condition	Crashes
UNKNOWN	-
NOT ENTERED	-
CLEAR	4
CLOUDY	-
RAIN	-
SNOW	1
SLEET/HAIL/FREEZING RAIN	-
FOG/SMOG/SMOKE	-
OTHER	-
Total Crashes	5

Collision Type Summary	
Collision Type	Crashes
PEDESTRIAN	-
ANIMAL	1
REAR END	2
RIGHT ANGLE	1
LEFT TURN (AGAINST OTHER CAR)	-
LEFT TURN (WITH OTHER CAR)	-
RIGHT TURN (AGAINST OTHER CAR)	-
RIGHT TURN (WITH OTHER CAR)	-
OVERTAKING	-
SIDESWIPE	-
HEAD ON	-
OBJECT IN ROADWAY	1
Total Crashes	5

NYS ROUTE 9D (NORTH AVENUE/WOLCOTT AVENUE) AT INTERSECTION OF MAIN STREET

Crashes by Year	
Year	Crashes
2017	-
2018	2
2019	5
2020	3
2021	3
2022	4
2023	-
Total Crashes	17

Accident Class Summary	
Accident Class	Crashes
N/R	-
PDO	13
I	4
PDO & I	-
F	-
Total Crashes	17

Light Condition Summary	
Light Condition	Crashes
UNKNOWN	-
NOT ENTERED	-
DAYLIGHT	13
DAWN	-
DUSK	1
DARK-ROAD LIGHTED	3
DARK-ROAD UNLIGHTED	-
Total Crashes	17

Road Condition Summary	
Road Condition	Crashes
UNKNOWN	-
NOT ENTERED	-
DRY	13
WET	3
MUDDY	-
SNOW/ICE	1
SLUSH	-
FLOODED	-
OTHER	-
Total Crashes	17

Weather Summary	
Weather Condition	Crashes
UNKNOWN	-
NOT ENTERED	-
CLEAR	13
CLOUDY	3
RAIN	-
SNOW	1
SLEET/HAIL/FREEZING RAIN	-
FOG/SMOG/SMOKE	-
OTHER	-
Total Crashes	17

Collision Type Summary	
Collision Type	Crashes
PEDESTRIAN	1
ANIMAL	-
REAR END	7
RIGHT ANGLE	2
LEFT TURN (AGAINST OTHER CAR)	2
LEFT TURN (WITH OTHER CAR)	2
RIGHT TURN (AGAINST OTHER CAR)	-
RIGHT TURN (WITH OTHER CAR)	-
OVERTAKING	3
SIDESWIPE	-
HEAD ON	-
OBJECT IN ROADWAY	-
Total Crashes	17

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TABLE A-2

CRASH DATA SUMMARY
BEEKMAN STREET BETWEEN W. MAIN STREET & NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE)
NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE) BETWEEN MAIN STREET AND VERPLANCK AVENUE
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK
STUDY PERIOD: JANUARY 1, 2017 THROUGH JULY 31, 2023

SUMMARY BY INTERSECTION

NYS ROUTE 9D (NORTH AVENUE/WOLCOTT AVENUE) AT INTERSECTION OF BEEKMAN STREET/CHURCH STREET

Crashes by Year	
Year	Crashes
2018	4
2019	1
2020	-
2021	4
2022	2
2023	1
Total Crashes	12

Accident Class Summary	
Accident Class	Crashes
N/R	-
PDO	10
I	2
PDO & I	-
F	-
Total Crashes	12

Light Condition Summary	
Light Condition	Crashes
UNKNOWN	-
NOT ENTERED	-
DAYLIGHT	9
DAWN	-
DUSK	1
DARK-ROAD LIGHTED	2
DARK-ROAD UNLIGHTED	-
Total Crashes	12

Road Condition Summary	
Road Condition	Crashes
UNKNOWN	-
NOT ENTERED	-
DRY	8
WET	3
MUDDY	-
SNOW/ICE	1
SLUSH	-
FLOODED	-
OTHER	-
Total Crashes	12

Weather Summary	
Weather Condition	Crashes
UNKNOWN	-
NOT ENTERED	-
CLEAR	8
CLOUDY	1
RAIN	2
SNOW	1
SLEET/HAIL/FREEZING RAIN	-
FOG/SMOG/SMOKE	-
OTHER	-
Total Crashes	12

Collision Type Summary	
Collision Type	Crashes
BICYCLIST	1
ANIMAL	-
REAR END	7
RIGHT ANGLE	2
LEFT TURN (AGAINST OTHER CAR)	-
LEFT TURN (WITH OTHER CAR)	-
RIGHT TURN (AGAINST OTHER CAR)	-
RIGHT TURN (WITH OTHER CAR)	-
OVERTAKING	2
SIDESWIPE	-
HEAD ON	-
OBJECT IN ROADWAY	-
Total Crashes	12

NYS ROUTE 9D (NORTH AVENUE/WOLCOTT AVENUE) AT INTERSECTION OF TOMPKINS AVENUE/RALPH STREET

Crashes by Year	
Year	Crashes
2018	2
2019	2
2020	1
2021	3
2022	2
2023	2
Total Crashes	12

Accident Class Summary	
Accident Class	Crashes
N/R	-
PDO	9
I	3
PDO & I	-
F	-
Total Crashes	12

Light Condition Summary	
Light Condition	Crashes
UNKNOWN	-
NOT ENTERED	-
DAYLIGHT	12
DAWN	-
DUSK	-
DARK-ROAD LIGHTED	-
DARK-ROAD UNLIGHTED	-
Total Crashes	12

Road Condition Summary	
Road Condition	Crashes
UNKNOWN	-
NOT ENTERED	-
DRY	9
WET	3
MUDDY	-
SNOW/ICE	-
SLUSH	-
FLOODED	-
OTHER	-
Total Crashes	12

Weather Summary	
Weather Condition	Crashes
UNKNOWN	-
NOT ENTERED	-
CLEAR	8
CLOUDY	3
RAIN	1
SNOW	-
SLEET/HAIL/FREEZING RAIN	-
FOG/SMOG/SMOKE	-
OTHER	-
Total Crashes	12

Collision Type Summary	
Collision Type	Crashes
PEDESTRIAN	-
ANIMAL	-
REAR END	3
RIGHT ANGLE	8
LEFT TURN (AGAINST OTHER CAR)	1
LEFT TURN (WITH OTHER CAR)	-
RIGHT TURN (AGAINST OTHER CAR)	-
RIGHT TURN (WITH OTHER CAR)	-
OVERTAKING	-
SIDESWIPE	-
HEAD ON	-
OBJECT IN ROADWAY	-
Total Crashes	12

NYS ROUTE 9D (NORTH AVENUE/WOLCOTT AVENUE) AT INTERSECTION OF VERPLANCK AVENUE

Crashes by Year	
Year	Crashes
2018	4
2019	7

Accident Class Summary	
Accident Class	Crashes
N/R	-
PDO	18

Light Condition Summary	
Light Condition	Crashes
UNKNOWN	-
NOT ENTERED	-

Road Condition Summary	
Road Condition	Crashes
UNKNOWN	-
NOT ENTERED	-

Weather Summary	
Weather Condition	Crashes
UNKNOWN	-
NOT ENTERED	-

Collision Type Summary	
Collision Type	Crashes
PEDESTRIAN	-
ANIMAL	-

TABLE A-2

CRASH DATA SUMMARY
BEEKMAN STREET BETWEEN W. MAIN STREET & NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE)
NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE) BETWEEN MAIN STREET AND VERPLANCK AVENUE
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK
STUDY PERIOD: JANUARY 1, 2017 THROUGH JULY 31, 2023

SUMMARY BY INTERSECTION

2020	1
2021	3
2022	5
2023	2
Total Crashes	**22**

I	4
PDO & I	-
F	-
Total Crashes	**22**

DAYLIGHT	18
DAWN	1
DUSK	-
DARK-ROAD LIGHTED	3
DARK-ROAD UNLIGHTED	-
Total Crashes	**22**

DRY	19
WET	2
MUDDY	-
SNOW/ICE	1
SLUSH	-
FLOODED	-
OTHER	-
Total Crashes	**22**

CLEAR	17
CLOUDY	3
RAIN	2
SNOW	-
SLEET/HAIL/FREEZING RAIN	-
FOG/SMOG/SMOKE	-
OTHER	-
Total Crashes	**22**

REAR END	14
RIGHT ANGLE	4
LEFT TURN (AGAINST OTHER CAR)	2
LEFT TURN (WITH OTHER CAR)	-
RIGHT TURN (AGAINST OTHER CAR)	-
RIGHT TURN (WITH OTHER CAR)	-
OVERTAKING	1
SIDESWIPE	1
HEAD ON	-
OBJECT IN ROADWAY	-
Total Crashes	**22**

TABLE A-3
SUMMARY OF ACCIDENT RATES AND COMPARISON TO STATE WIDE AVERAGES
BEEKMAN STREET BETWEEN W. MAIN STREET & NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE)
NYS ROUTE 9D (WOLCOTT AVENUE/NORTH AVENUE) BETWEEN MAIN STREET AND VERPLANCK AVENUE
CITY OF BEACON, DUTCHESS COUNTY, NEW YORK
STUDY PERIOD: JANUARY 1, 2017 THROUGH JULY 31, 2023

Roadway Intersection/Segment	Analysis Period (Years)	Intersection/ Segment AADT (VPD)	No. of Accidents	Intersection Accident Rate (ACC/MEV)	State-Wide Average Accident Rate (ACC/MEV)
North Avenue (NYS Route 9D) and Verplanck Avenue	5.583	25,224	17	0.33	0.32
North Avenue (NYS Route 9D) and Tompkins Avenue/Ralph Street	5.583	21,379	12	0.28	0.31
North Avenue (NYS Route 9D) and Beekman Street/W. Church Street	5.583	23,254	12	0.25	0.26
Wolcott Avenue/North Avenue (NYS Route 9D) and Main Street/Municipal Plaza	5.583	23,142	22	0.47	0.26
Beekman Street and High Street	5.583	3,828	-	-	0.19

Notes:

1) State-Wide Average Accident Rates based on "Average Accident Rates for State Highways By Facility Type" published by the New York State Department of Transportation for the period September 1, 2017 through August 31, 2019.

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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.

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

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Appendix D | Intersection Capacity Analysis



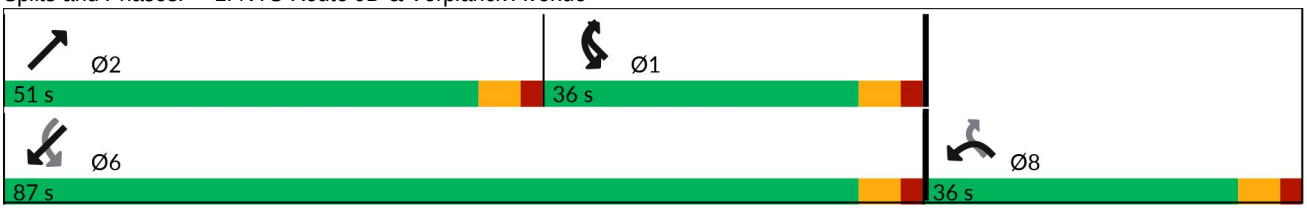
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	58	248	475	45	274	629
Future Volume (vph)	58	248	475	45	274	629
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.99			
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						
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	

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Lane Group	NWL	NWR	NET	NER	SWL	SWT
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	0.26	0.44	0.73		0.43	0.47
Control Delay (s/veh)	34.1	18.2	25.2		11.0	6.4
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)	34.1	18.2	25.2		11.0	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



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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
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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		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 7th Control Delay, s/veh	13.1
HCM 7th LOS	B

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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

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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	1272	1279	729	1265	1296	538	734	0	0	529	0	0
Stage 1	717	717	-	560	560	-	-	-	-	-	-	-
Stage 2	555	562	-	705	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	192	220	455	139	162	543	871	-	-	1038	-	-
Stage 1	493	508	-	494	511	-	-	-	-	-	-	-
Stage 2	584	577	-	410	425	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	181	211	446	123	155	530	864	-	-	1025	-	-
Mov Cap-2 Maneuver	181	211	-	123	155	-	-	-	-	-	-	-
Stage 1	489	504	-	478	494	-	-	-	-	-	-	-
Stage 2	557	559	-	379	421	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	21.22	24.69	0.29	0.01
HCM LOS	C	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	864	-	-	269	200	3	-	-
HCM Lane V/C Ratio	0.019	-	-	0.176	0.084	0.001	-	-
HCM Control Delay (s/veh)	9.2	-	-	21.2	24.7	8.5	0	-
HCM Lane LOS	A	-	-	C	C	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.6	0.3	0	-	-

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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		0.99	0.97		0.99		0.99	0.99		0.99	0.98	
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	
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	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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		0.53	0.09		0.09		0.03	0.32		0.00	0.60	
Control Delay (s/veh)		36.2	0.5		18.3		3.2	7.4		5.5	12.8	
Queue Delay		0.0	0.0		0.0		0.0	0.1		0.0	0.0	
Total Delay (s/veh)		36.2	0.5		18.3		3.2	7.5		5.5	12.8	
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



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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
Lane Width 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
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		C	C			B		C	B		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 7th Control Delay, s/veh			115.3									
HCM 7th LOS			F									

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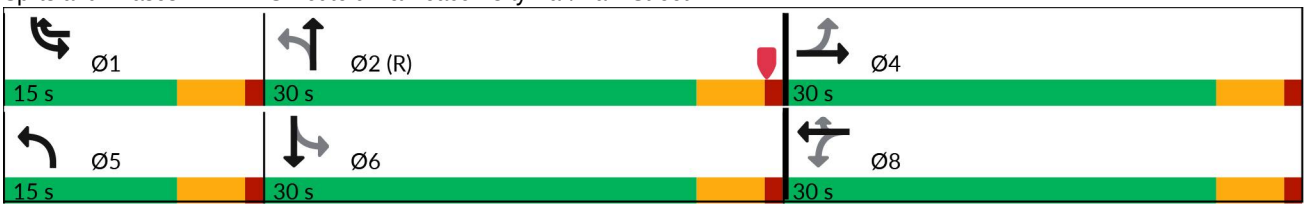
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	4	2	8	6	107	4	310	24	222	257	5
Future Volume (vph)	3	4	2	8	6	107	4	310	24	222	257	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-3%			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				0.95		0.99			0.99	
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	
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	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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		0.07			0.08	0.38	0.00	0.34		0.33	0.19	
Control Delay (s/veh)		23.0			26.1	25.0	5.7	10.9		4.3	4.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)		23.0			26.1	25.0	5.7	10.9		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



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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
Lane Width 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
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			C		C	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 7th Control Delay, s/veh	9.5
HCM 7th LOS	A

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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	

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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	534	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	732	1195	-	-	-
Mov Cap-2 Maneuver	662	-	-	-	-	-
Stage 1	854	-	-	-	-	-
Stage 2	924	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s/v	10.2	0.06	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	13	-	695	-	-
HCM Lane V/C Ratio	0.001	-	0.004	-	-
HCM Control Delay (s/veh)	8	0	10.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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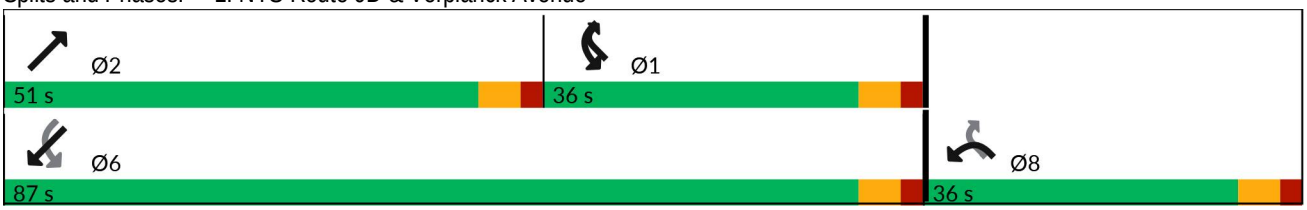
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	59	297	625	50	219	574
Future Volume (vph)	59	297	625	50	219	574
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.99			
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						
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	

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Lane Group	NWL	NWR	NET	NER	SWL	SWT
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	0.35	0.57	0.76		0.37	0.40
Control Delay (s/veh)	45.1	26.8	27.9		10.6	4.9
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)	45.1	26.8	27.9		10.6	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



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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
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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		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 7th Control Delay, s/veh	17.0
HCM 7th LOS	B

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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

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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	1392	1394	656	1381	1404	702	665	0	0	701	0	0
Stage 1	663	663	-	729	729	-	-	-	-	-	-	-
Stage 2	730	731	-	652	676	-	-	-	-	-	-	-
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	163	193	501	121	139	401	924	-	-	896	-	-
Stage 1	522	532	-	415	428	-	-	-	-	-	-	-
Stage 2	487	502	-	457	453	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	152	187	497	112	135	399	921	-	-	895	-	-
Mov Cap-2 Maneuver	152	187	-	112	135	-	-	-	-	-	-	-
Stage 1	515	525	-	407	420	-	-	-	-	-	-	-
Stage 2	468	493	-	435	447	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	27.81	31.26	0.19	0.07
HCM LOS	D	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	921	-	-	198	151	15	-	-
HCM Lane V/C Ratio	0.017	-	-	0.204	0.093	0.006	-	-
HCM Control Delay (s/veh)	9	-	-	27.8	31.3	9	0	-
HCM Lane LOS	A	-	-	D	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.7	0.3	0	-	-

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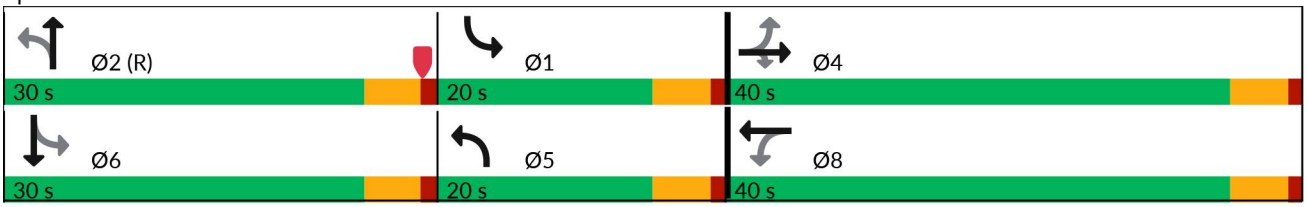
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	275	12	24	1	7	6	31	376	12	4	462	135
Future Volume (vph)	275	12	24	1	7	6	31	376	12	4	462	135
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-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		0.99			0.98		0.99	0.99		0.99	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	1568	0	1815	0	1690	1890	0	1743	1746	0
Flt Permitted		0.723			0.985		0.241			0.426		
Satd. Flow (perm)	0	1328	1568	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	
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	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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		0.81	0.05		0.03		0.10	0.38		0.00	0.68	
Control Delay (s/veh)		46.3	0.2		14.2		9.7	11.9		10.5	22.8	
Queue Delay		0.0	0.0		0.0		0.0	0.3		0.0	0.0	
Total Delay (s/veh)		46.3	0.2		14.2		9.7	12.3		10.5	22.8	
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



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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
Lane Width 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
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		B	B			C		D	C		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 7th Control Delay, s/veh		188.4
HCM 7th LOS		F

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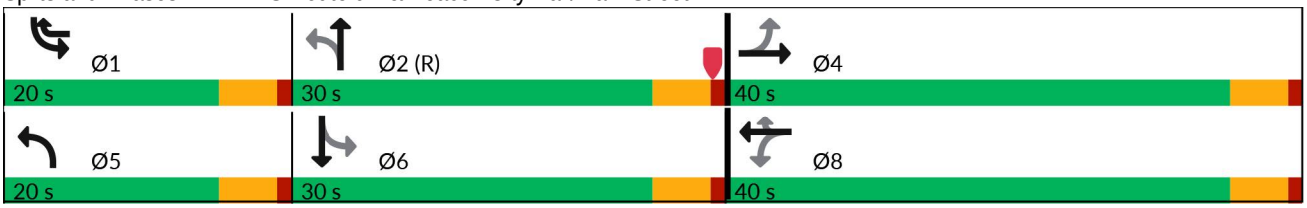
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	7	1	35	1	152	1	265	64	215	274	0
Future Volume (vph)	1	7	1	35	1	152	1	265	64	215	274	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-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		0.99				0.95		0.98				
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	
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	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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			0.19	0.42	0.00	0.37		0.33	0.21	
Control Delay (s/veh)		25.9			32.2	26.1	7.0	14.6		5.8	4.4	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.2	
Total Delay (s/veh)		25.9			32.2	26.1	7.0	14.6		5.8	4.6	
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



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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
Lane Width 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
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			C		C	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 7th Control Delay, s/veh		11.7
HCM 7th LOS		B

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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	

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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	705	264	258	0	-	0
Stage 1	256	-	-	-	-	-
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	596	833	1307	-	-	-
Stage 1	907	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	581	816	1291	-	-	-
Mov Cap-2 Maneuver	581	-	-	-	-	-
Stage 1	895	-	-	-	-	-
Stage 2	815	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s/v	9.93	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1291	-	741	-	-
HCM Lane V/C Ratio	-	-	0.015	-	-
HCM Control Delay (s/veh)	0	-	9.9	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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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	0.97		0.99			
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
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

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Lane Group	NWL	NWR	NET	NER	SWL	SWT
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	0.71		0.33	0.41
Control Delay (s/veh)	37.2	23.1	23.5		8.3	4.8
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)	37.2	23.1	23.5		8.3	4.8
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



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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
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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		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 7th Control Delay, s/veh	14.3
HCM 7th LOS	B

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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

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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	1301	1298	682	1285	1308	588	688	0	0	584	0	0
Stage 1	691	691	-	605	605	-	-	-	-	-	-	-
Stage 2	610	607	-	680	703	-	-	-	-	-	-	-
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	183	216	485	141	159	509	906	-	-	991	-	-
Stage 1	505	519	-	485	487	-	-	-	-	-	-	-
Stage 2	550	556	-	441	440	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	167	209	480	133	154	505	901	-	-	989	-	-
Mov Cap-2 Maneuver	167	209	-	133	154	-	-	-	-	-	-	-
Stage 1	496	510	-	477	480	-	-	-	-	-	-	-
Stage 2	522	548	-	423	432	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	27.65	21.23	0.18	0.09
HCM LOS	D	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	901	-	-	201	241	19	-	-
HCM Lane V/C Ratio	0.013	-	-	0.212	0.079	0.008	-	-
HCM Control Delay (s/veh)	9	-	-	27.7	21.2	8.7	0	-
HCM Lane LOS	A	-	-	D	C	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.8	0.3	0	-	-

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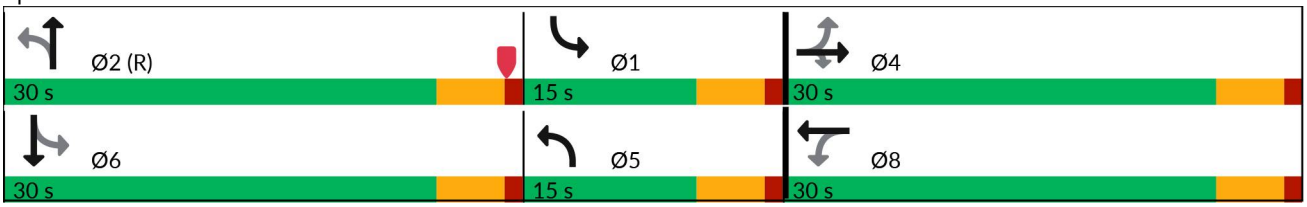
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	5	32	9	3	7	60	411	3	7	445	180
Future Volume (vph)	140	5	32	9	3	7	60	411	3	7	445	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-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		0.99	0.99		0.99	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	1568	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												
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		

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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		0.64	0.09		0.06		0.17	0.37		0.01	0.69	
Control Delay (s/veh)		38.8	0.5		16.6		8.4	10.6		6.4	18.8	
Queue Delay		0.0	0.0		0.0		0.0	0.3		0.0	0.0	
Total Delay (s/veh)		38.8	0.5		16.6		8.4	10.9		6.4	18.8	
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



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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
Lane Width 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
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		C	C			C		C	B		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 7th Control Delay, s/veh		81.0	
HCM 7th LOS		F	

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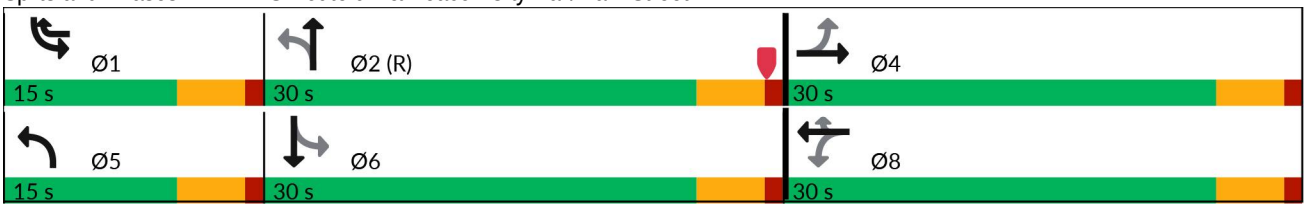
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	1	1	23	0	185	1	288	37	233	250	2
Future Volume (vph)	1	1	1	23	0	185	1	288	37	233	250	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-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		0.98				0.97		0.98			0.99	
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												
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		

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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		0.01			0.14	0.57	0.00	0.32		0.30	0.17	
Control Delay (s/veh)		21.0			27.4	29.1	6.0	11.3		4.1	4.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)		21.0			27.4	29.1	6.0	11.3		4.1	4.0	
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



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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
Lane Width 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
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			C		C	A		B	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 7th Control Delay, s/veh		11.2
HCM 7th LOS		B

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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

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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	678	779	1261	-	-	-
Mov Cap-2 Maneuver	678	-	-	-	-	-
Stage 1	882	-	-	-	-	-
Stage 2	909	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s/v	9.98	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1261	-	725	-	-
HCM Lane V/C Ratio	-	-	0.003	-	-
HCM Control Delay (s/veh)	0	-	10	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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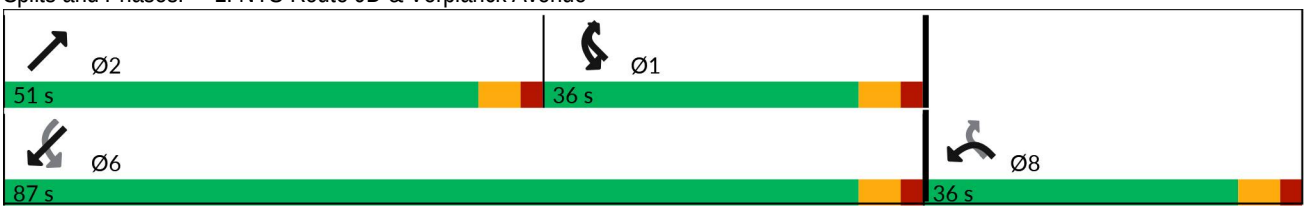
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	65	267	587	51	292	709
Future Volume (vph)	65	267	587	51	292	709
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.99			
Frt		0.850	0.989			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1811	0	1778	1854
Flt Permitted	0.950				0.242	
Satd. Flow (perm)	1715	1544	1811	0	453	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	281	618	54	307	746
Shared Lane Traffic (%)						
Lane Group Flow (vph)	68	281	672	0	307	746
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
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	

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Lane Group	NWL	NWR	NET	NER	SWL	SWT
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	0.35	0.51	0.73		0.49	0.50
Control Delay (s/veh)	43.7	24.8	26.2		13.7	6.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)	43.7	24.8	26.2		13.7	6.1
Queue Length 50th (ft)	36	121	278		36	123
Queue Length 95th (ft)	82	188	#664		101	319
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	626	640	986		887	1680
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	0.44	0.68		0.35	0.44

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 86	
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



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Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	65	267	587	51	292	709	
Future Volume (veh/h)	65	267	587	51	292	709	
Initial Q (Qb), veh	0	0	0	0	0	0	
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	
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	281	618	54	307	746	
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	202	341	714	62	378	1241	
Arrive On Green	0.12	0.12	0.43	0.43	0.11	0.66	
Sat Flow, veh/h	1641	1460	1647	144	1818	1894	
Grp Volume(v), veh/h	68	281	0	672	307	746	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1791	1818	1894	
Q Serve(g_s), s	2.0	3.9	0.0	18.4	3.4	12.1	
Cycle Q Clear(g_c), s	2.0	3.9	0.0	18.4	3.4	12.1	
Prop In Lane	1.00	1.00		0.08	1.00		
Lane Grp Cap(c), veh/h	202	341	0	776	378	1241	
V/C Ratio(X)	0.34	0.82	0.00	0.87	0.81	0.60	
Avail Cap(c_a), veh/h	911	972	0	1491	1186	2839	
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	21.7	19.7	0.0	13.9	21.7	5.3	
Incr Delay (d2), s/veh	0.4	1.9	0.0	3.1	1.6	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	3.2	0.0	6.7	3.5	3.0	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d), s/veh	22.0	21.6	0.0	17.0	23.3	5.8	
LnGrp LOS	C	C		B	C	A	
Approach Vol, veh/h	349		672			1053	
Approach Delay, s/veh	21.7		17.0			10.9	
Approach LOS	C		B			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.0	29.4				41.4	12.6
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	5.4	20.4				14.1	5.9
Green Ext Time (p_c), s	0.6	3.0				3.6	0.8

Intersection Summary		
HCM 7th Control Delay, s/veh	14.7	
HCM 7th LOS	B	

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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	544	6	2	725	54
Future Volume (vph)	76	4	38	9	0	9	20	544	6	2	725	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	573	6	2	763	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	124	0	0	18	0	21	579	0	0	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
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

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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	544	6	2	725	54
Future Vol, veh/h	76	4	38	9	0	9	20	544	6	2	725	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	573	6	2	763	57

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1431	1439	814	1415	1464	602	828	0	0	593	0	0
Stage 1	804	804	-	632	632	-	-	-	-	-	-	-
Stage 2	627	635	-	783	832	-	-	-	-	-	-	-
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	154	183	411	109	128	500	803	-	-	983	-	-
Stage 1	450	473	-	450	474	-	-	-	-	-	-	-
Stage 2	542	544	-	371	384	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	144	174	402	90	122	488	798	-	-	971	-	-
Mov Cap-2 Maneuver	144	174	-	90	122	-	-	-	-	-	-	-
Stage 1	445	468	-	433	456	-	-	-	-	-	-	-
Stage 2	512	523	-	325	380	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/veh	58.46	31.93	0.34	0.02
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	798	-	-	183	153	5	-	-
HCM Lane V/C Ratio	0.026	-	-	0.679	0.124	0.002	-	-
HCM Control Delay (s/veh)	9.6	-	-	58.5	31.9	8.7	0	-
HCM Lane LOS	A	-	-	F	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	4.1	0.4	0	-	-

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	117	5	51	9	10	8	25	453	3	3	515	254
Future Volume (vph)	117	5	51	9	10	8	25	453	3	3	515	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		0.99	0.97		0.99		0.99	0.99		0.99	0.98	
Frt			0.850		0.959			0.999			0.950	
Flt Protected		0.954			0.984		0.950			0.950		
Satd. Flow (prot)	0	1712	1494	0	1833	0	1754	1844	0	1743	1692	0
Flt Permitted		0.712			0.888		0.203			0.427		
Satd. Flow (perm)	0	1276	1460	0	1653	0	374	1844	0	779	1692	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		9						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)	126	5	55	10	11	9	27	487	3	3	554	273
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	131	55	0	30	0	27	490	0	3	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												
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												
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	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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		0.58	0.16		0.10		0.07	0.37		0.00	0.70	
Control Delay (s/veh)		37.2	2.2		18.0		4.1	7.8		6.0	17.3	
Queue Delay		0.0	0.0		0.0		0.0	0.1		0.0	0.0	
Total Delay (s/veh)		37.2	2.2		18.0		4.1	7.9		6.0	17.3	
Queue Length 50th (ft)		57	0		8		2	72		0	173	
Queue Length 95th (ft)		92	8		25		m7	172		4	#646	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		425	554		557		480	1309		736	1172	
Starvation Cap Reductn		0	0		0		0	169		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	0.10		0.05		0.06	0.43		0.00	0.71	

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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	5	51	9	10	8	25	453	3	3	515	254
Future Volume (veh/h)	117	5	51	9	10	8	25	453	3	3	515	254
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	126	5	55	10	11	9	27	487	3	3	554	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	246	8	347	83	98	50	554	677	4	610	368	181
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.23	0.33	0.33	0.23	0.33	0.33
Sat Flow, veh/h	656	33	1496	82	423	216	1948	2031	13	1731	1103	544
Grp Volume(v), veh/h	131	0	55	30	0	0	27	0	490	3	0	827
Grp Sat Flow(s),veh/h/ln	689	0	1496	720	0	0	1948	0	2043	1731	0	1647
Q Serve(g_s), s	0.0	0.0	2.2	0.2	0.0	0.0	0.0	0.0	15.8	0.0	0.0	25.0
Cycle Q Clear(g_c), s	15.1	0.0	2.2	15.3	0.0	0.0	0.0	0.0	15.8	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.33		0.30	1.00		0.01	1.00		0.33
Lane Grp Cap(c), veh/h	254	0	347	231	0	0	554	0	681	610	0	549
V/C Ratio(X)	0.52	0.00	0.16	0.13	0.00	0.00	0.05	0.00	0.72	0.00	0.00	1.51
Avail Cap(c_a), veh/h	369	0	499	423	0	0	554	0	681	610	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	0.91	0.00	0.91	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.9	0.0	23.0	23.3	0.0	0.0	22.0	0.0	21.9	15.5	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	5.9	0.0	0.0	237.2
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	2.2	0.0	0.8	0.4	0.0	0.0	0.4	0.0	8.2	0.0	0.0	45.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.5	0.0	23.1	23.4	0.0	0.0	22.0	0.0	27.8	15.5	0.0	262.2
LnGrp LOS	C		C	C			C		C	B		F
Approach Vol, veh/h		186			30			517			830	
Approach Delay, s/veh		26.9			23.4			27.5			261.3	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	22.6	30.0		22.4	22.6	30.0		22.4				
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	17.8		17.1	2.0	27.0		17.3				
Green Ext Time (p_c), s	0.0	0.7		0.2	0.0	0.0		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			151.5									
HCM 7th LOS			F									

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	5	3	14	7	123	5	355	31	243	327	6
Future Volume (vph)	4	5	3	14	7	123	5	355	31	243	327	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			0.99	
Frt		0.966				0.850		0.988			0.997	
Flt Protected		0.983			0.968		0.950			0.950		
Satd. Flow (prot)	0	1779	0	0	1913	1647	1832	1855	0	1743	1846	0
Flt Permitted		0.882			0.791		0.537			0.368		
Satd. Flow (perm)	0	1596	0	0	1563	1574	1036	1855	0	675	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	15	8	135	6	449	39	276	372	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	23	135	6	488	0	276	379	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												
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	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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			0.12	0.38	0.00	0.43		0.40	0.25	
Control Delay (s/veh)		21.9			27.0	22.0	6.2	14.0		7.1	4.6	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.1	
Total Delay (s/veh)		21.9			27.0	22.0	6.2	14.0		7.1	4.8	
Queue Length 50th (ft)		7			10	49	1	114		17	24	
Queue Length 95th (ft)		12			23	57	5	261		m82	92	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		535			521	386	872	1125		695	1481	
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			0.04	0.35	0.01	0.43		0.40	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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	5	3	14	7	123	5	355	31	243	327	6
Future Volume (veh/h)	4	5	3	14	7	123	5	355	31	243	327	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	15	8	135	6	449	39	276	372	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	116	118	56	226	110	409	712	1027	89	624	1172	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	833	398	1043	779	1753	1922	1796	156	1731	1792	34
Grp Volume(v), veh/h	20	0	0	23	0	135	6	0	488	276	0	379
Grp Sat Flow(s),veh/h/ln	1591	0	0	1822	0	1753	1922	0	1952	1731	0	1826
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	4.8	0.1	0.0	10.7	4.5	0.0	6.8
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.7	0.0	4.8	0.1	0.0	10.7	4.5	0.0	6.8
Prop In Lane	0.35		0.25	0.65		1.00	1.00		0.08	1.00		0.02
Lane Grp Cap(c), veh/h	289	0	0	336	0	409	712	0	1116	624	0	1195
V/C Ratio(X)	0.07	0.00	0.00	0.07	0.00	0.33	0.01	0.00	0.44	0.44	0.00	0.32
Avail Cap(c_a), veh/h	578	0	0	678	0	746	959	0	1116	704	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	0.69	0.00	0.69
Uniform Delay (d), s/veh	28.0	0.0	0.0	28.0	0.0	24.2	6.8	0.0	9.2	6.0	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	1.2	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	0.4	0.0	1.9	0.0	0.0	4.3	1.2	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.0	0.0	0.0	28.0	0.0	24.4	6.8	0.0	10.4	6.1	0.0	6.1
LnGrp LOS	C			C		C	A		B	A		A
Approach Vol, veh/h		20			158			494			655	
Approach Delay, s/veh		28.0			24.9			10.4			6.1	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.5	47.9		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	6.5	12.7		2.7	2.1	8.8		6.8				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.3				

Intersection Summary			
HCM 7th Control Delay, s/veh		10.3	
HCM 7th LOS		B	

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Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	2	2	171	288	0
Future Volume (vph)	2	2	2	171	288	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	216	365	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	219	365	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

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Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	2	2	171	288	0
Future Vol, veh/h	2	2	2	171	288	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	216	365	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	616	397	381	0	-	0
Stage 1	381	-	-	-	-	-
Stage 2	236	-	-	-	-	-
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	639	729	1178	-	-	-
Stage 1	854	-	-	-	-	-
Stage 2	916	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	619	707	1161	-	-	-
Mov Cap-2 Maneuver	619	-	-	-	-	-
Stage 1	839	-	-	-	-	-
Stage 2	903	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s/veh	10.49	0.09	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	21	-	660	-	-
HCM Lane V/C Ratio	0.002	-	0.008	-	-
HCM Control Delay (s/veh)	8.1	0	10.5	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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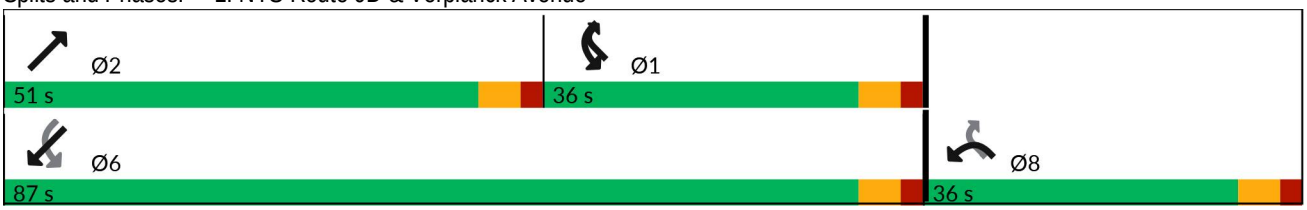
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	66	320	718	56	235	701
Future Volume (vph)	66	320	718	56	235	701
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.99			
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	337	756	59	247	738
Shared Lane Traffic (%)						
Lane Group Flow (vph)	69	337	815	0	247	738
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
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	

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Lane Group	NWL	NWR	NET	NER	SWL	SWT
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	0.38	0.59	0.89		0.45	0.49
Control Delay (s/veh)	46.8	26.9	38.8		18.9	5.7
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)	46.8	26.9	38.8		18.9	5.7
Queue Length 50th (ft)	39	153	420		35	121
Queue Length 95th (ft)	86	229	#925		128	310
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	575	634	907		725	1618
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	0.53	0.90		0.34	0.46

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 92	
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



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Movement	NWL	NWR	NET	NER	SWL	SWT	
Lane Configurations							
Traffic Volume (veh/h)	66	320	718	56	235	701	
Future Volume (veh/h)	66	320	718	56	235	701	
Initial Q (Qb), veh	0	0	0	0	0	0	
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00	
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	337	756	59	247	738	
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	274	382	820	64	299	1267	
Arrive On Green	0.17	0.17	0.49	0.49	0.09	0.67	
Sat Flow, veh/h	1641	1460	1664	130	1818	1894	
Grp Volume(v), veh/h	69	337	0	815	247	738	
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1794	1818	1894	
Q Serve(g_s), s	2.7	9.3	0.0	30.9	4.5	15.5	
Cycle Q Clear(g_c), s	2.7	9.3	0.0	30.9	4.5	15.5	
Prop In Lane	1.00	1.00		0.07	1.00		
Lane Grp Cap(c), veh/h	274	382	0	884	299	1267	
V/C Ratio(X)	0.25	0.88	0.00	0.92	0.83	0.58	
Avail Cap(c_a), veh/h	673	736	0	1103	873	2097	
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	25.9	0.0	17.3	30.7	6.6	
Incr Delay (d2), s/veh	0.2	2.7	0.0	10.9	2.2	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	2.8	0.0	13.8	4.2	4.8	
Unsig. Movement Delay, s/veh							
LnGrp Delay(d), s/veh	26.7	28.7	0.0	28.2	32.9	7.0	
LnGrp LOS	C	C		C	C	A	
Approach Vol, veh/h	406		815			985	
Approach Delay, s/veh	28.3		28.2			13.5	
Approach LOS	C		C			B	

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	12.9	42.0				54.9	18.2
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	6.5	32.9				17.5	11.3
Green Ext Time (p_c), s	0.5	3.1				3.5	0.9

Intersection Summary		
HCM 7th Control Delay, s/veh	21.6	
HCM 7th LOS	C	

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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	661	81
Future Volume (vph)	53	6	19	7	4	5	27	705	6	6	661	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	718	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	17	0	29	773	0	0	813	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	

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Intersection	
Int Delay, s/veh	4.1

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	661	81
Future Vol, veh/h	53	6	19	7	4	5	27	705	6	6	661	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	718	88

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1611	1613	770	1569	1654	776	811	0	0	775	0	0
Stage 1	780	780	-	830	830	-	-	-	-	-	-	-
Stage 2	831	834	-	739	824	-	-	-	-	-	-	-
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	149	436	90	98	363	816	-	-	841	-	-
Stage 1	462	483	-	364	385	-	-	-	-	-	-	-
Stage 2	438	461	-	409	388	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	107	141	433	77	93	361	813	-	-	839	-	-
Mov Cap-2 Maneuver	107	141	-	77	93	-	-	-	-	-	-	-
Stage 1	454	474	-	350	370	-	-	-	-	-	-	-
Stage 2	409	444	-	377	381	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/veh	69.86	44.42	0.35	0.07
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	813	-	-	134	108	14	-	-
HCM Lane V/C Ratio	0.036	-	-	0.634	0.16	0.008	-	-
HCM Control Delay (s/veh)	9.6	-	-	69.9	44.4	9.3	0	-
HCM Lane LOS	A	-	-	F	E	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	3.4	0.5	0	-	-

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	297	13	41	2	8	7	53	434	13	5	530	152
Future Volume (vph)	297	13	41	2	8	7	53	434	13	5	530	152
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		0.99			0.98		0.99	0.99		0.99	0.99	
Frt			0.850		0.943			0.996			0.967	
Flt Protected		0.954			0.995		0.950			0.950		
Satd. Flow (prot)	0	1759	1568	0	1816	0	1690	1892	0	1743	1748	0
Flt Permitted		0.721			0.972		0.140			0.354		
Satd. Flow (perm)	0	1325	1568	0	1774	0	249	1892	0	649	1748	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85		8			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)	323	14	45	2	9	8	58	472	14	5	576	165
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	337	45	0	19	0	58	486	0	5	741	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												
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	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	0.08		0.03		0.27	0.45		0.01	0.83	
Control Delay (s/veh)		46.3	1.2		13.4		15.1	15.7		11.2	33.0	
Queue Delay		0.0	0.0		0.0		0.0	0.3		0.0	0.0	
Total Delay (s/veh)		46.3	1.2		13.4		15.1	16.1		11.2	33.0	
Queue Length 50th (ft)		176	0		4		12	174		1	355	
Queue Length 95th (ft)		246	6		17		m23	212		7	#714	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		518	665		699		414	1060		615	884	
Starvation Cap Reductn		0	0		0		0	201		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		0.65	0.07		0.03		0.14	0.57		0.01	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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	297	13	41	2	8	7	53	434	13	5	530	152
Future Volume (veh/h)	297	13	41	2	8	7	53	434	13	5	530	152
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	323	14	45	2	9	8	58	472	14	5	576	165
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	192	5	607	44	195	142	395	561	17	419	371	106
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	292	13	1561	0	502	365	1891	2018	60	1731	1336	383
Grp Volume(v), veh/h	337	0	45	19	0	0	58	0	486	5	0	741
Grp Sat Flow(s),veh/h/ln	305	0	1561	866	0	0	1891	0	2078	1731	0	1719
Q Serve(g_s), s	0.0	0.0	1.6	0.0	0.0	0.0	0.0	0.0	19.8	0.0	0.0	25.0
Cycle Q Clear(g_c), s	35.0	0.0	1.6	35.0	0.0	0.0	0.0	0.0	19.8	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.11		0.42	1.00		0.03	1.00		0.22
Lane Grp Cap(c), veh/h	197	0	607	381	0	0	395	0	577	419	0	477
V/C Ratio(X)	1.71	0.00	0.07	0.05	0.00	0.00	0.15	0.00	0.84	0.01	0.00	1.55
Avail Cap(c_a), veh/h	197	0	607	381	0	0	395	0	577	419	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	0.88	0.00	0.88	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.5	0.0	17.3	19.3	0.0	0.0	31.2	0.0	30.6	27.3	0.0	32.5
Incr Delay (d2), s/veh	340.9	0.0	0.0	0.0	0.0	0.0	0.1	0.0	12.4	0.0	0.0	258.6
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	23.0	0.0	0.6	0.2	0.0	0.0	1.0	0.0	11.6	0.1	0.0	44.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	375.4	0.0	17.3	19.3	0.0	0.0	31.3	0.0	43.1	27.3	0.0	291.1
LnGrp LOS	F		B	B			C		D	C		F
Approach Vol, veh/h		382			19			544			746	
Approach Delay, s/veh		333.2			19.3			41.8			289.3	
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	21.8		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 7th Control Delay, s/veh		216.6
HCM 7th LOS		F

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	8	2	43	2	181	2	318	74	240	334	0
Future Volume (vph)	2	8	2	43	2	181	2	318	74	240	334	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		0.98				
Frt		0.979				0.850		0.972				
Flt Protected		0.992			0.954		0.950			0.950		
Satd. Flow (prot)	0	1825	0	0	1885	1647	1832	1806	0	1743	1853	0
Flt Permitted		0.959			0.721		0.536			0.349		
Satd. Flow (perm)	0	1764	0	0	1425	1566	1034	1806	0	640	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	47	2	199	3	403	94	273	380	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	0	49	199	3	497	0	273	380	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												
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	

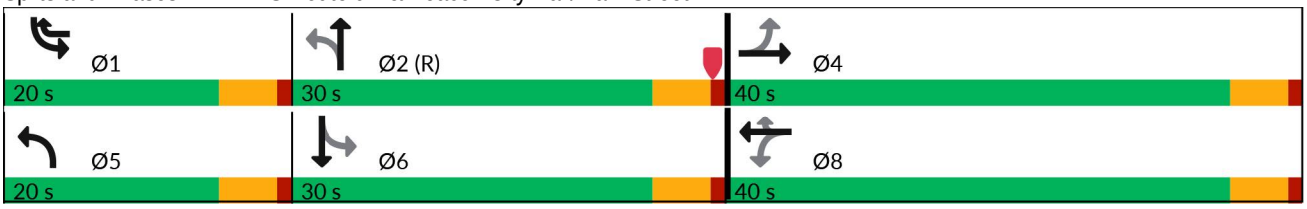
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	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			0.24	0.44	0.00	0.47		0.40	0.25	
Control Delay (s/veh)		25.4			33.2	25.0	7.5	18.2		10.2	5.3	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.2	
Total Delay (s/veh)		25.4			33.2	25.0	7.5	18.2		10.2	5.6	
Queue Length 50th (ft)		9			27	91	0	144		18	25	
Queue Length 95th (ft)		15			51	97	3	304		m91	m86	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		687			554	483	901	1048		706	1472	
Starvation Cap Reductn		0			0	0	0	0		0	543	
Spillback Cap Reductn		0			0	0	0	21		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.03			0.09	0.41	0.00	0.48		0.39	0.41	

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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	8	2	43	2	181	2	318	74	240	334	0
Future Volume (veh/h)	2	8	2	43	2	181	2	318	74	240	334	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	47	2	199	3	403	94	273	380	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	215	44	329	13	431	715	917	214	612	1230	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	124	1348	276	1573	80	1764	1922	1546	361	1731	1832	0
Grp Volume(v), veh/h	19	0	0	49	0	199	3	0	497	273	380	0
Grp Sat Flow(s),veh/h/ln	1748	0	0	1653	0	1764	1922	0	1906	1731	1832	0
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	8.7	0.1	0.0	12.9	5.1	7.7	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	2.1	0.0	8.7	0.1	0.0	12.9	5.1	7.7	0.0
Prop In Lane	0.16		0.16	0.96		1.00	1.00		0.19	1.00		0.00
Lane Grp Cap(c), veh/h	325	0	0	342	0	431	715	0	1131	612	1230	0
V/C Ratio(X)	0.06	0.00	0.00	0.14	0.00	0.46	0.00	0.00	0.44	0.45	0.31	0.00
Avail Cap(c_a), veh/h	707	0	0	715	0	835	1030	0	1131	761	1230	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	0.51	0.51	0.00
Uniform Delay (d), s/veh	32.1	0.0	0.0	32.6	0.0	29.3	7.4	0.0	10.1	6.7	6.1	0.0
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	0.3	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	0.4	0.0	0.0	0.9	0.0	3.6	0.0	0.0	5.3	1.5	2.7	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	32.2	0.0	0.0	32.7	0.0	29.6	7.4	0.0	11.3	6.8	6.5	0.0
LnGrp LOS	C			C		C	A		B	A	A	
Approach Vol, veh/h		19			248			500			653	
Approach Delay, s/veh		32.2			30.2			11.3			6.6	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.3	58.4		19.3	5.2	65.4		19.3				
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	7.1	14.9		2.8	2.1	9.7		10.7				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.6				

Intersection Summary			
HCM 7th Control Delay, s/veh		12.7	
HCM 7th LOS		B	

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Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	3	7	0	348	210	3
Future Volume (vph)	3	7	0	348	210	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	490	296	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	0	0	490	300	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	

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Intersection	
Int Delay, s/veh	0.2

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	3	7	0	348	210	3
Future Vol, veh/h	3	7	0	348	210	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	490	296	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	816	320	314	0	-	0
Stage 1	312	-	-	-	-	-
Stage 2	504	-	-	-	-	-
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	545	788	1246	-	-	-
Stage 1	883	-	-	-	-	-
Stage 2	803	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	532	772	1231	-	-	-
Mov Cap-2 Maneuver	532	-	-	-	-	-
Stage 1	872	-	-	-	-	-
Stage 2	793	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s/v	10.41	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1231	-	680	-	-
HCM Lane V/C Ratio	-	-	0.021	-	-
HCM Control Delay (s/veh)	0	-	10.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

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Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	50	267	638	41	219	735
Future Volume (vph)	50	267	638	41	219	735
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	0.97		0.99			
Frt		0.850	0.992			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1818	0	1778	1872
Flt Permitted	0.950				0.204	
Satd. Flow (perm)	1688	1544	1818	0	382	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	290	693	45	238	799
Shared Lane Traffic (%)						
Lane Group Flow (vph)	54	290	738	0	238	799
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
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

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Lane Group	NWL	NWR	NET	NER	SWL	SWT
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	0.31	0.55	0.78		0.40	0.52
Control Delay (s/veh)	43.1	26.4	27.8		12.1	6.2
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)	43.1	26.4	27.8		12.1	6.2
Queue Length 50th (ft)	29	126	320		25	129
Queue Length 95th (ft)	68	196	#749		78	356
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	597	613	945		828	1687
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	0.47	0.78		0.29	0.47

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 88.4	
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



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Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	50	267	638	41	219	735
Future Volume (veh/h)	50	267	638	41	219	735
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	290	693	45	238	799
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	260	344	781	51	301	1222
Arrive On Green	0.16	0.16	0.46	0.46	0.08	0.64
Sat Flow, veh/h	1641	1460	1688	110	1818	1909
Grp Volume(v), veh/h	54	290	0	738	238	799
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1797	1818	1909
Q Serve(g_s), s	1.7	6.7	0.0	22.3	2.2	15.4
Cycle Q Clear(g_c), s	1.7	6.7	0.0	22.3	2.2	15.4
Prop In Lane	1.00	1.00		0.06	1.00	
Lane Grp Cap(c), veh/h	260	344	0	832	301	1222
V/C Ratio(X)	0.21	0.84	0.00	0.89	0.79	0.65
Avail Cap(c_a), veh/h	826	847	0	1357	1076	2594
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	21.8	21.7	0.0	14.6	25.4	6.6
Incr Delay (d2), s/veh	0.1	2.2	0.0	4.5	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	3.7	0.0	8.6	3.1	4.4
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	22.0	23.9	0.0	19.1	27.2	7.2
LnGrp LOS	C	C		B	C	A
Approach Vol, veh/h	344		738			1037
Approach Delay, s/veh	23.6		19.1			11.8
Approach LOS	C		B			B

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	10.6	33.6				44.2	15.5
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	4.2	24.3				17.4	8.7
Green Ext Time (p_c), s	0.5	3.3				4.0	0.8

Intersection Summary	
HCM 7th Control Delay, s/veh	16.3
HCM 7th LOS	B

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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	608	5	8	699	79
Future Volume (vph)	61	2	18	4	6	11	24	608	5	8	699	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	647	5	9	744	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	22	0	26	652	0	0	837	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	

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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	61	2	18	4	6	11	24	608	5	8	699	79
Future Vol, veh/h	61	2	18	4	6	11	24	608	5	8	699	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	647	5	9	744	84

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1516	1514	798	1470	1553	657	834	0	0	654	0	0
Stage 1	809	809	-	703	703	-	-	-	-	-	-	-
Stage 2	707	705	-	768	851	-	-	-	-	-	-	-
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	168	422	105	113	465	799	-	-	933	-	-
Stage 1	446	471	-	428	440	-	-	-	-	-	-	-
Stage 2	497	513	-	394	377	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	118	158	417	94	107	461	795	-	-	931	-	-
Mov Cap-2 Maneuver	118	158	-	94	107	-	-	-	-	-	-	-
Stage 1	436	461	-	414	425	-	-	-	-	-	-	-
Stage 2	459	496	-	366	368	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/veh	3.87	29.16	0.36	0.09
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	795	-	-	141	171	18	-	-
HCM Lane V/C Ratio	0.032	-	-	0.61	0.13	0.009	-	-
HCM Control Delay (s/veh)	9.7	-	-	63.9	29.2	8.9	0	-
HCM Lane LOS	A	-	-	F	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	3.2	0.4	0	-	-

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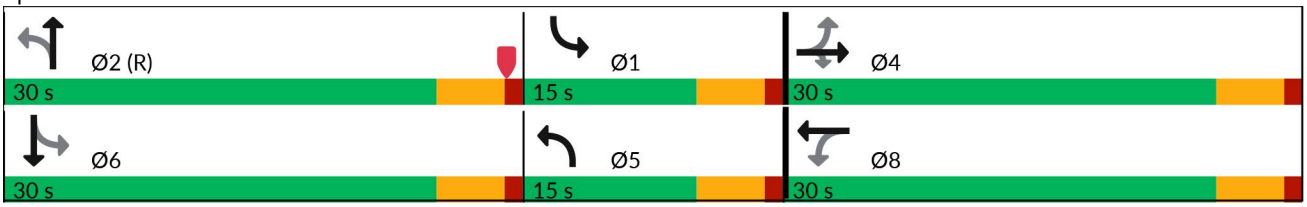
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	154	6	48	10	4	8	84	475	4	8	513	199
Future Volume (vph)	154	6	48	10	4	8	84	475	4	8	513	199
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-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		0.99	0.99		0.99	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	1568	0	1790	0	1823	1916	0	1743	1744	0
Flt Permitted		0.717			0.856		0.154			0.360		
Satd. Flow (perm)	0	1300	1524	0	1564	0	295	1916	0	658	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)	173	7	54	11	4	9	94	534	4	9	576	224
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	180	54	0	24	0	94	538	0	9	800	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												
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		

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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		0.07		0.32	0.44		0.01	0.81	
Control Delay (s/veh)		39.9	1.8		16.1		13.1	11.9		6.8	25.1	
Queue Delay		0.0	0.0		0.0		0.0	0.2		0.0	0.0	
Total Delay (s/veh)		39.9	1.8		16.1		13.1	12.2		6.8	25.1	
Queue Length 50th (ft)		78	0		6		18	107		1	275	
Queue Length 95th (ft)		123	7		21		m27	223		7	#630	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		433	576		527		419	1211		600	987	
Starvation Cap Reductn		0	0		0		0	223		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		0.42	0.09		0.05		0.22	0.54		0.02	0.81	

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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	154	6	48	10	4	8	84	475	4	8	513	199
Future Volume (veh/h)	154	6	48	10	4	8	84	475	4	8	513	199
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	173	7	54	11	4	9	94	534	4	9	576	224
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	322	9	343	109	55	57	570	696	5	593	413	161
Arrive On Green	0.23	0.23	0.23	0.23	0.23	0.23	0.24	0.33	0.33	0.24	0.33	0.33
Sat Flow, veh/h	988	40	1490	171	241	247	2006	2087	16	1731	1240	482
Grp Volume(v), veh/h	180	0	54	24	0	0	94	0	538	9	0	800
Grp Sat Flow(s),veh/h/ln	1028	0	1490	658	0	0	2006	0	2103	1731	0	1723
Q Serve(g_s), s	0.0	0.0	2.2	0.2	0.0	0.0	0.0	0.0	17.2	0.0	0.0	25.0
Cycle Q Clear(g_c), s	13.7	0.0	2.2	13.8	0.0	0.0	0.0	0.0	17.2	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	331	0	343	222	0	0	570	0	701	593	0	574
V/C Ratio(X)	0.54	0.00	0.16	0.11	0.00	0.00	0.16	0.00	0.77	0.02	0.00	1.39
Avail Cap(c_a), veh/h	473	0	497	406	0	0	570	0	701	593	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	0.87	0.00	0.87	1.00	0.00	1.00
Uniform Delay (d), s/veh	27.5	0.0	23.1	23.3	0.0	0.0	21.9	0.0	22.4	16.5	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	6.9	0.0	0.0	187.4
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	3.0	0.0	0.7	0.3	0.0	0.0	1.2	0.0	9.3	0.1	0.0	39.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	28.0	0.0	23.1	23.4	0.0	0.0	21.9	0.0	29.3	16.5	0.0	212.4
LnGrp LOS	C		C	C			C		C	B		F
Approach Vol, veh/h		234			24			632			809	
Approach Delay, s/veh		26.9			23.4			28.2			210.2	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	22.7	30.0		22.3	22.7	30.0		22.3				
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	19.2		15.7	2.0	27.0		15.8				
Green Ext Time (p_c), s	0.0	0.7		0.3	0.0	0.0		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			114.6									
HCM 7th LOS			F									

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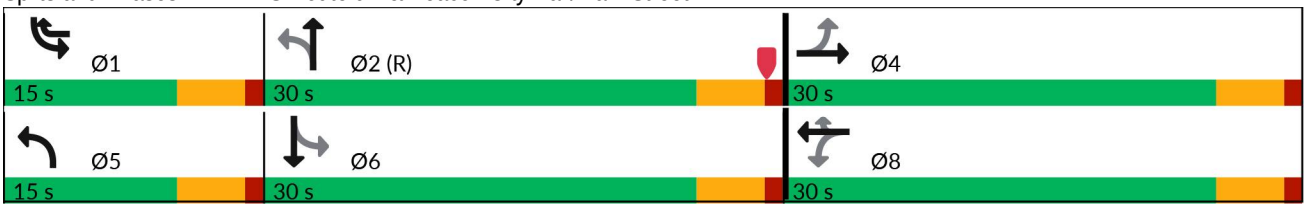
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	2	2	31	0	216	2	346	46	259	308	3
Future Volume (vph)	2	2	2	31	0	216	2	346	46	259	308	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-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		0.98			0.99	
Frt		0.955				0.850		0.982			0.999	
Flt Protected		0.984			0.950		0.950			0.950		
Satd. Flow (prot)	0	1751	0	0	1877	1663	1832	1829	0	1760	1851	0
Flt Permitted		0.898			0.752		0.557			0.390		
Satd. Flow (perm)	0	1598	0	0	1486	1614	1074	1829	0	723	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	35	0	243	2	393	52	282	335	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	9	0	0	35	243	2	445	0	282	338	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												
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		

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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			0.18	0.62	0.00	0.41		0.39	0.22	
Control Delay (s/veh)		20.6			28.2	29.1	6.5	13.5		7.6	4.9	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)		20.6			28.2	29.1	6.5	13.5		7.6	4.9	
Queue Length 50th (ft)		3			16	98	0	95		18	21	
Queue Length 95th (ft)		9			31	98	3	275		m72	m75	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		534			495	403	878	1080		727	1477	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	11		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.02			0.07	0.60	0.00	0.42		0.39	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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	2	31	0	216	2	346	46	259	308	3
Future Volume (veh/h)	2	2	2	31	0	216	2	346	46	259	308	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	35	0	243	2	393	52	282	335	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	380	0	500	690	904	120	617	1128	10
Arrive On Green	0.18	0.18	0.18	0.18	0.00	0.18	0.00	0.53	0.53	0.09	0.62	0.62
Sat Flow, veh/h	349	680	515	1615	0	1832	1922	1709	226	1745	1813	16
Grp Volume(v), veh/h	9	0	0	35	0	243	2	0	445	282	0	338
Grp Sat Flow(s),veh/h/ln	1544	0	0	1615	0	1832	1922	0	1935	1745	0	1829
Q Serve(g_s), s	0.0	0.0	0.0	1.0	0.0	8.4	0.0	0.0	10.6	5.1	0.0	6.4
Cycle Q Clear(g_c), s	0.3	0.0	0.0	1.3	0.0	8.4	0.0	0.0	10.6	5.1	0.0	6.4
Prop In Lane	0.33		0.33	1.00		1.00	1.00		0.12	1.00		0.01
Lane Grp Cap(c), veh/h	336	0	0	380	0	500	690	0	1023	617	0	1138
V/C Ratio(X)	0.03	0.00	0.00	0.09	0.00	0.49	0.00	0.00	0.43	0.46	0.00	0.30
Avail Cap(c_a), veh/h	565	0	0	633	0	788	943	0	1023	684	0	1138
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	25.6	0.0	0.0	26.0	0.0	23.0	8.3	0.0	10.8	7.0	0.0	6.6
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	1.3	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	0.5	0.0	3.5	0.0	0.0	4.4	1.5	0.0	2.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.6	0.0	0.0	26.0	0.0	23.3	8.3	0.0	12.1	7.1	0.0	6.9
LnGrp LOS	C			C		C	A		B	A		A
Approach Vol, veh/h		9			278			447			620	
Approach Delay, s/veh		25.6			23.6			12.1			7.0	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.1	44.7		18.2	5.1	51.7		18.2				
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	7.1	12.6		2.3	2.0	8.4		10.4				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.6				

Intersection Summary		
HCM 7th Control Delay, s/veh	12.2	
HCM 7th LOS	B	

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Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	2	0	209	269	0
Future Volume (vph)	2	2	0	209	269	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	243	313	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	243	313	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

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Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	2	0	209	269	0
Future Vol, veh/h	2	2	0	209	269	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	243	313	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	587	347	330	0	-	0
Stage 1	330	-	-	-	-	-
Stage 2	257	-	-	-	-	-
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	654	767	1230	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	906	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	634	742	1211	-	-	-
Mov Cap-2 Maneuver	634	-	-	-	-	-
Stage 1	862	-	-	-	-	-
Stage 2	893	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s/v	10.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1211	-	684	-	-
HCM Lane V/C Ratio	-	-	0.007	-	-
HCM Control Delay (s/veh)	0	-	10.3	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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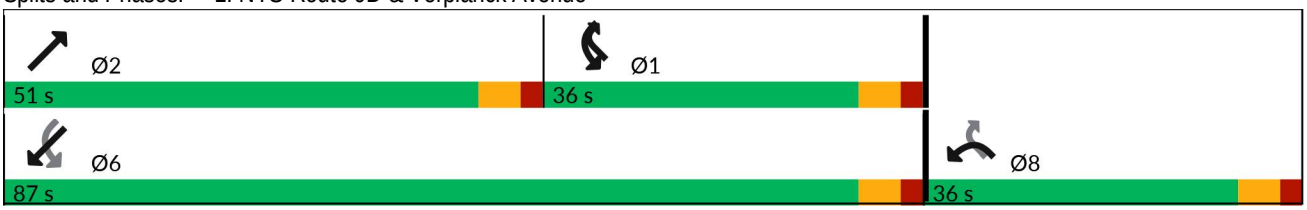
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	68	267	607	54	292	720
Future Volume (vph)	68	267	607	54	292	720
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.99			
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	281	639	57	307	758
Shared Lane Traffic (%)						
Lane Group Flow (vph)	72	281	696	0	307	758
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
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	

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Lane Group	NWL	NWR	NET	NER	SWL	SWT
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	0.38	0.52	0.74		0.50	0.50
Control Delay (s/veh)	44.9	25.6	26.6		14.4	6.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)	44.9	25.6	26.6		14.4	6.1
Queue Length 50th (ft)	39	122	296		37	128
Queue Length 95th (ft)	87	188	#706		101	326
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	594	613	936		852	1659
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	0.46	0.74		0.36	0.46

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 89	
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



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Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	68	267	607	54	292	720
Future Volume (veh/h)	68	267	607	54	292	720
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	281	639	57	307	758
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	197	340	732	65	376	1259
Arrive On Green	0.12	0.12	0.44	0.44	0.11	0.66
Sat Flow, veh/h	1641	1460	1644	147	1818	1894
Grp Volume(v), veh/h	72	281	0	696	307	758
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1791	1818	1894
Q Serve(g_s), s	2.3	3.9	0.0	19.7	3.7	12.5
Cycle Q Clear(g_c), s	2.3	3.9	0.0	19.7	3.7	12.5
Prop In Lane	1.00	1.00		0.08	1.00	
Lane Grp Cap(c), veh/h	197	340	0	797	376	1259
V/C Ratio(X)	0.36	0.83	0.00	0.87	0.82	0.60
Avail Cap(c_a), veh/h	882	949	0	1444	1149	2749
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	22.6	20.4	0.0	14.1	22.4	5.2
Incr Delay (d2), s/veh	0.4	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	3.3	0.0	7.2	3.7	3.1
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	23.0	22.3	0.0	17.3	24.1	5.7
LnGrp LOS	C	C		B	C	A
Approach Vol, veh/h	353		696			1065
Approach Delay, s/veh	22.5		17.3			11.0
Approach LOS	C		B			B

Timer - Assigned Phs	1	2			6	8
Phs Duration (G+Y+Rc), s	12.3	30.8			43.1	12.7
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	21.7			14.5	5.9
Green Ext Time (p_c), s	0.6	3.1			3.7	0.8

Intersection Summary	
HCM 7th Control Delay, s/veh	15.0
HCM 7th LOS	B

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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	558	6	2	728	65
Future Volume (vph)	85	4	38	9	0	9	20	558	6	2	728	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	587	6	2	766	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	18	0	21	593	0	0	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
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

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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	558	6	2	728	65
Future Vol, veh/h	85	4	38	9	0	9	20	558	6	2	728	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	587	6	2	766	68

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1454	1463	823	1433	1494	617	843	0	0	608	0	0
Stage 1	813	813	-	647	647	-	-	-	-	-	-	-
Stage 2	641	650	-	787	847	-	-	-	-	-	-	-
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	149	178	406	106	123	490	793	-	-	971	-	-
Stage 1	446	470	-	442	467	-	-	-	-	-	-	-
Stage 2	534	537	-	369	378	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	139	169	398	88	117	479	787	-	-	958	-	-
Mov Cap-2 Maneuver	139	169	-	88	117	-	-	-	-	-	-	-
Stage 1	441	464	-	425	448	-	-	-	-	-	-	-
Stage 2	504	516	-	323	374	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	72.83	32.85	0.33	0.02
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	787	-	-	174	148	4	-	-
HCM Lane V/C Ratio	0.027	-	-	0.768	0.128	0.002	-	-
HCM Control Delay (s/veh)	9.7	-	-	72.8	32.8	8.8	0	-
HCM Lane LOS	A	-	-	F	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	5	0.4	0	-	-

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	5	70	9	10	8	39	453	3	3	515	257
Future Volume (vph)	131	5	70	9	10	8	39	453	3	3	515	257
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		0.99	0.97		0.99		0.99	0.99		0.99	0.98	
Frt			0.850		0.959			0.999			0.950	
Flt Protected		0.954			0.984		0.950			0.950		
Satd. Flow (prot)	0	1714	1494	0	1833	0	1754	1844	0	1743	1692	0
Flt Permitted		0.711			0.894		0.171			0.414		
Satd. Flow (perm)	0	1275	1460	0	1664	0	315	1844	0	755	1692	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		9						36	
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)	141	5	75	10	11	9	42	487	3	3	554	276
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	146	75	0	30	0	42	490	0	3	830	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												
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	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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		0.61	0.21		0.09		0.14	0.40		0.00	0.79	
Control Delay (s/veh)		38.1	4.1		17.5		5.1	8.4		6.3	22.0	
Queue Delay		0.0	0.0		0.0		0.0	0.1		0.0	0.0	
Total Delay (s/veh)		38.1	4.1		17.5		5.1	8.5		6.3	22.0	
Queue Length 50th (ft)		64	0		8		5	58		0	279	
Queue Length 95th (ft)		102	18		25		m10	173		4	#648	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		425	554		560		434	1212		693	1046	
Starvation Cap Reductn		0	0		0		0	162		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		0.34	0.14		0.05		0.10	0.47		0.00	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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	5	70	9	10	8	39	453	3	3	515	257
Future Volume (veh/h)	131	5	70	9	10	8	39	453	3	3	515	257
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	141	5	75	10	11	9	42	487	3	3	554	276
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	261	7	403	83	99	50	481	677	4	546	366	182
Arrive On Green	0.27	0.27	0.27	0.27	0.27	0.27	0.20	0.33	0.33	0.20	0.33	0.33
Sat Flow, veh/h	619	27	1497	70	367	187	1948	2031	13	1731	1099	547
Grp Volume(v), veh/h	146	0	75	30	0	0	42	0	490	3	0	830
Grp Sat Flow(s),veh/h/ln	646	0	1497	624	0	0	1948	0	2043	1731	0	1646
Q Serve(g_s), s	0.0	0.0	2.9	0.2	0.0	0.0	0.0	0.0	15.8	0.0	0.0	25.0
Cycle Q Clear(g_c), s	17.9	0.0	2.9	18.2	0.0	0.0	0.0	0.0	15.8	0.0	0.0	25.0
Prop In Lane	0.97		1.00	0.33		0.30	1.00		0.01	1.00		0.33
Lane Grp Cap(c), veh/h	268	0	403	232	0	0	481	0	681	546	0	549
V/C Ratio(X)	0.54	0.00	0.19	0.13	0.00	0.00	0.09	0.00	0.72	0.01	0.00	1.51
Avail Cap(c_a), veh/h	341	0	499	353	0	0	481	0	681	546	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	26.5	0.0	21.1	21.7	0.0	0.0	24.1	0.0	21.9	17.4	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	5.8	0.0	0.0	239.9
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	2.4	0.0	1.0	0.4	0.0	0.0	0.6	0.0	8.2	0.0	0.0	45.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.2	0.0	21.2	21.7	0.0	0.0	24.2	0.0	27.8	17.4	0.0	264.9
LnGrp LOS	C		C	C			C		C	B		F
Approach Vol, veh/h		221			30			532			833	
Approach Delay, s/veh		25.1			21.7			27.5			264.0	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	19.8	30.0		25.2	19.8	30.0		25.2				
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	2.0	17.8		19.9	2.0	27.0		20.2				
Green Ext Time (p_c), s	0.0	0.7		0.2	0.0	0.0		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			149.0									
HCM 7th LOS			F									

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	5	3	14	7	128	5	363	31	249	339	6
Future Volume (vph)	4	5	3	14	7	128	5	363	31	249	339	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			0.99	
Frt		0.966				0.850		0.988			0.997	
Flt Protected		0.983			0.968		0.950			0.950		
Satd. Flow (prot)	0	1779	0	0	1913	1647	1832	1856	0	1743	1846	0
Flt Permitted		0.882			0.791		0.530			0.358		
Satd. Flow (perm)	0	1596	0	0	1563	1574	1022	1856	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	15	8	141	6	459	39	283	385	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	23	141	6	498	0	283	392	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												
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	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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			0.12	0.38	0.00	0.44		0.42	0.26	
Control Delay (s/veh)		21.9			27.0	21.8	6.2	14.5		7.3	4.8	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.1	
Total Delay (s/veh)		21.9			27.0	21.8	6.2	14.5		7.3	4.9	
Queue Length 50th (ft)		7			10	51	1	121		18	25	
Queue Length 95th (ft)		12			23	59	5	267		m72	m93	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		535			521	393	857	1114		688	1481	
Starvation Cap Reductn		0			0	0	0	0		0	421	
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			0.04	0.36	0.01	0.45		0.41	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: 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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	5	3	14	7	128	5	363	31	249	339	6
Future Volume (veh/h)	4	5	3	14	7	128	5	363	31	249	339	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	15	8	141	6	459	39	283	385	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	117	119	57	229	111	417	697	1021	87	616	1169	21
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	362	830	397	1045	776	1755	1922	1800	153	1731	1793	33
Grp Volume(v), veh/h	20	0	0	23	0	141	6	0	498	283	0	392
Grp Sat Flow(s),veh/h/ln	1588	0	0	1822	0	1755	1922	0	1953	1731	0	1826
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	5.0	0.1	0.0	11.1	4.6	0.0	7.1
Cycle Q Clear(g_c), s	0.7	0.0	0.0	0.7	0.0	5.0	0.1	0.0	11.1	4.6	0.0	7.1
Prop In Lane	0.35		0.25	0.65		1.00	1.00		0.08	1.00		0.02
Lane Grp Cap(c), veh/h	293	0	0	340	0	417	697	0	1108	616	0	1190
V/C Ratio(X)	0.07	0.00	0.00	0.07	0.00	0.34	0.01	0.00	0.45	0.46	0.00	0.33
Avail Cap(c_a), veh/h	577	0	0	678	0	751	945	0	1108	692	0	1190
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	0.59	0.00	0.59
Uniform Delay (d), s/veh	27.8	0.0	0.0	27.8	0.0	24.0	6.9	0.0	9.4	6.2	0.0	5.8
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	0.4
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	0.3	0.0	0.0	0.4	0.0	2.0	0.0	0.0	4.5	1.3	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.9	0.0	0.0	27.8	0.0	24.2	6.9	0.0	10.8	6.3	0.0	6.2
LnGrp LOS	C			C		C	A		B	A		A
Approach Vol, veh/h		20			164			504			675	
Approach Delay, s/veh		27.9			24.7			10.7			6.3	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	11.7	47.5		15.8	5.4	53.9		15.8				
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	6.6	13.1		2.7	2.1	9.1		7.0				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.3		0.3				

Intersection Summary		
HCM 7th Control Delay, s/veh		10.4
HCM 7th LOS		B

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Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	2	2	176	295	0
Future Volume (vph)	2	2	2	176	295	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	223	373	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	6	0	0	226	373	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	

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Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	2	2	176	295	0
Future Vol, veh/h	2	2	2	176	295	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	223	373	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	631	405	389	0	-	0
Stage 1	389	-	-	-	-	-
Stage 2	242	-	-	-	-	-
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	632	722	1169	-	-	-
Stage 1	850	-	-	-	-	-
Stage 2	913	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	612	701	1152	-	-	-
Mov Cap-2 Maneuver	612	-	-	-	-	-
Stage 1	836	-	-	-	-	-
Stage 2	900	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s/veh	10.55	0.09	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	20	-	653	-	-
HCM Lane V/C Ratio	0.002	-	0.008	-	-
HCM Control Delay (s/veh)	8.1	0	10.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	32	7	5	172	288	17
Future Volume (vph)	32	7	5	172	288	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	0.976				0.992	
Flt Protected	0.961			0.999		
Satd. Flow (prot)	1922	0	0	2049	1786	0
Flt Permitted	0.961			0.999		
Satd. Flow (perm)	1922	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)	41	9	6	218	365	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	50	0	0	224	387	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	

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Intersection	
Int Delay, s/veh	1.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	32	7	5	172	288	17
Future Vol, veh/h	32	7	5	172	288	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	41	9	6	218	365	22

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	606	375	386	0	-	0
Stage 1	375	-	-	-	-	-
Stage 2	230	-	-	-	-	-
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	460	671	1172	-	-	-
Stage 1	695	-	-	-	-	-
Stage 2	808	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	458	671	1172	-	-	-
Mov Cap-2 Maneuver	458	-	-	-	-	-
Stage 1	690	-	-	-	-	-
Stage 2	808	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s/v	13.26	0.23	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	51	-	485	-	-
HCM Lane V/C Ratio	0.005	-	0.102	-	-
HCM Control Delay (s/veh)	8.1	0	13.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.3	-	-

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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	

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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	268	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	-	-	-	-	886	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1435	-	682	889
Mov Cap-2 Maneuver	-	-	-	-	682	-
Stage 1	-	-	-	-	859	-
Stage 2	-	-	-	-	877	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	0.97	9.1
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	889	-	-	233	-
HCM Lane V/C Ratio	0.013	-	-	0.01	-
HCM Control Delay (s/veh)	9.1	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

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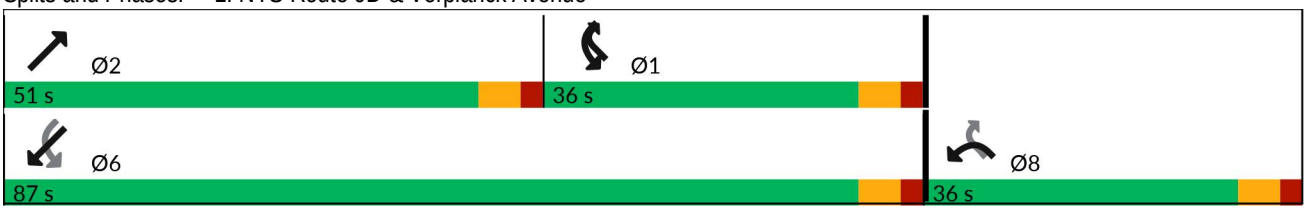
Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	72	320	740	62	235	729
Future Volume (vph)	72	320	740	62	235	729
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	5%		3%			-1%
Storage Length (ft)	85	0		0	340	
Storage Lanes	1	1		0	1	
Taper Length (ft)	86				86	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor	0.99		0.99			
Frt		0.850	0.990			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1813	0	1778	1854
Flt Permitted	0.950				0.108	
Satd. Flow (perm)	1720	1544	1813	0	202	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)	76	337	779	65	247	767
Shared Lane Traffic (%)						
Lane Group Flow (vph)	76	337	844	0	247	767
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
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	8	1	2		1	6
Permitted Phases		8			6	

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Lane Group	NWL	NWR	NET	NER	SWL	SWT
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	0.59	0.93		0.47	0.51
Control Delay (s/veh)	47.4	26.8	43.5		21.9	6.1
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)	47.4	26.8	43.5		21.9	6.1
Queue Length 50th (ft)	43	153	452		51	133
Queue Length 95th (ft)	93	229	#972		147	332
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	574	637	905		700	1614
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	0.53	0.93		0.35	0.48

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 92.2	
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



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Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	72	320	740	62	235	729
Future Volume (veh/h)	72	320	740	62	235	729
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	76	337	779	65	247	767
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	266	380	835	70	297	1290
Arrive On Green	0.16	0.16	0.50	0.50	0.10	0.68
Sat Flow, veh/h	1641	1460	1654	138	1818	1894
Grp Volume(v), veh/h	76	337	0	844	247	767
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1792	1818	1894
Q Serve(g_s), s	3.1	9.5	0.0	33.7	5.1	16.6
Cycle Q Clear(g_c), s	3.1	9.5	0.0	33.7	5.1	16.6
Prop In Lane	1.00	1.00		0.08	1.00	
Lane Grp Cap(c), veh/h	266	380	0	904	297	1290
V/C Ratio(X)	0.29	0.89	0.00	0.93	0.83	0.59
Avail Cap(c_a), veh/h	644	716	0	1054	832	2006
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	27.2	0.0	17.7	32.0	6.5
Incr Delay (d2), s/veh	0.2	2.8	0.0	13.3	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	1.2	2.9	0.0	15.6	4.5	5.2
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	28.4	30.0	0.0	31.0	34.4	7.0
LnGrp LOS	C	C		C	C	A
Approach Vol, veh/h	413		844			1014
Approach Delay, s/veh	29.7		31.0			13.7
Approach LOS	C		C			B

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	13.5	44.6				58.1	18.4
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	7.1	35.7				18.6	11.5
Green Ext Time (p_c), s	0.5	2.9				3.8	0.9

Intersection Summary		
HCM 7th Control Delay, s/veh	23.0	
HCM 7th LOS	C	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	6	19	7	4	5	27	722	6	6	669	107
Future Volume (vph)	64	6	19	7	4	5	27	722	6	6	669	107
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		0.971			0.960			0.999			0.982	
Flt Protected		0.966			0.977		0.950					
Satd. Flow (prot)	0	1842	0	0	1693	0	1770	1923	0	0	1921	0
Flt Permitted		0.966			0.977		0.950					
Satd. Flow (perm)	0	1842	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)	70	7	21	8	4	5	29	785	7	7	727	116
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	98	0	0	17	0	29	792	0	0	850	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	

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Intersection	
Int Delay, s/veh	6.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	64	6	19	7	4	5	27	722	6	6	669	107
Future Vol, veh/h	64	6	19	7	4	5	27	722	6	6	669	107
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	70	7	21	8	4	5	29	785	7	7	727	116

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1652	1654	793	1596	1709	794	847	0	0	793	0	0
Stage 1	802	802	-	849	849	-	-	-	-	-	-	-
Stage 2	850	852	-	747	861	-	-	-	-	-	-	-
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	113	142	424	86	91	354	790	-	-	828	-	-
Stage 1	451	474	-	356	377	-	-	-	-	-	-	-
Stage 2	429	454	-	405	373	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	100	134	421	74	86	352	787	-	-	826	-	-
Mov Cap-2 Maneuver	100	134	-	74	86	-	-	-	-	-	-	-
Stage 1	443	465	-	342	363	-	-	-	-	-	-	-
Stage 2	400	437	-	372	366	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	100.63	47.16	0.35	0.07
HCM LOS	F	E		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	787	-	-	122	103	13	-	-
HCM Lane V/C Ratio	0.037	-	-	0.793	0.17	0.008	-	-
HCM Control Delay (s/veh)	9.8	-	-	100.6	47.2	9.4	0	-
HCM Lane LOS	A	-	-	F	E	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	4.6	0.6	0	-	-

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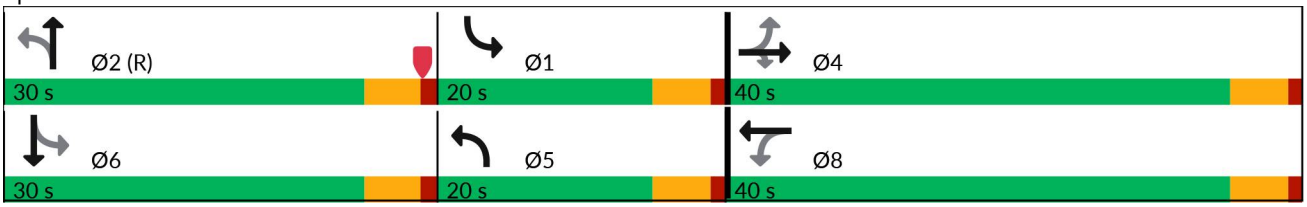
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	314	13	68	2	8	7	85	434	13	5	530	160
Future Volume (vph)	314	13	68	2	8	7	85	434	13	5	530	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-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		0.99			0.98		0.99	0.99		0.99	0.99	
Frt			0.850		0.943			0.996			0.965	
Flt Protected		0.954			0.995		0.950			0.950		
Satd. Flow (prot)	0	1759	1568	0	1816	0	1690	1892	0	1743	1744	0
Flt Permitted		0.721			0.972		0.109			0.340		
Satd. Flow (perm)	0	1325	1568	0	1774	0	194	1892	0	623	1744	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			85		8			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)	341	14	74	2	9	8	92	472	14	5	576	174
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	355	74	0	19	0	92	486	0	5	750	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												
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	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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		0.84	0.13		0.03		0.46	0.47		0.01	0.89	
Control Delay (s/veh)		46.5	3.9		12.9		27.2	17.6		12.0	39.7	
Queue Delay		0.0	0.0		0.0		0.0	0.4		0.0	0.0	
Total Delay (s/veh)		46.5	3.9		12.9		27.2	18.0		12.0	39.7	
Queue Length 50th (ft)		185	0		4		24	184		1	377	
Queue Length 95th (ft)		259	21		17		0	#326		7	#768	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		521	668		702		381	1026		587	841	
Starvation Cap Reductn		0	0		0		0	187		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	0.11		0.03		0.24	0.58		0.01	0.89	

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: 90	
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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	13	68	2	8	7	85	434	13	5	530	160
Future Volume (veh/h)	314	13	68	2	8	7	85	434	13	5	530	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	341	14	74	2	9	8	92	472	14	5	576	174
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	192	5	607	44	195	142	395	561	17	419	366	111
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	292	12	1561	0	502	365	1891	2018	60	1731	1317	398
Grp Volume(v), veh/h	355	0	74	19	0	0	92	0	486	5	0	750
Grp Sat Flow(s),veh/h/ln	304	0	1561	866	0	0	1891	0	2078	1731	0	1715
Q Serve(g_s), s	0.0	0.0	2.7	0.0	0.0	0.0	0.0	0.0	19.8	0.0	0.0	25.0
Cycle Q Clear(g_c), s	35.0	0.0	2.7	35.0	0.0	0.0	0.0	0.0	19.8	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.11		0.42	1.00		0.03	1.00		0.23
Lane Grp Cap(c), veh/h	197	0	607	381	0	0	395	0	577	419	0	477
V/C Ratio(X)	1.80	0.00	0.12	0.05	0.00	0.00	0.23	0.00	0.84	0.01	0.00	1.57
Avail Cap(c_a), veh/h	197	0	607	381	0	0	395	0	577	419	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	0.86	0.00	0.86	1.00	0.00	1.00
Uniform Delay (d), s/veh	34.5	0.0	17.6	19.3	0.0	0.0	31.2	0.0	30.6	27.3	0.0	32.5
Incr Delay (d2), s/veh	381.5	0.0	0.0	0.0	0.0	0.0	0.1	0.0	12.2	0.0	0.0	268.3
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	25.2	0.0	1.0	0.2	0.0	0.0	1.7	0.0	11.6	0.1	0.0	45.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	415.9	0.0	17.7	19.3	0.0	0.0	31.3	0.0	42.8	27.3	0.0	300.8
LnGrp LOS	F		B	B			C		D	C		F
Approach Vol, veh/h		429			19			578			755	
Approach Delay, s/veh		347.2			19.3			41.0			298.9	
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	21.8		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 7th Control Delay, s/veh			223.9									
HCM 7th LOS			F									

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	8	2	43	2	193	2	337	74	251	350	0
Future Volume (vph)	2	8	2	43	2	193	2	337	74	251	350	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		0.98				
Frt		0.979				0.850		0.973				
Flt Protected		0.992			0.954		0.950			0.950		
Satd. Flow (prot)	0	1825	0	0	1885	1647	1832	1810	0	1743	1853	0
Flt Permitted		0.959			0.721		0.527			0.329		
Satd. Flow (perm)	0	1764	0	0	1425	1566	1016	1810	0	604	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	47	2	212	3	427	94	285	398	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	0	49	212	3	521	0	285	398	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												
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	

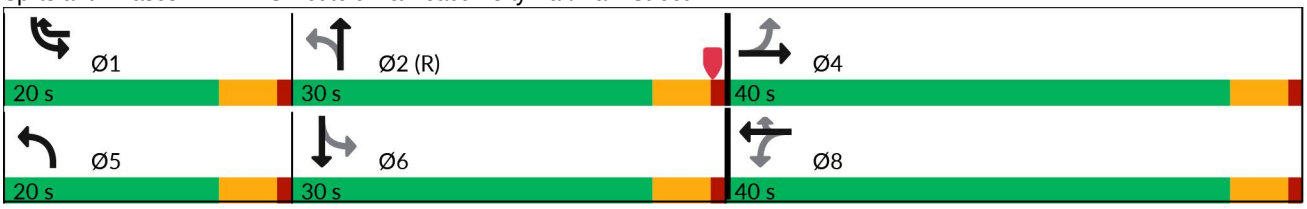
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		28.0	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			0.24	0.46	0.00	0.50		0.42	0.27	
Control Delay (s/veh)		25.4			33.2	25.0	8.0	19.3		12.3	6.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.3	
Total Delay (s/veh)		25.4			33.2	25.0	8.0	19.4		12.3	6.3	
Queue Length 50th (ft)		9			27	96	0	158		26	36	
Queue Length 95th (ft)		15			51	101	3	326		m109	m99	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		687			554	488	885	1037		688	1472	
Starvation Cap Reductn		0			0	0	0	0		0	556	
Spillback Cap Reductn		0			0	0	0	42		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.03			0.09	0.43	0.00	0.52		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: 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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	8	2	43	2	193	2	337	74	251	350	0
Future Volume (veh/h)	2	8	2	43	2	193	2	337	74	251	350	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	47	2	212	3	427	94	285	398	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	67	220	45	336	13	447	693	915	201	593	1222	0
Arrive On Green	0.16	0.16	0.16	0.16	0.16	0.16	0.00	0.58	0.58	0.08	0.67	0.00
Sat Flow, veh/h	126	1344	276	1574	80	1767	1922	1565	345	1731	1832	0
Grp Volume(v), veh/h	19	0	0	49	0	212	3	0	521	285	398	0
Grp Sat Flow(s),veh/h/ln	1745	0	0	1653	0	1767	1922	0	1910	1731	1832	0
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	9.2	0.1	0.0	14.0	5.5	8.3	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	2.1	0.0	9.2	0.1	0.0	14.0	5.5	8.3	0.0
Prop In Lane	0.16		0.16	0.96		1.00	1.00		0.18	1.00		0.00
Lane Grp Cap(c), veh/h	333	0	0	350	0	447	693	0	1117	593	1222	0
V/C Ratio(X)	0.06	0.00	0.00	0.14	0.00	0.47	0.00	0.00	0.47	0.48	0.33	0.00
Avail Cap(c_a), veh/h	706	0	0	716	0	844	1008	0	1117	735	1222	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	0.46	0.46	0.00
Uniform Delay (d), s/veh	31.8	0.0	0.0	32.3	0.0	28.9	7.7	0.0	10.7	7.3	6.4	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	0.9	0.0	3.9	0.0	0.0	5.8	1.6	2.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.8	0.0	0.0	32.3	0.0	29.2	7.7	0.0	12.1	7.4	6.7	0.0
LnGrp LOS	C			C		C	A		B	A	A	
Approach Vol, veh/h		19			261			524			683	
Approach Delay, s/veh		31.8			29.8			12.1			7.0	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.6	57.6		19.8	5.2	65.0		19.8				
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	7.5	16.0		2.8	2.1	10.3		11.2				
Green Ext Time (p_c), s	0.2	0.4		0.0	0.0	0.3		0.6				

Intersection Summary			
HCM 7th Control Delay, s/veh		13.1	
HCM 7th LOS		B	

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Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	3	7	0	360	220	3
Future Volume (vph)	3	7	0	360	220	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	507	310	4
Shared Lane Traffic (%)						
Lane Group Flow (vph)	14	0	0	507	314	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	

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Intersection	
Int Delay, s/veh	0.2

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	3	7	0	360	220	3
Future Vol, veh/h	3	7	0	360	220	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	507	310	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	847	334	328	0	-	0
Stage 1	326	-	-	-	-	-
Stage 2	521	-	-	-	-	-
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	532	777	1231	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	796	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	518	761	1216	-	-	-
Mov Cap-2 Maneuver	518	-	-	-	-	-
Stage 1	866	-	-	-	-	-
Stage 2	786	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s/v	10.51	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1216	-	667	-	-
HCM Lane V/C Ratio	-	-	0.021	-	-
HCM Control Delay (s/veh)	0	-	10.5	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

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Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	44	10	12	350	212	39
Future Volume (vph)	44	10	12	350	212	39
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				0.979	
Flt Protected	0.961			0.998		
Satd. Flow (prot)	1920	0	0	2086	1734	0
Flt Permitted	0.961			0.998		
Satd. Flow (perm)	1920	0	0	2086	1734	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)	62	14	17	493	299	55
Shared Lane Traffic (%)						
Lane Group Flow (vph)	76	0	0	510	354	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	

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Intersection	
Int Delay, s/veh	1.6

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	44	10	12	350	212	39
Future Vol, veh/h	44	10	12	350	212	39
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	62	14	17	493	299	55

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	853	326	354	0	-	0
Stage 1	326	-	-	-	-	-
Stage 2	527	-	-	-	-	-
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	330	715	1205	-	-	-
Stage 1	731	-	-	-	-	-
Stage 2	592	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	323	715	1205	-	-	-
Mov Cap-2 Maneuver	323	-	-	-	-	-
Stage 1	717	-	-	-	-	-
Stage 2	592	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s/v	17.67	0.27	0
HCM LOS	C		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	60	-	360	-	-
HCM Lane V/C Ratio	0.014	-	0.211	-	-
HCM Control Delay (s/veh)	8	0	17.7	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0	-	0.8	-	-

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	77	0	26	111	0	11
Future Volume (vph)	77	0	26	111	0	11
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				0.991		
Satd. Flow (prot)	1973	0	0	1879	1428	0
Flt Permitted				0.991		
Satd. Flow (perm)	1973	0	0	1879	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	37	156	0	15
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	0	193	15	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	

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Intersection	
Int Delay, s/veh	1.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	77	0	26	111	0	11
Future Vol, veh/h	77	0	26	111	0	11
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	37	156	0	15

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	108	0	338	108
Stage 1	-	-	-	-	108	-
Stage 2	-	-	-	-	230	-
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	-	-	1482	-	622	937
Stage 1	-	-	-	-	900	-
Stage 2	-	-	-	-	778	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1482	-	605	937
Mov Cap-2 Maneuver	-	-	-	-	605	-
Stage 1	-	-	-	-	900	-
Stage 2	-	-	-	-	757	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.42	8.91
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	937	-	-	342	-
HCM Lane V/C Ratio	0.017	-	-	0.025	-
HCM Control Delay (s/veh)	8.9	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

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Lane Group	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (vph)	55	267	657	46	219	754
Future Volume (vph)	55	267	657	46	219	754
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	0.97		0.99			
Frt		0.850	0.991			
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1725	1544	1816	0	1778	1872
Flt Permitted	0.950				0.185	
Satd. Flow (perm)	1688	1544	1816	0	346	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	290	714	50	238	820
Shared Lane Traffic (%)						
Lane Group Flow (vph)	60	290	764	0	238	820
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
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

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Lane Group	NWL	NWR	NET	NER	SWL	SWT
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	0.33	0.54	0.81		0.42	0.54
Control Delay (s/veh)	43.6	26.3	29.6		13.7	6.5
Queue Delay	0.0	0.0	0.0		0.0	0.0
Total Delay (s/veh)	43.6	26.3	29.6		13.7	6.5
Queue Length 50th (ft)	32	126	344		26	139
Queue Length 95th (ft)	74	196	#788		78	374
Internal Link Dist (ft)	347		382			449
Turn Bay Length (ft)	85				340	
Base Capacity (vph)	596	614	941		806	1683
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	0.47	0.81		0.30	0.49

Intersection Summary	
Area Type:	Other
Cycle Length: 123	
Actuated Cycle Length: 88.6	
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



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Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Traffic Volume (veh/h)	55	267	657	46	219	754
Future Volume (veh/h)	55	267	657	46	219	754
Initial Q (Qb), veh	0	0	0	0	0	0
Lane Width Adj.	1.00	1.00	1.00	1.00	1.00	1.00
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	290	714	50	238	820
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	255	342	798	56	299	1243
Arrive On Green	0.16	0.16	0.48	0.48	0.08	0.65
Sat Flow, veh/h	1641	1460	1679	118	1818	1909
Grp Volume(v), veh/h	60	290	0	764	238	820
Grp Sat Flow(s),veh/h/ln	1641	1460	0	1796	1818	1909
Q Serve(g_s), s	2.0	6.9	0.0	24.1	2.5	16.3
Cycle Q Clear(g_c), s	2.0	6.9	0.0	24.1	2.5	16.3
Prop In Lane	1.00	1.00		0.07	1.00	
Lane Grp Cap(c), veh/h	255	342	0	853	299	1243
V/C Ratio(X)	0.24	0.85	0.00	0.90	0.80	0.66
Avail Cap(c_a), veh/h	795	822	0	1305	1036	2497
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	22.9	22.7	0.0	14.8	26.3	6.6
Incr Delay (d2), s/veh	0.2	2.3	0.0	5.6	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	3.9	0.0	9.5	3.3	4.7
Unsig. Movement Delay, s/veh						
LnGrp Delay(d), s/veh	23.1	24.9	0.0	20.5	28.2	7.2
LnGrp LOS	C	C		C	C	A
Approach Vol, veh/h	350		764			1058
Approach Delay, s/veh	24.6		20.5			11.9
Approach LOS	C		C			B

Timer - Assigned Phs	1	2				6	8
Phs Duration (G+Y+Rc), s	10.9	35.4				46.3	15.6
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	4.5	26.1				18.3	8.9
Green Ext Time (p_c), s	0.5	3.4				4.2	0.8

Intersection Summary	
HCM 7th Control Delay, s/veh	17.0
HCM 7th LOS	B

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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	623	5	8	705	98
Future Volume (vph)	70	2	18	4	6	11	24	623	5	8	705	98
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	663	5	9	750	104
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	95	0	0	22	0	26	668	0	0	863	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	

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Intersection	
Int Delay, s/veh	5.4

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	623	5	8	705	98
Future Vol, veh/h	70	2	18	4	6	11	24	623	5	8	705	98
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	663	5	9	750	104

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1548	1546	814	1493	1596	673	860	0	0	670	0	0
Stage 1	825	825	-	718	718	-	-	-	-	-	-	-
Stage 2	723	721	-	774	877	-	-	-	-	-	-	-
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	130	161	414	102	107	455	781	-	-	920	-	-
Stage 1	439	465	-	420	433	-	-	-	-	-	-	-
Stage 2	488	507	-	391	366	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	112	152	409	90	101	452	777	-	-	918	-	-
Mov Cap-2 Maneuver	112	152	-	90	101	-	-	-	-	-	-	-
Stage 1	428	454	-	405	418	-	-	-	-	-	-	-
Stage 2	451	489	-	363	357	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	83.23	30.47	0.36	0.09
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	777	-	-	132	164	17	-	-
HCM Lane V/C Ratio	0.033	-	-	0.725	0.137	0.009	-	-
HCM Control Delay (s/veh)	9.8	-	-	83.2	30.5	9	0	-
HCM Lane LOS	A	-	-	F	D	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	4.1	0.5	0	-	-

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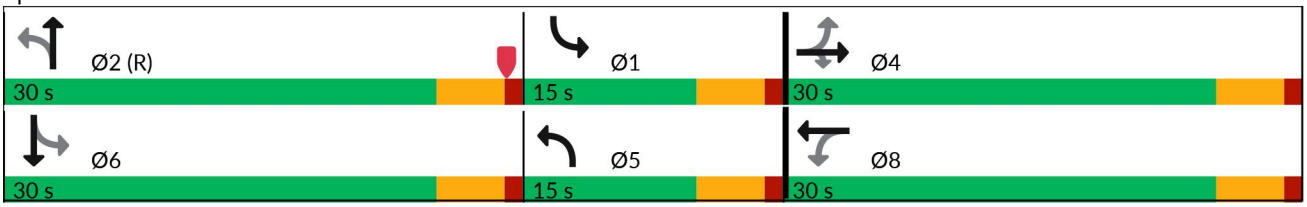
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	6	72	10	4	8	109	475	4	8	513	205
Future Volume (vph)	169	6	72	10	4	8	109	475	4	8	513	205
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-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		0.99	0.99		0.99	0.99	
Frt			0.850		0.949			0.999			0.957	
Flt Protected		0.954			0.978		0.950			0.950		
Satd. Flow (prot)	0	1759	1568	0	1790	0	1823	1916	0	1743	1741	0
Flt Permitted		0.716			0.855		0.133			0.351		
Satd. Flow (perm)	0	1298	1524	0	1562	0	255	1916	0	642	1741	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			102		9			1			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)	190	7	81	11	4	9	122	534	4	9	576	230
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	197	81	0	24	0	122	538	0	9	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												
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												
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		

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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		0.71	0.20		0.07		0.44	0.45		0.01	0.84	
Control Delay (s/veh)		41.1	4.4		15.8		19.9	12.9		7.2	28.8	
Queue Delay		0.0	0.0		0.0		0.0	0.3		0.0	0.0	
Total Delay (s/veh)		41.1	4.4		15.8		19.9	13.2		7.2	28.8	
Queue Length 50th (ft)		85	0		6		23	107		1	294	
Queue Length 95th (ft)		135	21		21		m0	223		7	#656	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		432	576		526		391	1185		579	954	
Starvation Cap Reductn		0	0		0		0	211		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		0.46	0.14		0.05		0.31	0.55		0.02	0.84	

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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	6	72	10	4	8	109	475	4	8	513	205
Future Volume (veh/h)	169	6	72	10	4	8	109	475	4	8	513	205
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	190	7	81	11	4	9	122	534	4	9	576	230
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	333	9	373	105	54	54	531	696	5	559	410	164
Arrive On Green	0.25	0.25	0.25	0.25	0.25	0.25	0.22	0.33	0.33	0.22	0.33	0.33
Sat Flow, veh/h	957	35	1493	142	217	215	2006	2087	16	1731	1230	491
Grp Volume(v), veh/h	197	0	81	24	0	0	122	0	538	9	0	806
Grp Sat Flow(s),veh/h/ln	992	0	1493	574	0	0	2006	0	2103	1731	0	1721
Q Serve(g_s), s	0.0	0.0	3.2	0.2	0.0	0.0	0.0	0.0	17.2	0.0	0.0	25.0
Cycle Q Clear(g_c), s	15.4	0.0	3.2	15.6	0.0	0.0	0.0	0.0	17.2	0.0	0.0	25.0
Prop In Lane	0.96		1.00	0.46		0.37	1.00		0.01	1.00		0.29
Lane Grp Cap(c), veh/h	342	0	373	213	0	0	531	0	701	559	0	574
V/C Ratio(X)	0.58	0.00	0.22	0.11	0.00	0.00	0.23	0.00	0.77	0.02	0.00	1.40
Avail Cap(c_a), veh/h	457	0	498	361	0	0	531	0	701	559	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	0.85	0.00	0.85	1.00	0.00	1.00
Uniform Delay (d), s/veh	26.9	0.0	22.3	22.5	0.0	0.0	23.0	0.0	22.4	17.5	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	6.8	0.0	0.0	192.5
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	3.3	0.0	1.1	0.3	0.0	0.0	1.7	0.0	9.3	0.1	0.0	40.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	27.5	0.0	22.4	22.6	0.0	0.0	23.1	0.0	29.2	17.5	0.0	217.5
LnGrp LOS	C		C	C			C		C	B		F
Approach Vol, veh/h		278			24			660			815	
Approach Delay, s/veh		26.0			22.6			28.0			215.3	
Approach LOS		C			C			C			F	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	21.3	30.0		23.7	21.3	30.0		23.7				
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	19.2		17.4	2.0	27.0		17.6				
Green Ext Time (p_c), s	0.0	0.7		0.4	0.0	0.0		0.0				

Intersection Summary			
HCM 7th Control Delay, s/veh		113.5	
HCM 7th LOS		F	

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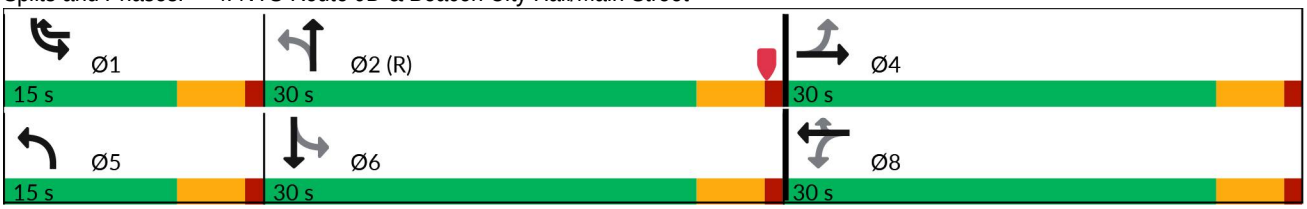
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	2	2	31	0	226	2	360	46	269	322	3
Future Volume (vph)	2	2	2	31	0	226	2	360	46	269	322	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-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		0.98			0.99	
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		0.898			0.752		0.550			0.376		
Satd. Flow (perm)	0	1598	0	0	1486	1614	1061	1832	0	697	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	35	0	254	2	409	52	292	350	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	9	0	0	35	254	2	461	0	292	353	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												
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		

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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			0.18	0.63	0.00	0.43		0.41	0.23	
Control Delay (s/veh)		20.6			28.2	28.8	6.5	14.3		8.2	5.2	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)		20.6			28.2	28.8	6.5	14.3		8.2	5.2	
Queue Length 50th (ft)		3			16	101	0	105		19	23	
Queue Length 95th (ft)		9			31	102	3	#295		m82	m83	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		534			495	410	862	1067		715	1477	
Starvation Cap Reductn		0			0	0	0	0		0	0	
Spillback Cap Reductn		0			0	0	0	25		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.02			0.07	0.62	0.00	0.44		0.41	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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	2	31	0	226	2	360	46	269	322	3
Future Volume (veh/h)	2	2	2	31	0	226	2	360	46	269	322	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	35	0	254	2	409	52	292	350	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	127	122	92	387	0	514	674	896	114	603	1121	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	350	675	513	1616	0	1833	1922	1718	218	1745	1814	16
Grp Volume(v), veh/h	9	0	0	35	0	254	2	0	461	292	0	353
Grp Sat Flow(s),veh/h/ln	1539	0	0	1616	0	1833	1922	0	1936	1745	0	1829
Q Serve(g_s), s	0.0	0.0	0.0	1.0	0.0	8.7	0.0	0.0	11.2	5.3	0.0	6.8
Cycle Q Clear(g_c), s	0.3	0.0	0.0	1.3	0.0	8.7	0.0	0.0	11.2	5.3	0.0	6.8
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	341	0	0	387	0	514	674	0	1009	603	0	1131
V/C Ratio(X)	0.03	0.00	0.00	0.09	0.00	0.49	0.00	0.00	0.46	0.48	0.00	0.31
Avail Cap(c_a), veh/h	564	0	0	633	0	795	927	0	1009	664	0	1131
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	0.52	0.00	0.52
Uniform Delay (d), s/veh	25.3	0.0	0.0	25.7	0.0	22.7	8.5	0.0	11.3	7.3	0.0	6.8
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	0.5	0.0	3.6	0.0	0.0	4.7	1.6	0.0	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	25.3	0.0	0.0	25.7	0.0	22.9	8.5	0.0	12.8	7.5	0.0	7.1
LnGrp LOS	C			C		C	A		B	A		A
Approach Vol, veh/h		9			289			463			645	
Approach Delay, s/veh		25.3			23.3			12.7			7.3	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.4	44.1		18.5	5.1	51.4		18.5				
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	7.3	13.2		2.3	2.0	8.8		10.7				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.6				

Intersection Summary		
HCM 7th Control Delay, s/veh	12.5	
HCM 7th LOS	B	

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Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	2	2	0	218	277	0
Future Volume (vph)	2	2	0	218	277	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	253	322	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	4	0	0	253	322	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

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Intersection	
Int Delay, s/veh	0.1

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	2	2	0	218	277	0
Future Vol, veh/h	2	2	0	218	277	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	253	322	0

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	607	356	339	0	-	0
Stage 1	339	-	-	-	-	-
Stage 2	267	-	-	-	-	-
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	644	759	1220	-	-	-
Stage 1	871	-	-	-	-	-
Stage 2	902	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	624	735	1201	-	-	-
Mov Cap-2 Maneuver	624	-	-	-	-	-
Stage 1	858	-	-	-	-	-
Stage 2	888	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s/veh	10.37	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	1201	-	675	-	-
HCM Lane V/C Ratio	-	-	0.007	-	-
HCM Control Delay (s/veh)	0	-	10.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

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Lane Group	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Volume (vph)	39	8	9	210	269	31
Future Volume (vph)	39	8	9	210	269	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	0.977				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)	45	9	10	244	313	36
Shared Lane Traffic (%)						
Lane Group Flow (vph)	54	0	0	254	349	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	

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Intersection	
Int Delay, s/veh	1.2

Movement	SBL	SBR	NEL	NET	SWT	SWR
Lane Configurations						
Traffic Vol, veh/h	39	8	9	210	269	31
Future Vol, veh/h	39	8	9	210	269	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	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	9	10	244	313	36

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	596	331	349	0	-	0
Stage 1	331	-	-	-	-	-
Stage 2	265	-	-	-	-	-
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	466	711	1210	-	-	-
Stage 1	728	-	-	-	-	-
Stage 2	779	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	462	711	1210	-	-	-
Mov Cap-2 Maneuver	462	-	-	-	-	-
Stage 1	721	-	-	-	-	-
Stage 2	779	-	-	-	-	-

Approach	SB	NE	SW
HCM Control Delay, s/v	13.25	0.33	0
HCM LOS	B		

Minor Lane/Major Mvmt	NEL	NET	SBLn1	SWT	SWR
Capacity (veh/h)	74	-	491	-	-
HCM Lane V/C Ratio	0.009	-	0.111	-	-
HCM Control Delay (s/veh)	8	0	13.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0	-	0.4	-	-

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	79	0	19	108	0	9
Future Volume (vph)	79	0	19	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	22	126	0	10
Shared Lane Traffic (%)						
Lane Group Flow (vph)	92	0	0	148	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

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Intersection	
Int Delay, s/veh	1

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	79	0	19	108	0	9
Future Vol, veh/h	79	0	19	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	22	126	0	10

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	92	0	262	92
Stage 1	-	-	-	-	92	-
Stage 2	-	-	-	-	170	-
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	-	696	958
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	836	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1503	-	685	958
Mov Cap-2 Maneuver	-	-	-	-	685	-
Stage 1	-	-	-	-	918	-
Stage 2	-	-	-	-	823	-

Approach	EB	WB	NB
HCM Control Delay, s/v	0	1.11	8.8
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	958	-	-	269	-
HCM Lane V/C Ratio	0.011	-	-	0.015	-
HCM Control Delay (s/veh)	8.8	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

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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	558	6	2	728	65
Future Volume (vph)	85	4	38	9	0	9	20	558	6	2	728	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												
Frt		0.959			0.932			0.998			0.988	
Flt Protected		0.968			0.976		0.950			0.950		
Satd. Flow (prot)	0	1812	0	0	1661	0	1770	1849	0	1814	1901	0
Flt Permitted		0.968			0.976		0.950			0.950		
Satd. Flow (perm)	0	1812	0	0	1661	0	1770	1849	0	1814	1901	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	587	6	2	766	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	18	0	21	593	0	2	834	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	558	6	2	728	65
Future Vol, veh/h	85	4	38	9	0	9	20	558	6	2	728	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	-	-	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	587	6	2	766	68

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1454	1463	823	1433	1494	617	843	0	0	608	0	0
Stage 1	813	813	-	647	647	-	-	-	-	-	-	-
Stage 2	641	650	-	787	847	-	-	-	-	-	-	-
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	149	178	406	106	123	490	793	-	-	971	-	-
Stage 1	446	470	-	442	467	-	-	-	-	-	-	-
Stage 2	534	537	-	369	378	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	140	169	398	88	117	479	787	-	-	958	-	-
Mov Cap-2 Maneuver	140	169	-	88	117	-	-	-	-	-	-	-
Stage 1	442	465	-	425	448	-	-	-	-	-	-	-
Stage 2	504	516	-	324	374	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	72.53	32.79	0.33	0.02
HCM LOS	F	D		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	787	-	-	174	148	958	-	-
HCM Lane V/C Ratio	0.027	-	-	0.767	0.128	0.002	-	-
HCM Control Delay (s/veh)	9.7	-	-	72.5	32.8	8.8	-	-
HCM Lane LOS	A	-	-	F	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	5	0.4	0	-	-

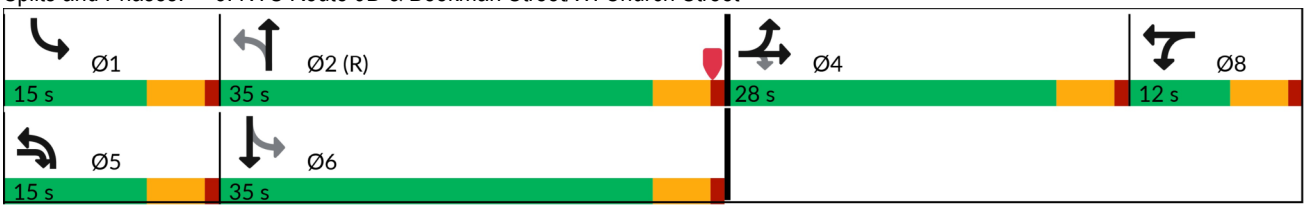
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	5	70	9	10	8	39	453	3	3	515	257
Future Volume (vph)	131	5	70	9	10	8	39	453	3	3	515	257
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-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		0.99	0.97		0.98		0.99	0.99		0.99	0.98	
Frt			0.850		0.959			0.999			0.950	
Flt Protected		0.954			0.984		0.950			0.950		
Satd. Flow (prot)	0	1714	1494	0	1828	0	1754	1844	0	1743	1692	0
Flt Permitted		0.954			0.984		0.128			0.425		
Satd. Flow (perm)	0	1711	1459	0	1827	0	236	1844	0	775	1692	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					9						30	
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)	141	5	75	10	11	9	42	487	3	3	554	276
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	146	75	0	30	0	42	490	0	3	830	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												
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	

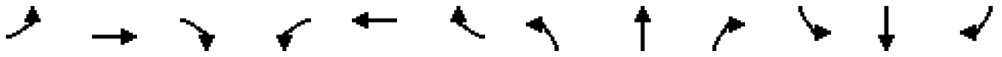
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases			4				2			6		
Detector Phase	4	4	5	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	3.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	8.0	10.0	10.0		8.0	15.0		8.0	15.0	
Total Split (s)	28.0	28.0	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		0.57	0.25		0.23		0.18	0.41		0.00	0.84	
Control Delay (s/veh)		43.3	20.8		35.3		8.5	8.7		9.6	29.7	
Queue Delay		0.0	0.0		0.0		0.0	0.2		0.0	0.0	
Total Delay (s/veh)		43.3	20.8		35.3		8.5	8.9		9.6	29.7	
Queue Length 50th (ft)		80	28		12		8	97		1	395	
Queue Length 95th (ft)		121	44		38		m18	142		5	#823	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		438	382		150		325	1188		620	988	
Starvation Cap Reductn		0	0		0		0	205		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	0.20		0.20		0.13	0.50		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: 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)	131	5	70	9	10	8	39	453	3	3	515	257
Future Volume (veh/h)	131	5	70	9	10	8	39	453	3	3	515	257
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	141	5	75	10	11	9	42	487	3	3	554	276
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	177	6	223	20	22	18	262	1256	8	520	661	329
Arrive On Green	0.13	0.13	0.13	0.03	0.03	0.03	0.02	0.62	0.62	0.00	0.60	0.60
Sat Flow, veh/h	1387	49	1491	694	763	625	1948	2031	13	1731	1103	550
Grp Volume(v), veh/h	146	0	75	30	0	0	42	0	490	3	0	830
Grp Sat Flow(s),veh/h/ln	1437	0	1491	2082	0	0	1948	0	2043	1731	0	1653
Q Serve(g_s), s	8.9	0.0	4.1	1.3	0.0	0.0	0.8	0.0	10.8	0.1	0.0	36.4
Cycle Q Clear(g_c), s	8.9	0.0	4.1	1.3	0.0	0.0	0.8	0.0	10.8	0.1	0.0	36.4
Prop In Lane	0.97		1.00	0.33		0.30	1.00		0.01	1.00		0.33
Lane Grp Cap(c), veh/h	183	0	223	61	0	0	262	0	1263	520	0	990
V/C Ratio(X)	0.80	0.00	0.34	0.49	0.00	0.00	0.16	0.00	0.39	0.01	0.00	0.84
Avail Cap(c_a), veh/h	367	0	413	162	0	0	437	0	1263	708	0	990
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	38.1	0.0	34.3	43.0	0.0	0.0	14.4	0.0	8.6	7.6	0.0	14.5
Incr Delay (d2), s/veh	3.0	0.0	0.3	2.3	0.0	0.0	0.1	0.0	0.8	0.0	0.0	8.5
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	3.2	0.0	1.5	0.7	0.0	0.0	0.3	0.0	4.6	0.0	0.0	14.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.1	0.0	34.6	45.3	0.0	0.0	14.5	0.0	9.4	7.6	0.0	23.0
LnGrp LOS	D		C	D			B		A	A		C
Approach Vol, veh/h		221			30			532			833	
Approach Delay, s/veh		38.9			45.3			9.8			22.9	
Approach LOS		D			D			A			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	60.7		16.5	7.0	58.9		7.6				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	30.0		23.0	10.0	30.0		7.0				
Max Q Clear Time (g_c+I1), s	2.1	12.8		10.9	2.8	38.4		3.3				
Green Ext Time (p_c), s	0.0	0.9		0.4	0.0	0.0		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	21.2	
HCM 7th 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	14	7	128	5	363	31	249	339	6
Future Volume (vph)	4	5	3	14	7	128	5	363	31	249	339	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			0.99	
Frt		0.966				0.850		0.988			0.997	
Flt Protected		0.983			0.968		0.950			0.950		
Satd. Flow (prot)	0	1778	0	0	1913	1647	1832	1855	0	1743	1847	0
Flt Permitted		0.908			0.822		0.530			0.370		
Satd. Flow (perm)	0	1642	0	0	1624	1566	1022	1855	0	679	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	15	8	141	6	459	39	283	385	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	23	141	6	498	0	283	392	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												
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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		0.08			0.10	0.38	0.00	0.42		0.42	0.26	
Control Delay (s/veh)		23.7			29.9	26.2	6.8	14.5		8.4	5.6	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.3	
Total Delay (s/veh)		23.7			29.9	26.2	6.8	14.5		8.4	5.9	
Queue Length 50th (ft)		8			13	69	1	112		16	23	
Queue Length 95th (ft)		15			29	80	5	273		m83	m100	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		550			541	389	843	1161		675	1475	
Starvation Cap Reductn		0			0	0	0	0		0	581	
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			0.04	0.36	0.01	0.43		0.42	0.44	

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	14	7	128	5	363	31	249	339	6
Future Volume (veh/h)	4	5	3	14	7	128	5	363	31	249	339	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	15	8	141	6	459	39	283	385	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	106	110	54	211	103	383	736	1114	95	641	1241	23
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.00	0.62	0.62	0.08	0.69	0.69
Sat Flow, veh/h	377	806	395	1058	756	1750	1922	1800	153	1731	1793	33
Grp Volume(v), veh/h	20	0	0	23	0	141	6	0	498	283	0	392
Grp Sat Flow(s),veh/h/ln	1578	0	0	1815	0	1750	1922	0	1953	1731	0	1826
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	6.2	0.1	0.0	11.7	4.9	0.0	7.6
Cycle Q Clear(g_c), s	0.9	0.0	0.0	0.8	0.0	6.2	0.1	0.0	11.7	4.9	0.0	7.6
Prop In Lane	0.35		0.25	0.65		1.00	1.00		0.08	1.00		0.02
Lane Grp Cap(c), veh/h	270	0	0	314	0	383	736	0	1209	641	0	1264
V/C Ratio(X)	0.07	0.00	0.00	0.07	0.00	0.37	0.01	0.00	0.41	0.44	0.00	0.31
Avail Cap(c_a), veh/h	564	0	0	663	0	728	941	0	1209	698	0	1264
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	33.9	0.0	0.0	33.9	0.0	30.2	6.4	0.0	8.8	5.8	0.0	5.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	1.0	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	0.4	0.0	0.0	0.0	0.0	4.8	1.4	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.0	0.0	0.0	33.9	0.0	30.4	6.4	0.0	9.8	5.9	0.0	5.8
LnGrp LOS	C			C		C	A		A	A		A
Approach Vol, veh/h		20			164			504			675	
Approach Delay, s/veh		34.0			30.9			9.8			5.8	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	60.7		17.3	5.4	67.3		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	35.0		30.0	10.0	35.0		30.0				
Max Q Clear Time (g_c+I1), s	6.9	13.7		2.9	2.1	9.6		8.2				
Green Ext Time (p_c), s	0.1	0.4		0.0	0.0	0.3		0.4				

Intersection Summary		
HCM 7th Control Delay, s/veh		10.7
HCM 7th LOS		B



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	6	19	7	4	5	27	722	6	6	669	107
Future Volume (vph)	64	6	19	7	4	5	27	722	6	6	669	107
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												
Frt		0.971			0.960			0.999			0.979	
Flt Protected		0.966			0.977		0.950			0.950		
Satd. Flow (prot)	0	1842	0	0	1693	0	1770	1923	0	1814	1915	0
Flt Permitted		0.966			0.977		0.950			0.950		
Satd. Flow (perm)	0	1842	0	0	1693	0	1770	1923	0	1814	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)	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)	70	7	21	8	4	5	29	785	7	7	727	116
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	98	0	0	17	0	29	792	0	7	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)	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

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	64	6	19	7	4	5	27	722	6	6	669	107
Future Vol, veh/h	64	6	19	7	4	5	27	722	6	6	669	107
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	-	-	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	70	7	21	8	4	5	29	785	7	7	727	116

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1652	1654	793	1596	1709	794	847	0	0	793	0	0
Stage 1	802	802	-	849	849	-	-	-	-	-	-	-
Stage 2	850	852	-	747	861	-	-	-	-	-	-	-
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	113	142	424	86	91	354	790	-	-	828	-	-
Stage 1	451	474	-	356	377	-	-	-	-	-	-	-
Stage 2	429	454	-	405	373	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	101	135	421	74	86	352	787	-	-	826	-	-
Mov Cap-2 Maneuver	101	135	-	74	86	-	-	-	-	-	-	-
Stage 1	446	468	-	342	363	-	-	-	-	-	-	-
Stage 2	400	437	-	375	368	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/veh	99.06	46.83	0.35	0.07
HCM LOS	F	E		

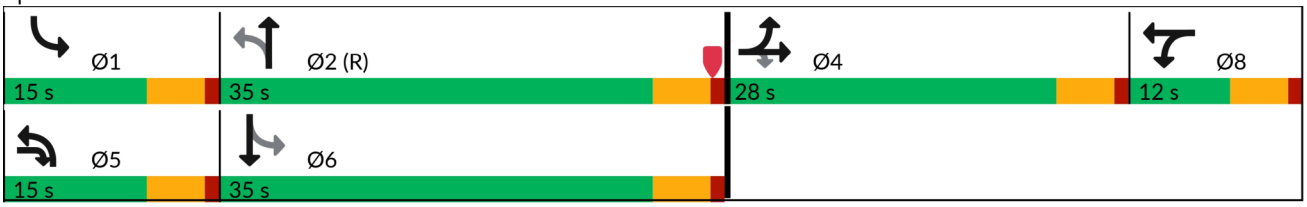
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	787	-	-	123	103	826	-	-
HCM Lane V/C Ratio	0.037	-	-	0.787	0.169	0.008	-	-
HCM Control Delay (s/veh)	9.8	-	-	99.1	46.8	9.4	-	-
HCM Lane LOS	A	-	-	F	E	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	4.6	0.6	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	314	13	68	2	8	7	85	434	13	5	530	160
Future Volume (vph)	314	13	68	2	8	7	85	434	13	5	530	160
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		0.99			0.98		0.99	0.99		0.99	0.99	
Frt			0.850		0.943			0.996			0.965	
Flt Protected		0.954			0.995		0.950			0.950		
Satd. Flow (prot)	0	1759	1568	0	1806	0	1690	1892	0	1743	1745	0
Flt Permitted		0.954			0.995		0.096			0.403		
Satd. Flow (perm)	0	1753	1568	0	1806	0	171	1892	0	739	1745	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					8			2			18	
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)	341	14	74	2	9	8	92	472	14	5	576	174
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	355	74	0	19	0	92	486	0	5	750	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												
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	0.14		0.15		0.45	0.43		0.01	0.84	
Control Delay (s/veh)		55.1	15.4		32.1		15.5	14.7		11.0	34.3	
Queue Delay		0.0	0.0		0.0		0.0	0.9		0.0	0.2	
Total Delay (s/veh)		55.1	15.4		32.1		15.5	15.7		11.0	34.5	
Queue Length 50th (ft)		188	27		6		26	158		1	333	
Queue Length 95th (ft)		#324	40		28		50	389		7	#744	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		449	591		147		272	1107		548	886	
Starvation Cap Reductn		0	0		0		0	364		0	0	
Spillback Cap Reductn		0	65		0		0	0		0	8	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.79	0.14		0.13		0.34	0.65		0.01	0.85	

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.	

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)	314	13	68	2	8	7	85	434	13	5	530	160
Future Volume (veh/h)	314	13	68	2	8	7	85	434	13	5	530	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	341	14	74	2	9	8	92	472	14	5	576	174
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	378	16	413	5	20	18	233	1069	32	427	649	196
Arrive On Green	0.22	0.22	0.22	0.02	0.02	0.02	0.04	0.53	0.53	0.00	0.49	0.49
Sat Flow, veh/h	1693	69	1558	216	971	863	1891	2018	60	1731	1319	399
Grp Volume(v), veh/h	355	0	74	19	0	0	92	0	486	5	0	750
Grp Sat Flow(s),veh/h/ln	1762	0	1558	2050	0	0	1891	0	2078	1731	0	1718
Q Serve(g_s), s	17.6	0.0	3.3	0.8	0.0	0.0	2.1	0.0	12.9	0.1	0.0	35.4
Cycle Q Clear(g_c), s	17.6	0.0	3.3	0.8	0.0	0.0	2.1	0.0	12.9	0.1	0.0	35.4
Prop In Lane	0.96		1.00	0.11		0.42	1.00		0.03	1.00		0.23
Lane Grp Cap(c), veh/h	393	0	413	43	0	0	233	0	1101	427	0	845
V/C Ratio(X)	0.90	0.00	0.18	0.44	0.00	0.00	0.39	0.00	0.44	0.01	0.00	0.89
Avail Cap(c_a), veh/h	450	0	463	159	0	0	365	0	1101	613	0	845
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	34.0	0.0	25.5	43.5	0.0	0.0	18.2	0.0	13.0	12.0	0.0	20.6
Incr Delay (d2), s/veh	18.3	0.0	0.1	2.6	0.0	0.0	0.4	0.0	1.1	0.0	0.0	13.3
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	9.4	0.0	1.2	0.4	0.0	0.0	0.9	0.0	6.0	0.0	0.0	16.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.3	0.0	25.6	46.2	0.0	0.0	18.6	0.0	14.1	12.0	0.0	33.9
LnGrp LOS	D		C	D			B		B	B		C
Approach Vol, veh/h		429			19			578			755	
Approach Delay, s/veh		47.7			46.2			14.8			33.7	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	52.7		25.1	8.7	49.3		6.9				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	30.0		23.0	10.0	30.0		7.0				
Max Q Clear Time (g_c+I1), s	2.1	14.9		19.6	4.1	37.4		2.8				
Green Ext Time (p_c), s	0.0	0.9		0.4	0.0	0.0		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	31.1	
HCM 7th 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	43	2	193	2	337	74	251	350	0
Future Volume (vph)	2	8	2	43	2	193	2	337	74	251	350	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		0.98				
Frt		0.979				0.850		0.973				
Flt Protected		0.992			0.954		0.950			0.950		
Satd. Flow (prot)	0	1825	0	0	1885	1647	1832	1810	0	1743	1853	0
Flt Permitted		0.959			0.721		0.527			0.344		
Satd. Flow (perm)	0	1764	0	0	1425	1566	1016	1810	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	47	2	212	3	427	94	285	398	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	0	49	212	3	521	0	285	398	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												
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	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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			0.24	0.51	0.00	0.47		0.43	0.27	
Control Delay (s/veh)		25.4			33.1	28.5	7.0	16.3		7.6	9.5	
Queue Delay		0.0			0.0	1.3	0.0	0.0		0.0	0.6	
Total Delay (s/veh)		25.4			33.1	29.8	7.0	16.3		7.6	10.1	
Queue Length 50th (ft)		9			27	104	0	136		56	91	
Queue Length 95th (ft)		15			51	113	3	300		m128	m286	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		590			475	413	814	1088		653	1473	
Starvation Cap Reductn		0			0	0	0	0		0	722	
Spillback Cap Reductn		0			0	76	0	12		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.03			0.10	0.63	0.00	0.48		0.44	0.53	

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: 50	
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	43	2	193	2	337	74	251	350	0
Future Volume (veh/h)	2	8	2	43	2	193	2	337	74	251	350	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	47	2	212	3	427	94	285	398	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	67	220	45	336	13	445	693	917	202	592	1222	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	126	1344	276	1574	80	1767	1922	1565	345	1731	1832	0
Grp Volume(v), veh/h	19	0	0	49	0	212	3	0	521	285	398	0
Grp Sat Flow(s),veh/h/ln	1745	0	0	1653	0	1767	1922	0	1910	1731	1832	0
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	9.2	0.1	0.0	14.0	5.5	8.3	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	2.1	0.0	9.2	0.1	0.0	14.0	5.5	8.3	0.0
Prop In Lane	0.16		0.16	0.96		1.00	1.00		0.18	1.00		0.00
Lane Grp Cap(c), veh/h	332	0	0	349	0	445	693	0	1119	592	1222	0
V/C Ratio(X)	0.06	0.00	0.00	0.14	0.00	0.48	0.00	0.00	0.47	0.48	0.33	0.00
Avail Cap(c_a), veh/h	614	0	0	625	0	744	902	0	1119	640	1222	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	0.53	0.53	0.00
Uniform Delay (d), s/veh	31.8	0.0	0.0	32.3	0.0	28.9	7.7	0.0	10.6	7.3	6.4	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	0.9	0.0	3.9	0.0	0.0	5.8	1.6	2.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.8	0.0	0.0	32.4	0.0	29.2	7.7	0.0	12.0	7.4	6.7	0.0
LnGrp LOS	C			C		C	A		B	A	A	
Approach Vol, veh/h		19			261			524			683	
Approach Delay, s/veh		31.8			29.8			12.0			7.0	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.5	57.7		19.7	5.2	65.0		19.7				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	35.0		30.0	10.0	35.0		30.0				
Max Q Clear Time (g_c+I1), s	7.5	16.0		2.8	2.1	10.3		11.2				
Green Ext Time (p_c), s	0.1	0.4		0.0	0.0	0.3		0.6				

Intersection Summary			
HCM 7th Control Delay, s/veh		13.1	
HCM 7th 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	623	5	8	705	98
Future Volume (vph)	70	2	18	4	6	11	24	623	5	8	705	98
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												
Frt		0.973			0.926			0.999			0.982	
Flt Protected		0.963			0.991		0.950			0.950		
Satd. Flow (prot)	0	1826	0	0	1766	0	1770	1923	0	1814	1937	0
Flt Permitted		0.963			0.991		0.950			0.950		
Satd. Flow (perm)	0	1826	0	0	1766	0	1770	1923	0	1814	1937	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	663	5	9	750	104
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	95	0	0	22	0	26	668	0	9	854	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	5.3

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	623	5	8	705	98
Future Vol, veh/h	70	2	18	4	6	11	24	623	5	8	705	98
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	-	-	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	663	5	9	750	104

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	1548	1546	814	1493	1596	673	860	0	0	670	0	0
Stage 1	825	825	-	718	718	-	-	-	-	-	-	-
Stage 2	723	721	-	774	877	-	-	-	-	-	-	-
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	130	161	414	102	107	455	781	-	-	920	-	-
Stage 1	439	465	-	420	433	-	-	-	-	-	-	-
Stage 2	488	507	-	391	366	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	113	153	409	91	101	452	777	-	-	918	-	-
Mov Cap-2 Maneuver	113	153	-	91	101	-	-	-	-	-	-	-
Stage 1	432	458	-	405	418	-	-	-	-	-	-	-
Stage 2	451	489	-	366	361	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/veh	81.74	30.26	0.36	0.09
HCM LOS	F	D		

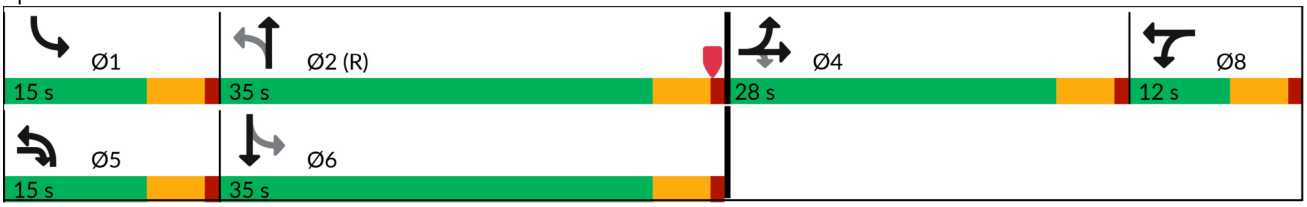
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	777	-	-	133	165	918	-	-
HCM Lane V/C Ratio	0.033	-	-	0.719	0.136	0.009	-	-
HCM Control Delay (s/veh)	9.8	-	-	81.7	30.3	9	-	-
HCM Lane LOS	A	-	-	F	D	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	4.1	0.5	0	-	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	6	72	10	4	8	109	475	4	8	513	205
Future Volume (vph)	169	6	72	10	4	8	109	475	4	8	513	205
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		0.97	0.97		0.96		0.99	0.99		0.99	0.99	
Frt			0.850		0.949			0.999			0.957	
Flt Protected		0.954			0.978		0.950			0.950		
Satd. Flow (prot)	0	1759	1568	0	1755	0	1823	1916	0	1743	1741	0
Flt Permitted		0.954			0.978		0.110			0.402		
Satd. Flow (perm)	0	1724	1522	0	1751	0	211	1916	0	735	1741	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					9						24	
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)	190	7	81	11	4	9	122	534	4	9	576	230
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	197	81	0	24	0	122	538	0	9	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												
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												
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		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	0.22		0.20		0.48	0.43		0.01	0.84	
Control Delay (s/veh)		45.4	19.3		33.1		19.9	10.1		9.7	30.9	
Queue Delay		0.0	0.0		0.0		0.0	0.4		0.0	0.0	
Total Delay (s/veh)		45.4	19.3		33.1		19.9	10.6		9.7	30.9	
Queue Length 50th (ft)		107	35		8		17	81		1	292	
Queue Length 95th (ft)		156	41		32		m82	237		10	#811	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		449	430		144		320	1241		591	959	
Starvation Cap Reductn		0	0		0		0	306		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	0.19		0.17		0.38	0.58		0.02	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: 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)	169	6	72	10	4	8	109	475	4	8	513	205
Future Volume (veh/h)	169	6	72	10	4	8	109	475	4	8	513	205
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	190	7	81	11	4	9	122	534	4	9	576	230
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	255	9	292	23	8	19	299	1244	9	475	686	274
Arrive On Green	0.15	0.15	0.15	0.03	0.03	0.03	0.05	0.60	0.60	0.01	0.56	0.56
Sat Flow, veh/h	1699	63	1466	911	331	745	2006	2087	16	1731	1232	492
Grp Volume(v), veh/h	197	0	81	24	0	0	122	0	538	9	0	806
Grp Sat Flow(s),veh/h/ln	1762	0	1466	1987	0	0	2006	0	2103	1731	0	1724
Q Serve(g_s), s	9.6	0.0	4.2	1.1	0.0	0.0	2.3	0.0	12.5	0.2	0.0	35.0
Cycle Q Clear(g_c), s	9.6	0.0	4.2	1.1	0.0	0.0	2.3	0.0	12.5	0.2	0.0	35.0
Prop In Lane	0.96		1.00	0.46		0.37	1.00		0.01	1.00		0.29
Lane Grp Cap(c), veh/h	264	0	292	50	0	0	299	0	1253	475	0	960
V/C Ratio(X)	0.75	0.00	0.28	0.48	0.00	0.00	0.41	0.00	0.43	0.02	0.00	0.84
Avail Cap(c_a), veh/h	450	0	446	155	0	0	430	0	1253	656	0	960
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	36.6	0.0	30.8	43.3	0.0	0.0	15.7	0.0	9.9	9.1	0.0	16.6
Incr Delay (d2), s/veh	1.6	0.0	0.2	2.7	0.0	0.0	0.3	0.0	0.9	0.0	0.0	8.7
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	4.2	0.0	1.5	0.6	0.0	0.0	1.0	0.0	5.5	0.1	0.0	14.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.2	0.0	31.0	46.0	0.0	0.0	16.0	0.0	10.8	9.1	0.0	25.3
LnGrp LOS	D		C	D			B		B	A		C
Approach Vol, veh/h		278			24			660			815	
Approach Delay, s/veh		36.1			46.0			11.8			25.2	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	58.6		18.5	9.1	55.1		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	14.5		11.6	4.3	37.0		3.1				
Green Ext Time (p_c), s	0.0	1.0		0.5	0.0	0.0		0.0				

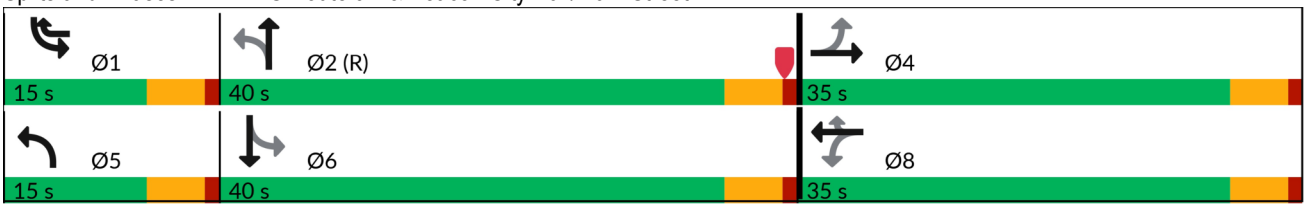
Intersection Summary												
HCM 7th Control Delay, s/veh			22.2									
HCM 7th LOS			C									

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	2	2	31	0	226	2	360	46	269	322	3
Future Volume (vph)	2	2	2	31	0	226	2	360	46	269	322	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				0.96		0.98			0.99	
Frt		0.955				0.850		0.983			0.999	
Flt Protected		0.984			0.950		0.950			0.950		
Satd. Flow (prot)	0	1749	0	0	1877	1663	1832	1829	0	1760	1851	0
Flt Permitted		0.921			0.752		0.550			0.383		
Satd. Flow (perm)	0	1637	0	0	1486	1611	1061	1829	0	710	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	35	0	254	2	409	52	292	350	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	9	0	0	35	254	2	461	0	292	353	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												
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		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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		0.03			0.16	0.60	0.00	0.42		0.41	0.23	
Control Delay (s/veh)		23.1			31.5	31.1	7.0	14.8		9.3	6.0	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.2	
Total Delay (s/veh)		23.1			31.5	31.1	7.0	14.8		9.3	6.2	
Queue Length 50th (ft)		3			19	127	0	116		16	19	
Queue Length 95th (ft)		11			39	140	3	290		m103	m94	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		547			495	421	838	1094		711	1475	
Starvation Cap Reductn		0			0	0	0	0		0	572	
Spillback Cap Reductn		0			0	0	0	32		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.02			0.07	0.60	0.00	0.43		0.41	0.39	

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	31	0	226	2	360	46	269	322	3
Future Volume (veh/h)	2	2	2	31	0	226	2	360	46	269	322	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	35	0	254	2	409	52	292	350	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	116	113	88	358	0	477	716	987	125	630	1196	10
Arrive On Green	0.17	0.17	0.17	0.17	0.00	0.17	0.00	0.57	0.57	0.09	0.66	0.66
Sat Flow, veh/h	365	654	509	1613	0	1832	1922	1719	219	1745	1814	16
Grp Volume(v), veh/h	9	0	0	35	0	254	2	0	461	292	0	353
Grp Sat Flow(s),veh/h/ln	1528	0	0	1613	0	1832	1922	0	1937	1745	0	1829
Q Serve(g_s), s	0.0	0.0	0.0	1.2	0.0	10.7	0.0	0.0	12.0	5.7	0.0	7.3
Cycle Q Clear(g_c), s	0.4	0.0	0.0	1.6	0.0	10.7	0.0	0.0	12.0	5.7	0.0	7.3
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	317	0	0	358	0	477	716	0	1113	630	0	1206
V/C Ratio(X)	0.03	0.00	0.00	0.10	0.00	0.53	0.00	0.00	0.41	0.46	0.00	0.29
Avail Cap(c_a), veh/h	551	0	0	616	0	772	927	0	1113	673	0	1206
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	0.53	0.00	0.53
Uniform Delay (d), s/veh	31.0	0.0	0.0	31.4	0.0	28.7	8.1	0.0	10.7	7.0	0.0	6.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.3	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	0.2	0.0	0.0	0.6	0.0	4.7	0.0	0.0	5.1	1.8	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.0	0.0	0.0	31.5	0.0	29.0	8.1	0.0	11.8	7.1	0.0	6.8
LnGrp LOS	C			C		C	A		B	A		A
Approach Vol, veh/h		9			289			463			645	
Approach Delay, s/veh		31.0			29.3			11.8			7.0	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.8	56.7		20.5	5.1	64.3		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	35.0		30.0	10.0	35.0		30.0				
Max Q Clear Time (g_c+I1), s	7.7	14.0		2.4	2.0	9.3		12.7				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.6				

Intersection Summary			
HCM 7th Control Delay, s/veh		13.3	
HCM 7th LOS		B	

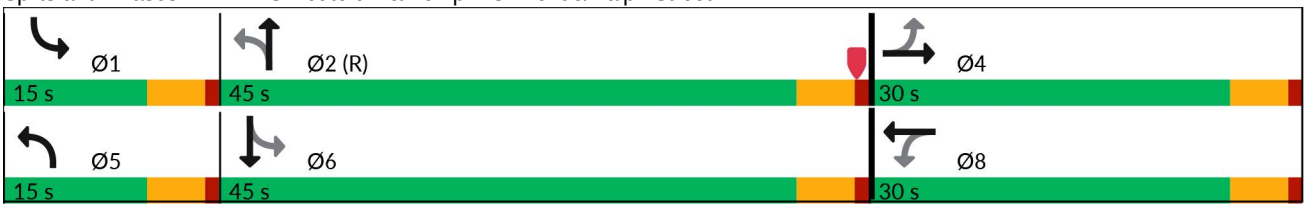
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	76	4	38	9	0	9	20	544	6	2	725	54
Future Volume (vph)	76	4	38	9	0	9	20	544	6	2	725	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	12	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		0.97			0.95			0.99			0.99	
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		0.251			0.399		
Satd. Flow (perm)	0	1445	0	0	1420	0	468	1848	0	762	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	573	6	2	763	57
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	124	0	0	18	0	21	579	0	2	820	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	
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	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	0.41		0.00	0.59	
Control Delay (s/veh)		43.9			0.5		3.5	6.4		3.5	9.9	
Queue Delay		0.0			0.0		0.0	1.7		0.0	0.0	
Total Delay (s/veh)		43.9			0.5		3.5	8.1		3.5	9.9	
Queue Length 50th (ft)		54			0		2	86		0	146	
Queue Length 95th (ft)		104			0		9	251		2	437	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		420			455		505	1387		704	1388	
Starvation Cap Reductn		0			0		0	609		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



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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	544	6	2	725	54
Future Volume (veh/h)	76	4	38	9	0	9	20	544	6	2	725	54
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00
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	573	6	2	763	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	447	1333	14	627	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	19	1968	1945	145
Grp Volume(v), veh/h	124	0	0	18	0	0	21	0	579	2	0	820
Grp Sat Flow(s),veh/h/ln	1608	0	0	1660	0	0	1781	0	1880	1968	0	2090
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	447	0	1347	627	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	621	0	1347	843	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	0.93	0.00	0.93	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	3.9	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	6.2	4.5	0.0	8.0
LnGrp LOS	D			D			A		A	A		A
Approach Vol, veh/h		124			18			600			822	
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 7th Control Delay, s/veh		10.0	
HCM 7th LOS		B	

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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	661	81
Future Volume (vph)	53	6	19	7	4	5	27	705	6	6	661	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		0.98			0.99			0.99			0.99	
Frt		0.967			0.960			0.999			0.984	
Flt Protected		0.967			0.977		0.950			0.950		
Satd. Flow (prot)	0	1823	0	0	1681	0	1770	1922	0	1814	1919	0
Flt Permitted		0.787			0.886		0.254			0.299		
Satd. Flow (perm)	0	1476	0	0	1522	0	473	1922	0	571	1919	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	718	88
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	17	0	29	773	0	7	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
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	
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	

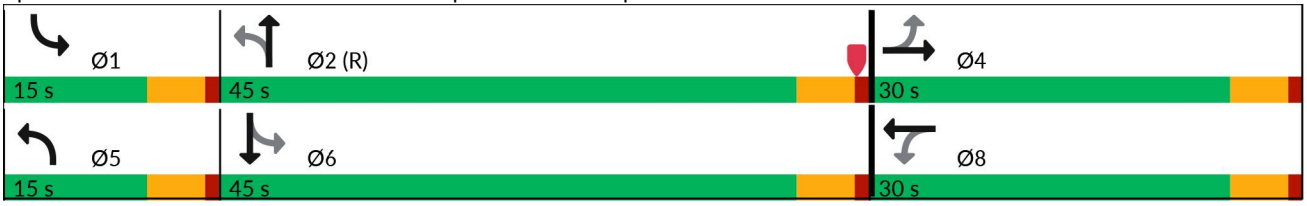
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		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		0.44			0.09		0.06	0.51		0.01	0.56	
Control Delay (s/veh)		34.6			26.0		3.0	5.1		4.6	11.3	
Queue Delay		0.0			0.0		0.0	0.3		0.0	0.8	
Total Delay (s/veh)		34.6			26.0		3.0	5.4		4.6	12.1	
Queue Length 50th (ft)		37			6		1	33		1	206	
Queue Length 95th (ft)		69			21		m6	314		6	523	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		423			426		518	1503		590	1421	
Starvation Cap Reductn		0			0		0	272		0	0	
Spillback Cap Reductn		3			0		0	0		0	324	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.20			0.04		0.06	0.63		0.01	0.73	

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



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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	661	81
Future Volume (veh/h)	53	6	19	7	4	5	27	705	6	6	661	81
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00
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	718	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	495	1438	13	656	1370	168
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	1863	228
Grp Volume(v), veh/h	86	0	0	17	0	0	29	0	773	7	0	806
Grp Sat Flow(s),veh/h/ln	1681	0	0	1750	0	0	1781	0	1942	1968	0	2092
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	14.9
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	14.9
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	495	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	663	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	5.5
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			D			A		A	A		A
Approach Vol, veh/h		86			17			802			813	
Approach Delay, s/veh		40.5			38.4			1.4			6.4	
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	16.9		2.8				
Green Ext Time (p_c), s	0.0	1.8		0.1	0.0	2.0		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	6.1	
HCM 7th LOS	A	

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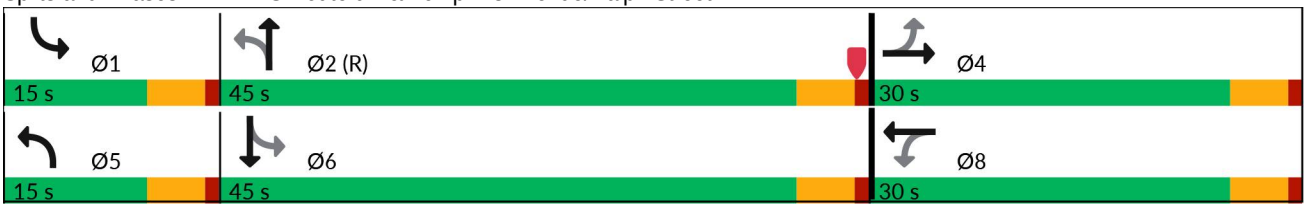
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	2	18	4	6	11	24	608	5	8	699	79
Future Volume (vph)	61	2	18	4	6	11	24	608	5	8	699	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	13	12	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			0.98			0.99			0.99	
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		0.251			0.359		
Satd. Flow (perm)	0	1422	0	0	1656	0	468	1923	0	685	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	647	5	9	744	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	86	0	0	22	0	26	652	0	9	828	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	
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	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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			0.10		0.06	0.43		0.01	0.56	
Control Delay (s/veh)		36.0			21.0		4.4	7.5		4.6	10.6	
Queue Delay		0.0			0.0		0.0	1.3		0.0	0.0	
Total Delay (s/veh)		36.0			21.0		4.4	8.8		4.6	10.6	
Queue Length 50th (ft)		38			5		2	88		1	128	
Queue Length 95th (ft)		70			23		14	365		7	541	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		406			468		514	1500		666	1470	
Starvation Cap Reductn		0			0		0	607		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



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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	608	5	8	699	79
Future Volume (veh/h)	61	2	18	4	6	11	24	608	5	8	699	79
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00
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	647	5	9	744	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	478	1428	11	619	1387	157
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	1928	15	1968	1896	214
Grp Volume(v), veh/h	86	0	0	22	0	0	26	0	652	9	0	828
Grp Sat Flow(s),veh/h/ln	1656	0	0	1716	0	0	1781	0	1942	1968	0	2110
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	15.6
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	15.6
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	478	0	1439	619	0	1544
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	0.54
Avail Cap(c_a), veh/h	519	0	0	512	0	0	647	0	1439	824	0	1544
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	5.8
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	6.7
LnGrp LOS	D			D			A		A	A		A
Approach Vol, veh/h		86			22			678			837	
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	17.6		3.0				
Green Ext Time (p_c), s	0.0	1.4		0.1	0.0	2.0		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	8.3	
HCM 7th LOS	A	

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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	558	6	2	728	65
Future Volume (vph)	85	4	38	9	0	9	20	558	6	2	728	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			0.96			0.99		0.99	0.99	
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	1896	0
Flt Permitted		0.788			0.883		0.230			0.383		
Satd. Flow (perm)	0	1448	0	0	1455	0	428	1848	0	727	1896	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	587	6	2	766	68
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	133	0	0	18	0	21	593	0	2	834	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	
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	

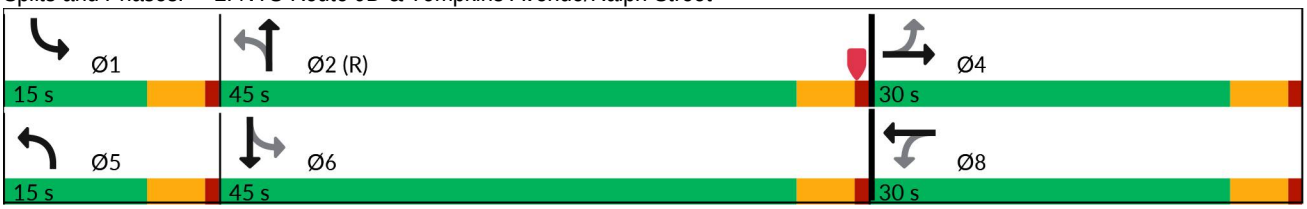
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		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		0.59			0.06		0.05	0.43		0.00	0.62	
Control Delay (s/veh)		39.2			0.4		4.8	6.4		5.0	12.6	
Queue Delay		0.0			0.0		0.0	0.1		0.0	3.2	
Total Delay (s/veh)		39.2			0.4		4.8	6.5		5.0	15.8	
Queue Length 50th (ft)		60			0		2	99		0	158	
Queue Length 95th (ft)		102			0		m11	175		3	#623	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		419			465		469	1348		665	1343	
Starvation Cap Reductn		0			0		0	173		0	0	
Spillback Cap Reductn		4			17		0	0		0	395	
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



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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	558	6	2	728	65
Future Volume (veh/h)	85	4	38	9	0	9	20	558	6	2	728	65
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00
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	587	6	2	766	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	415	1293	13	702	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	593	2	0	834
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	19.0
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	19.0
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	415	0	1306	702	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	588	0	1306	918	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	7.5
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			C			A		A	A		A
Approach Vol, veh/h		133			18			614			836	
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	21.0		2.8				
Green Ext Time (p_c), s	0.0	1.3		0.2	0.0	2.0		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	8.8	
HCM 7th LOS	A	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	131	5	70	9	10	8	39	453	3	3	515	257
Future Volume (vph)	131	5	70	9	10	8	39	453	3	3	515	257
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		0.99	0.97		0.98		0.99	0.99		0.99	0.98	
Frt			0.850		0.959			0.999			0.950	
Flt Protected		0.954			0.984		0.950			0.950		
Satd. Flow (prot)	0	1714	1494	0	1828	0	1754	1844	0	1743	1692	0
Flt Permitted		0.954			0.984		0.128			0.425		
Satd. Flow (perm)	0	1711	1459	0	1827	0	236	1844	0	775	1692	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					9						30	
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)	141	5	75	10	11	9	42	487	3	3	554	276
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	146	75	0	30	0	42	490	0	3	830	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												
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	

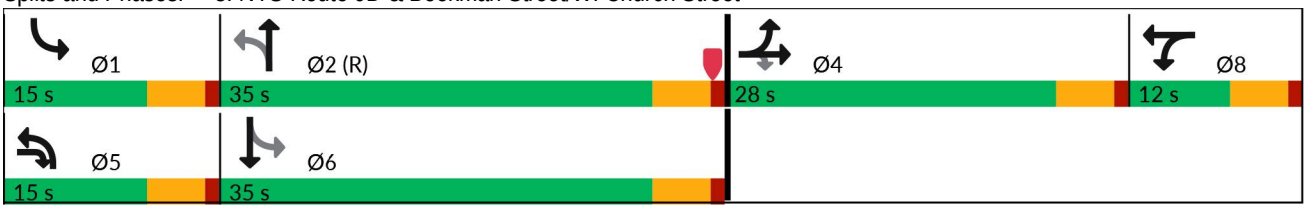
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases			4				2			6		
Detector Phase	4	4	5	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	3.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	8.0	10.0	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		0.57	0.25		0.23		0.18	0.41		0.00	0.84	
Control Delay (s/veh)		43.3	20.8		35.3		8.5	8.7		6.6	23.2	
Queue Delay		0.0	0.0		0.0		0.0	0.2		0.0	0.0	
Total Delay (s/veh)		43.3	20.8		35.3		8.5	8.9		6.6	23.2	
Queue Length 50th (ft)		80	28		12		8	97		0	403	
Queue Length 95th (ft)		121	44		38		m18	142		m0	#801	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		438	382		150		325	1188		620	988	
Starvation Cap Reductn		0	0		0		0	205		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	0.20		0.20		0.13	0.50		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: 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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	131	5	70	9	10	8	39	453	3	3	515	257
Future Volume (veh/h)	131	5	70	9	10	8	39	453	3	3	515	257
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	141	5	75	10	11	9	42	487	3	3	554	276
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	177	6	223	20	22	18	262	1256	8	520	661	329
Arrive On Green	0.13	0.13	0.13	0.03	0.03	0.03	0.02	0.62	0.62	0.00	0.60	0.60
Sat Flow, veh/h	1387	49	1491	694	763	625	1948	2031	13	1731	1103	550
Grp Volume(v), veh/h	146	0	75	30	0	0	42	0	490	3	0	830
Grp Sat Flow(s),veh/h/ln	1437	0	1491	2082	0	0	1948	0	2043	1731	0	1653
Q Serve(g_s), s	8.9	0.0	4.1	1.3	0.0	0.0	0.8	0.0	10.8	0.1	0.0	36.4
Cycle Q Clear(g_c), s	8.9	0.0	4.1	1.3	0.0	0.0	0.8	0.0	10.8	0.1	0.0	36.4
Prop In Lane	0.97		1.00	0.33		0.30	1.00		0.01	1.00		0.33
Lane Grp Cap(c), veh/h	183	0	223	61	0	0	262	0	1263	520	0	990
V/C Ratio(X)	0.80	0.00	0.34	0.49	0.00	0.00	0.16	0.00	0.39	0.01	0.00	0.84
Avail Cap(c_a), veh/h	367	0	413	162	0	0	437	0	1263	708	0	990
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	0.75	0.00	0.75
Uniform Delay (d), s/veh	38.1	0.0	34.3	43.0	0.0	0.0	14.4	0.0	8.6	7.6	0.0	14.5
Incr Delay (d2), s/veh	3.0	0.0	0.3	2.3	0.0	0.0	0.1	0.0	0.8	0.0	0.0	6.5
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	3.2	0.0	1.5	0.7	0.0	0.0	0.3	0.0	4.6	0.0	0.0	13.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	41.1	0.0	34.6	45.3	0.0	0.0	14.5	0.0	9.4	7.6	0.0	21.0
LnGrp LOS	D		C	D			B		A	A		C
Approach Vol, veh/h		221			30			532			833	
Approach Delay, s/veh		38.9			45.3			9.8			21.0	
Approach LOS		D			D			A			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.2	60.7		16.5	7.0	58.9		7.6				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	30.0		23.0	10.0	30.0		7.0				
Max Q Clear Time (g_c+I1), s	2.1	12.8		10.9	2.8	38.4		3.3				
Green Ext Time (p_c), s	0.0	0.9		0.4	0.0	0.0		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	20.2	
HCM 7th LOS	C	

Notes

User approved pedestrian interval to be less than phase max green.

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	5	3	14	7	128	5	363	31	249	339	6
Future Volume (vph)	4	5	3	14	7	128	5	363	31	249	339	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			0.99	
Frt		0.966				0.850		0.988			0.997	
Flt Protected		0.983			0.968		0.950			0.950		
Satd. Flow (prot)	0	1778	0	0	1913	1647	1832	1855	0	1743	1847	0
Flt Permitted		0.908			0.822		0.530			0.370		
Satd. Flow (perm)	0	1642	0	0	1624	1566	1022	1855	0	679	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	15	8	141	6	459	39	283	385	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	0	0	23	141	6	498	0	283	392	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												
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	

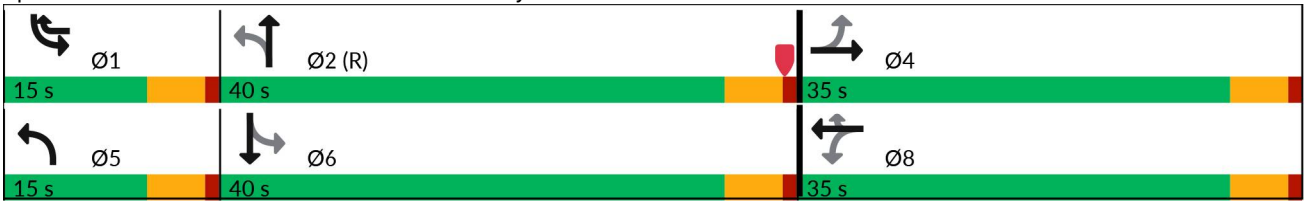
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	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		0.08			0.10	0.38	0.00	0.42		0.42	0.26	
Control Delay (s/veh)		23.7			29.9	26.2	6.8	14.5		8.4	5.6	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.3	
Total Delay (s/veh)		23.7			29.9	26.2	6.8	14.5		8.4	5.9	
Queue Length 50th (ft)		8			13	69	1	112		16	23	
Queue Length 95th (ft)		15			29	80	5	273		m83	m101	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		550			541	389	843	1161		675	1475	
Starvation Cap Reductn		0			0	0	0	0		0	581	
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			0.04	0.36	0.01	0.43		0.42	0.44	

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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	4	5	3	14	7	128	5	363	31	249	339	6
Future Volume (veh/h)	4	5	3	14	7	128	5	363	31	249	339	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	15	8	141	6	459	39	283	385	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	106	110	54	211	103	383	736	1114	95	641	1241	23
Arrive On Green	0.14	0.14	0.14	0.14	0.14	0.14	0.00	0.62	0.62	0.08	0.69	0.69
Sat Flow, veh/h	377	806	395	1058	756	1750	1922	1800	153	1731	1793	33
Grp Volume(v), veh/h	20	0	0	23	0	141	6	0	498	283	0	392
Grp Sat Flow(s),veh/h/ln	1578	0	0	1815	0	1750	1922	0	1953	1731	0	1826
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	6.2	0.1	0.0	11.7	4.9	0.0	7.6
Cycle Q Clear(g_c), s	0.9	0.0	0.0	0.8	0.0	6.2	0.1	0.0	11.7	4.9	0.0	7.6
Prop In Lane	0.35		0.25	0.65		1.00	1.00		0.08	1.00		0.02
Lane Grp Cap(c), veh/h	270	0	0	314	0	383	736	0	1209	641	0	1264
V/C Ratio(X)	0.07	0.00	0.00	0.07	0.00	0.37	0.01	0.00	0.41	0.44	0.00	0.31
Avail Cap(c_a), veh/h	564	0	0	663	0	728	941	0	1209	698	0	1264
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	33.9	0.0	0.0	33.9	0.0	30.2	6.4	0.0	8.8	5.8	0.0	5.4
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	1.0	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	0.4	0.0	0.0	0.0	0.0	4.8	1.4	0.0	2.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	34.0	0.0	0.0	33.9	0.0	30.4	6.4	0.0	9.8	5.9	0.0	5.8
LnGrp LOS	C			C		C	A		A	A		A
Approach Vol, veh/h		20			164			504			675	
Approach Delay, s/veh		34.0			30.9			9.8			5.8	
Approach LOS		C			C			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.0	60.7		17.3	5.4	67.3		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	35.0		30.0	10.0	35.0		30.0				
Max Q Clear Time (g_c+I1), s	6.9	13.7		2.9	2.1	9.6		8.2				
Green Ext Time (p_c), s	0.1	0.4		0.0	0.0	0.3		0.4				

Intersection Summary		
HCM 7th Control Delay, s/veh	10.7	
HCM 7th LOS	B	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	6	19	7	4	5	27	722	6	6	669	107
Future Volume (vph)	64	6	19	7	4	5	27	722	6	6	669	107
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			0.99			0.99	
Frt		0.971			0.960			0.999			0.979	
Flt Protected		0.966			0.977		0.950			0.950		
Satd. Flow (prot)	0	1831	0	0	1681	0	1770	1923	0	1814	1908	0
Flt Permitted		0.778			0.889		0.231			0.285		
Satd. Flow (perm)	0	1466	0	0	1527	0	430	1923	0	544	1908	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			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)	70	7	21	8	4	5	29	785	7	7	727	116
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	98	0	0	17	0	29	792	0	7	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)	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	
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	

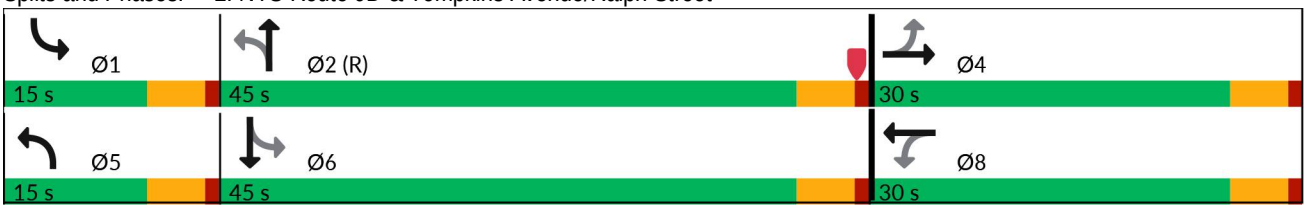
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		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			0.08		0.07	0.53		0.01	0.60	
Control Delay (s/veh)		37.4			25.5		4.2	10.0		4.6	12.4	
Queue Delay		0.4			0.0		0.0	0.7		0.0	39.1	
Total Delay (s/veh)		37.8			25.6		4.2	10.8		4.6	51.5	
Queue Length 50th (ft)		46			6		3	75		1	233	
Queue Length 95th (ft)		80			21		m10	610		6	#632	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		418			427		486	1491		567	1401	
Starvation Cap Reductn		0			0		0	382		0	0	
Spillback Cap Reductn		106			106		0	0		0	613	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.31			0.05		0.06	0.71		0.01	1.07	

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	

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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	64	6	19	7	4	5	27	722	6	6	669	107
Future Volume (veh/h)	64	6	19	7	4	5	27	722	6	6	669	107
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00
Ped-Bike Adj(A_pbT)	0.99		0.98	0.99		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	70	7	21	8	4	5	29	785	7	7	727	116
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	169	16	32	112	57	46	464	1423	13	514	1306	208
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	1131	182	358	604	639	518	1781	1925	17	1968	1795	286
Grp Volume(v), veh/h	98	0	0	17	0	0	29	0	792	7	0	843
Grp Sat Flow(s),veh/h/ln	1671	0	0	1761	0	0	1781	0	1942	1968	0	2081
Q Serve(g_s), s	4.3	0.0	0.0	0.0	0.0	0.0	0.4	0.0	16.2	0.1	0.0	16.7
Cycle Q Clear(g_c), s	5.0	0.0	0.0	0.8	0.0	0.0	0.4	0.0	16.2	0.1	0.0	16.7
Prop In Lane	0.71		0.21	0.47		0.29	1.00		0.01	1.00		0.14
Lane Grp Cap(c), veh/h	217	0	0	215	0	0	464	0	1436	514	0	1514
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	0.56
Avail Cap(c_a), veh/h	526	0	0	513	0	0	632	0	1436	722	0	1514
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	39.6	0.0	0.0	37.7	0.0	0.0	4.6	0.0	5.2	4.5	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	1.4	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	2.1	0.0	0.0	0.3	0.0	0.0	0.1	0.0	5.4	0.0	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	40.2	0.0	0.0	37.8	0.0	0.0	4.6	0.0	6.5	4.5	0.0	7.1
LnGrp LOS	D			D			A		A	A		A
Approach Vol, veh/h		98			17			821			850	
Approach Delay, s/veh		40.2			37.8			6.5			7.1	
Approach LOS		D			D			A			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.5	71.5		13.0	6.5	70.5		13.0				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	40.0		25.0	10.0	40.0		25.0				
Max Q Clear Time (g_c+I1), s	2.1	18.2		7.0	2.4	18.7		2.8				
Green Ext Time (p_c), s	0.0	1.8		0.1	0.0	2.1		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	8.9	
HCM 7th LOS	A	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	314	13	68	2	8	7	85	434	13	5	530	160
Future Volume (vph)	314	13	68	2	8	7	85	434	13	5	530	160
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		0.99			0.98		0.99	0.99		0.99	0.99	
Frt			0.850		0.943			0.996			0.965	
Flt Protected		0.954			0.995		0.950			0.950		
Satd. Flow (prot)	0	1759	1568	0	1806	0	1690	1892	0	1743	1745	0
Flt Permitted		0.954			0.995		0.096			0.403		
Satd. Flow (perm)	0	1753	1568	0	1806	0	171	1892	0	739	1745	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					8			2			18	
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)	341	14	74	2	9	8	92	472	14	5	576	174
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	355	74	0	19	0	92	486	0	5	750	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												
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	

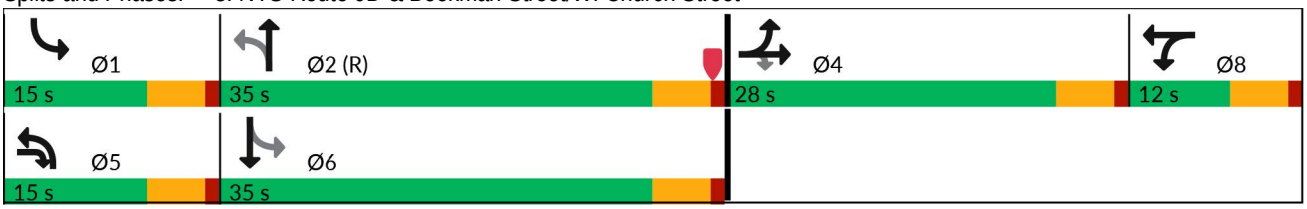
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases			4				2			6		
Detector Phase	4	4	5	8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	3.0	5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0	8.0	10.0	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	0.14		0.15		0.45	0.43		0.01	0.84	
Control Delay (s/veh)		55.1	15.4		32.1		15.5	14.7		15.8	40.2	
Queue Delay		5.6	0.0		0.0		0.0	0.9		0.0	50.6	
Total Delay (s/veh)		60.7	15.4		32.1		15.5	15.7		15.8	90.8	
Queue Length 50th (ft)		188	27		6		26	158		2	418	
Queue Length 95th (ft)		#324	40		28		50	389		m3	#771	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		449	591		147		272	1107		548	886	
Starvation Cap Reductn		0	0		0		0	364		0	325	
Spillback Cap Reductn		54	65		0		0	100		0	8	
Storage Cap Reductn		0	0		0		0	0		0	0	
Reduced v/c Ratio		0.90	0.14		0.13		0.34	0.65		0.01	1.34	

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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	314	13	68	2	8	7	85	434	13	5	530	160
Future Volume (veh/h)	314	13	68	2	8	7	85	434	13	5	530	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	341	14	74	2	9	8	92	472	14	5	576	174
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	378	16	413	5	20	18	233	1069	32	427	649	196
Arrive On Green	0.22	0.22	0.22	0.02	0.02	0.02	0.04	0.53	0.53	0.00	0.49	0.49
Sat Flow, veh/h	1693	69	1558	216	971	863	1891	2018	60	1731	1319	399
Grp Volume(v), veh/h	355	0	74	19	0	0	92	0	486	5	0	750
Grp Sat Flow(s),veh/h/ln	1762	0	1558	2050	0	0	1891	0	2078	1731	0	1718
Q Serve(g_s), s	17.6	0.0	3.3	0.8	0.0	0.0	2.1	0.0	12.9	0.1	0.0	35.4
Cycle Q Clear(g_c), s	17.6	0.0	3.3	0.8	0.0	0.0	2.1	0.0	12.9	0.1	0.0	35.4
Prop In Lane	0.96		1.00	0.11		0.42	1.00		0.03	1.00		0.23
Lane Grp Cap(c), veh/h	393	0	413	43	0	0	233	0	1101	427	0	845
V/C Ratio(X)	0.90	0.00	0.18	0.44	0.00	0.00	0.39	0.00	0.44	0.01	0.00	0.89
Avail Cap(c_a), veh/h	450	0	463	159	0	0	365	0	1101	613	0	845
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	0.77	0.00	0.77
Uniform Delay (d), s/veh	34.0	0.0	25.5	43.5	0.0	0.0	18.2	0.0	13.0	12.0	0.0	20.6
Incr Delay (d2), s/veh	18.3	0.0	0.1	2.6	0.0	0.0	0.4	0.0	1.1	0.0	0.0	10.6
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	9.4	0.0	1.2	0.4	0.0	0.0	0.9	0.0	6.0	0.0	0.0	15.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	52.3	0.0	25.6	46.2	0.0	0.0	18.6	0.0	14.1	12.0	0.0	31.2
LnGrp LOS	D		C	D			B		B	B		C
Approach Vol, veh/h		429			19			578			755	
Approach Delay, s/veh		47.7			46.2			14.8			31.1	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.4	52.7		25.1	8.7	49.3		6.9				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	30.0		23.0	10.0	30.0		7.0				
Max Q Clear Time (g_c+I1), s	2.1	14.9		19.6	4.1	37.4		2.8				
Green Ext Time (p_c), s	0.0	0.9		0.4	0.0	0.0		0.0				

Intersection Summary		
HCM 7th Control Delay, s/veh	30.0	
HCM 7th LOS	C	

Notes

User approved pedestrian interval to be less than phase max green.

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	8	2	43	2	193	2	337	74	251	350	0
Future Volume (vph)	2	8	2	43	2	193	2	337	74	251	350	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		0.98				
Frt		0.979				0.850		0.973				
Flt Protected		0.992			0.954		0.950			0.950		
Satd. Flow (prot)	0	1825	0	0	1885	1647	1832	1810	0	1743	1853	0
Flt Permitted		0.959			0.721		0.527			0.344		
Satd. Flow (perm)	0	1764	0	0	1425	1566	1016	1810	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	47	2	212	3	427	94	285	398	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	19	0	0	49	212	3	521	0	285	398	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												
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	

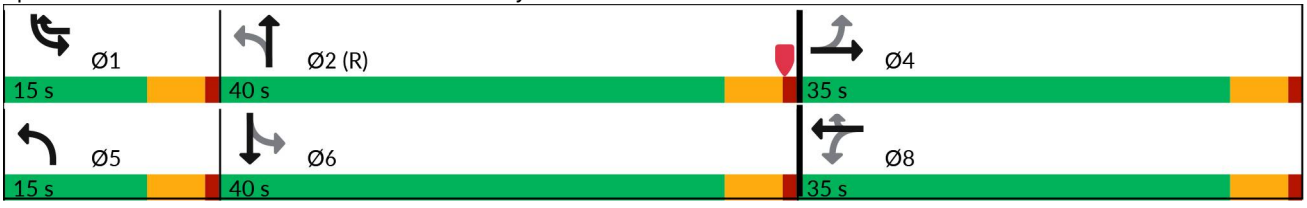
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8		8	2			6		
Detector Phase	4	4		8	8	1	5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0	3.0	3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	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			0.24	0.51	0.00	0.47		0.43	0.27	
Control Delay (s/veh)		25.4			33.1	28.5	7.0	16.3		7.6	9.5	
Queue Delay		0.0			0.0	1.3	0.0	0.0		0.0	0.6	
Total Delay (s/veh)		25.4			33.1	29.8	7.0	16.3		7.6	10.2	
Queue Length 50th (ft)		9			27	104	0	136		56	91	
Queue Length 95th (ft)		15			51	113	3	300		m128	m286	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		590			475	413	814	1088		653	1473	
Starvation Cap Reductn		0			0	0	0	0		0	722	
Spillback Cap Reductn		0			0	76	0	12		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.03			0.10	0.63	0.00	0.48		0.44	0.53	

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: 50	
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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	8	2	43	2	193	2	337	74	251	350	0
Future Volume (veh/h)	2	8	2	43	2	193	2	337	74	251	350	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	47	2	212	3	427	94	285	398	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	67	220	45	336	13	445	693	917	202	592	1222	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	126	1344	276	1574	80	1767	1922	1565	345	1731	1832	0
Grp Volume(v), veh/h	19	0	0	49	0	212	3	0	521	285	398	0
Grp Sat Flow(s),veh/h/ln	1745	0	0	1653	0	1767	1922	0	1910	1731	1832	0
Q Serve(g_s), s	0.0	0.0	0.0	1.3	0.0	9.2	0.1	0.0	14.0	5.5	8.3	0.0
Cycle Q Clear(g_c), s	0.8	0.0	0.0	2.1	0.0	9.2	0.1	0.0	14.0	5.5	8.3	0.0
Prop In Lane	0.16		0.16	0.96		1.00	1.00		0.18	1.00		0.00
Lane Grp Cap(c), veh/h	332	0	0	349	0	445	693	0	1119	592	1222	0
V/C Ratio(X)	0.06	0.00	0.00	0.14	0.00	0.48	0.00	0.00	0.47	0.48	0.33	0.00
Avail Cap(c_a), veh/h	614	0	0	625	0	744	902	0	1119	640	1222	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	0.53	0.53	0.00
Uniform Delay (d), s/veh	31.8	0.0	0.0	32.3	0.0	28.9	7.7	0.0	10.6	7.3	6.4	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	0.9	0.0	3.9	0.0	0.0	5.8	1.6	2.9	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.8	0.0	0.0	32.4	0.0	29.2	7.7	0.0	12.0	7.4	6.7	0.0
LnGrp LOS	C			C		C	A		B	A	A	
Approach Vol, veh/h		19			261			524			683	
Approach Delay, s/veh		31.8			29.8			12.0			7.0	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.5	57.7		19.7	5.2	65.0		19.7				
Change Period (Y+Rc), s	5.0	5.0		5.0	5.0	5.0		5.0				
Max Green Setting (Gmax), s	10.0	35.0		30.0	10.0	35.0		30.0				
Max Q Clear Time (g_c+I1), s	7.5	16.0		2.8	2.1	10.3		11.2				
Green Ext Time (p_c), s	0.1	0.4		0.0	0.0	0.3		0.6				

Intersection Summary		
HCM 7th Control Delay, s/veh		13.1
HCM 7th LOS		B

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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	623	5	8	705	98
Future Volume (vph)	70	2	18	4	6	11	24	623	5	8	705	98
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			0.98			0.99			0.99	
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		0.235			0.348		
Satd. Flow (perm)	0	1417	0	0	1656	0	438	1923	0	664	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	663	5	9	750	104
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	95	0	0	22	0	26	668	0	9	854	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	
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	

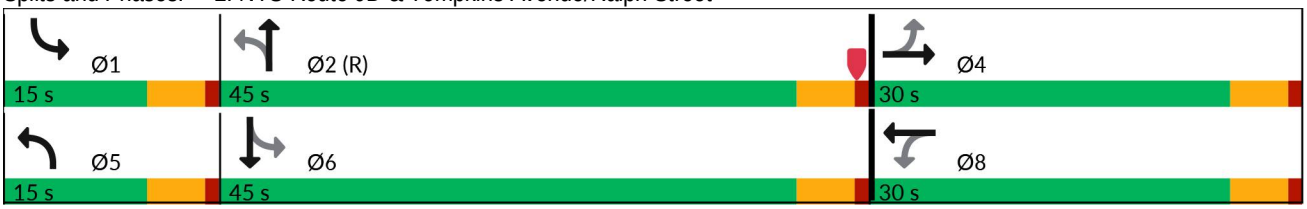
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		3.0	10.0		3.0	10.0	
Minimum Split (s)	10.0	10.0		10.0	10.0		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			0.10		0.06	0.44		0.01	0.58	
Control Delay (s/veh)		37.9			20.7		4.5	6.1		4.6	11.3	
Queue Delay		0.0			0.0		0.0	0.2		0.0	0.7	
Total Delay (s/veh)		37.9			20.7		4.5	6.3		4.6	12.1	
Queue Length 50th (ft)		44			5		1	119		1	142	
Queue Length 95th (ft)		78			23		m14	212		7	#637	
Internal Link Dist (ft)		23			582			255			410	
Turn Bay Length (ft)							100			100		
Base Capacity (vph)		403			468		491	1490		648	1456	
Starvation Cap Reductn		0			0		0	254		0	0	
Spillback Cap Reductn		1			0		0	0		0	297	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.24			0.05		0.05	0.54		0.01	0.74	

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



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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	623	5	8	705	98
Future Volume (veh/h)	70	2	18	4	6	11	24	623	5	8	705	98
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width Adj.	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00	1.00	1.04	1.00
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	663	5	9	750	104
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	456	1417	11	709	1340	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	1846	256
Grp Volume(v), veh/h	95	0	0	22	0	0	26	0	668	9	0	854
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	16.9
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	16.9
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	456	0	1428	709	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	0.56
Avail Cap(c_a), veh/h	520	0	0	514	0	0	626	0	1428	914	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	0.90	0.00	0.90	1.00	0.00	1.00
Uniform Delay (d), s/veh	39.3	0.0	0.0	37.6	0.0	0.0	4.6	0.0	0.0	3.2	0.0	5.7
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	1.5
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	2.0	0.0	0.0	0.4	0.0	0.0	0.1	0.0	0.4	0.0	0.0	6.3
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	7.2
LnGrp LOS	D			D			A		A	A		A
Approach Vol, veh/h		95			22			694			863	
Approach Delay, s/veh		39.8			37.7			1.1			7.1	
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	18.9		3.0				
Green Ext Time (p_c), s	0.0	1.5		0.1	0.0	2.1		0.0				

Intersection Summary	
HCM 7th Control Delay, s/veh	6.9
HCM 7th LOS	A

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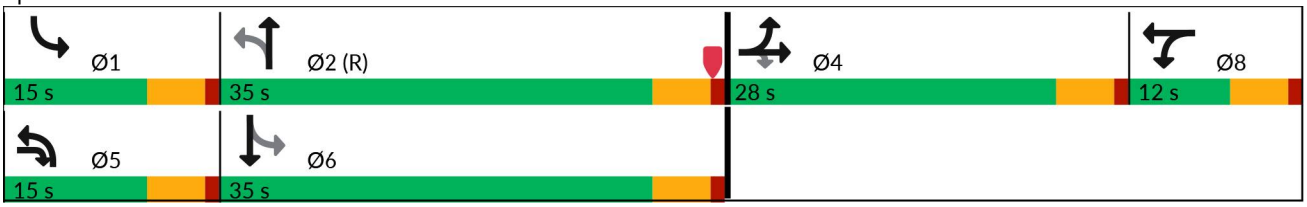
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	169	6	72	10	4	8	109	475	4	8	513	205
Future Volume (vph)	169	6	72	10	4	8	109	475	4	8	513	205
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		2%			-10%			-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		0.99	0.99		0.99	0.99	
Frt			0.850		0.949			0.999			0.957	
Flt Protected		0.954			0.978		0.950			0.950		
Satd. Flow (prot)	0	1759	1568	0	1755	0	1823	1916	0	1743	1741	0
Flt Permitted		0.954			0.978		0.110			0.402		
Satd. Flow (perm)	0	1724	1522	0	1751	0	211	1916	0	735	1741	0
Right Turn on Red			No			Yes			Yes			Yes
Satd. Flow (RTOR)					9						24	
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)	190	7	81	11	4	9	122	534	4	9	576	230
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	197	81	0	24	0	122	538	0	9	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												
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												
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		

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	0.22		0.20		0.48	0.43		0.01	0.84	
Control Delay (s/veh)		45.4	19.3		33.1		19.9	10.1		6.2	25.1	
Queue Delay		0.0	0.0		0.0		0.0	0.4		0.0	0.0	
Total Delay (s/veh)		45.4	19.3		33.1		19.9	10.6		6.2	25.2	
Queue Length 50th (ft)		107	35		8		17	81		1	299	
Queue Length 95th (ft)		156	41		32		m82	237		m2	#790	
Internal Link Dist (ft)		328			248			308			255	
Turn Bay Length (ft)			95				75			75		
Base Capacity (vph)		449	430		144		320	1241		591	959	
Starvation Cap Reductn		0	0		0		0	306		0	4	
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	0.19		0.17		0.38	0.58		0.02	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: 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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	169	6	72	10	4	8	109	475	4	8	513	205
Future Volume (veh/h)	169	6	72	10	4	8	109	475	4	8	513	205
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	190	7	81	11	4	9	122	534	4	9	576	230
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	255	9	292	23	8	19	299	1244	9	475	686	274
Arrive On Green	0.15	0.15	0.15	0.03	0.03	0.03	0.05	0.60	0.60	0.01	0.56	0.56
Sat Flow, veh/h	1699	63	1466	911	331	745	2006	2087	16	1731	1232	492
Grp Volume(v), veh/h	197	0	81	24	0	0	122	0	538	9	0	806
Grp Sat Flow(s),veh/h/ln	1762	0	1466	1987	0	0	2006	0	2103	1731	0	1724
Q Serve(g_s), s	9.6	0.0	4.2	1.1	0.0	0.0	2.3	0.0	12.5	0.2	0.0	35.0
Cycle Q Clear(g_c), s	9.6	0.0	4.2	1.1	0.0	0.0	2.3	0.0	12.5	0.2	0.0	35.0
Prop In Lane	0.96		1.00	0.46		0.37	1.00		0.01	1.00		0.29
Lane Grp Cap(c), veh/h	264	0	292	50	0	0	299	0	1253	475	0	960
V/C Ratio(X)	0.75	0.00	0.28	0.48	0.00	0.00	0.41	0.00	0.43	0.02	0.00	0.84
Avail Cap(c_a), veh/h	450	0	446	155	0	0	430	0	1253	656	0	960
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	36.6	0.0	30.8	43.3	0.0	0.0	15.7	0.0	9.9	9.1	0.0	16.6
Incr Delay (d2), s/veh	1.6	0.0	0.2	2.7	0.0	0.0	0.3	0.0	0.9	0.0	0.0	7.0
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	4.2	0.0	1.5	0.6	0.0	0.0	1.0	0.0	5.5	0.1	0.0	14.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	38.2	0.0	31.0	46.0	0.0	0.0	16.0	0.0	10.8	9.1	0.0	23.6
LnGrp LOS	D		C	D			B		B	A		C
Approach Vol, veh/h		278			24			660			815	
Approach Delay, s/veh		36.1			46.0			11.8			23.4	
Approach LOS		D			D			B			C	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	5.6	58.6		18.5	9.1	55.1		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	14.5		11.6	4.3	37.0		3.1				
Green Ext Time (p_c), s	0.0	1.0		0.5	0.0	0.0		0.0				

Intersection Summary												
HCM 7th Control Delay, s/veh			21.4									
HCM 7th LOS			C									

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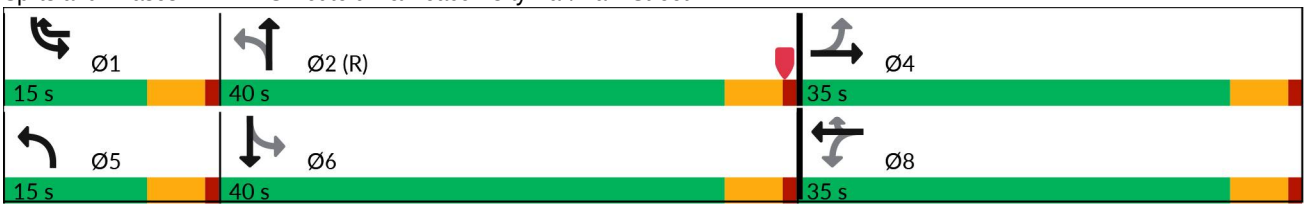
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	2	2	31	0	226	2	360	46	269	322	3
Future Volume (vph)	2	2	2	31	0	226	2	360	46	269	322	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		1%			-8%			-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				0.96		0.98			0.99	
Frt		0.955				0.850		0.983			0.999	
Flt Protected		0.984			0.950		0.950			0.950		
Satd. Flow (prot)	0	1749	0	0	1877	1663	1832	1829	0	1760	1851	0
Flt Permitted		0.921			0.752		0.550			0.383		
Satd. Flow (perm)	0	1637	0	0	1486	1611	1061	1829	0	710	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	35	0	254	2	409	52	292	350	3
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	9	0	0	35	254	2	461	0	292	353	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												
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		

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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		0.03			0.16	0.60	0.00	0.42		0.41	0.23	
Control Delay (s/veh)		23.1			31.5	31.1	7.0	14.8		9.2	5.9	
Queue Delay		0.0			0.0	0.0	0.0	0.0		0.0	0.2	
Total Delay (s/veh)		23.1			31.5	31.1	7.0	14.8		9.2	6.2	
Queue Length 50th (ft)		3			19	127	0	116		15	19	
Queue Length 95th (ft)		11			39	140	3	290		m103	m94	
Internal Link Dist (ft)		53			270			922			308	
Turn Bay Length (ft)						70	65			120		
Base Capacity (vph)		547			495	421	838	1094		711	1475	
Starvation Cap Reductn		0			0	0	0	0		0	572	
Spillback Cap Reductn		0			0	0	0	32		0	0	
Storage Cap Reductn		0			0	0	0	0		0	0	
Reduced v/c Ratio		0.02			0.07	0.60	0.00	0.43		0.41	0.39	

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



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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	2	2	2	31	0	226	2	360	46	269	322	3
Future Volume (veh/h)	2	2	2	31	0	226	2	360	46	269	322	3
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Lane Width 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
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	35	0	254	2	409	52	292	350	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	116	113	88	358	0	477	716	987	125	630	1196	10
Arrive On Green	0.17	0.17	0.17	0.17	0.00	0.17	0.00	0.57	0.57	0.09	0.66	0.66
Sat Flow, veh/h	365	654	509	1613	0	1832	1922	1719	219	1745	1814	16
Grp Volume(v), veh/h	9	0	0	35	0	254	2	0	461	292	0	353
Grp Sat Flow(s),veh/h/ln	1528	0	0	1613	0	1832	1922	0	1937	1745	0	1829
Q Serve(g_s), s	0.0	0.0	0.0	1.2	0.0	10.7	0.0	0.0	12.0	5.7	0.0	7.3
Cycle Q Clear(g_c), s	0.4	0.0	0.0	1.6	0.0	10.7	0.0	0.0	12.0	5.7	0.0	7.3
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	317	0	0	358	0	477	716	0	1113	630	0	1206
V/C Ratio(X)	0.03	0.00	0.00	0.10	0.00	0.53	0.00	0.00	0.41	0.46	0.00	0.29
Avail Cap(c_a), veh/h	551	0	0	616	0	772	927	0	1113	673	0	1206
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	0.53	0.00	0.53
Uniform Delay (d), s/veh	31.0	0.0	0.0	31.4	0.0	28.7	8.1	0.0	10.7	7.0	0.0	6.5
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.3	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	0.2	0.0	0.0	0.6	0.0	4.7	0.0	0.0	5.1	1.8	0.0	2.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d), s/veh	31.0	0.0	0.0	31.5	0.0	29.0	8.1	0.0	11.8	7.1	0.0	6.8
LnGrp LOS	C			C		C	A		B	A		A
Approach Vol, veh/h		9			289			463			645	
Approach Delay, s/veh		31.0			29.3			11.8			7.0	
Approach LOS		C			C			B			A	

Timer - Assigned Phs	1	2		4	5	6		8				
Phs Duration (G+Y+Rc), s	12.8	56.7		20.5	5.1	64.3		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	35.0		30.0	10.0	35.0		30.0				
Max Q Clear Time (g_c+I1), s	7.7	14.0		2.4	2.0	9.3		12.7				
Green Ext Time (p_c), s	0.1	0.3		0.0	0.0	0.2		0.6				

Intersection Summary			
HCM 7th Control Delay, s/veh		13.3	
HCM 7th LOS		B	

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Appendix D | Arterial Analysis

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	11.0	35.1	0.19	19.5	C
W. Church Street	III	30	11.4	7.4	18.8	0.07	14.1	D
Verplanck Avenue	III	30	31.0	25.2	56.2	0.24	15.6	D
Total	III		66.5	43.6	110.1	0.51	16.6	D

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	III	30	14.1	6.4	20.5	0.10	17.6	D
Beekman Street	III	30	31.0	12.9	43.9	0.24	20.0	C
Beacon City Hall	III	30	11.4	4.0	15.4	0.07	17.2	D
Total	III		56.5	23.3	79.8	0.42	18.8	C

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	14.7	38.8	0.19	17.6	D
W. Church Street	III	30	11.4	12.0	23.4	0.07	11.3	E
Verplanck Avenue	III	30	31.0	27.9	58.9	0.24	14.9	D
Total	III		66.5	54.6	121.1	0.51	15.1	D

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	III	30	14.1	4.9	19.0	0.10	19.0	C
Beekman Street	III	30	31.0	22.9	53.9	0.24	16.3	D
Beacon City Hall	III	30	11.4	4.5	15.9	0.07	16.6	D
Total	III		56.5	32.3	88.8	0.42	16.9	D

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	11.3	35.4	0.19	19.3	C
W. Church Street	III	30	11.4	10.7	22.1	0.07	12.0	E
Verplanck Avenue	III	30	31.0	23.6	54.6	0.24	16.1	D
Total	III		66.5	45.6	112.1	0.51	16.3	D

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	III	30	14.1	4.9	19.0	0.10	19.0	C
Beekman Street	III	30	31.0	18.9	49.9	0.24	17.6	D
Beacon City Hall	III	30	11.4	4.1	15.5	0.07	17.1	D
Total	III		56.5	27.9	84.4	0.42	17.8	D

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	14.1	38.2	0.19	17.9	D
W. Church Street	III	30	11.4	7.8	19.2	0.07	13.8	E
Verplanck Avenue	III	30	31.0	26.3	57.3	0.24	15.3	D
Total	III		66.5	48.2	114.7	0.51	15.9	D

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	III	30	14.1	6.1	20.2	0.10	17.9	D
Beekman Street	III	30	31.0	17.4	48.4	0.24	18.1	C
Beacon City Hall	III	30	11.4	4.7	16.1	0.07	16.4	D
Total	III		56.5	28.2	84.7	0.42	17.7	D

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	18.2	42.3	0.19	16.2	D
W. Church Street	III	30	11.4	15.8	27.2	0.07	9.7	F
Verplanck Avenue	III	30	31.0	38.9	69.9	0.24	12.6	E
Total	III		66.5	72.9	139.4	0.51	13.1	E

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	III	30	14.1	5.8	19.9	0.10	18.1	C
Beekman Street	III	30	31.0	33.0	64.0	0.24	13.7	E
Beacon City Hall	III	30	11.4	5.4	16.8	0.07	15.7	D
Total	III		56.5	44.2	100.7	0.42	14.9	D

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	13.6	37.7	0.19	18.1	C
W. Church Street	III	30	11.4	11.9	23.3	0.07	11.4	E
Verplanck Avenue	III	30	31.0	27.9	58.9	0.24	14.9	D
Total	III		66.5	53.4	119.9	0.51	15.2	D

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	III	30	14.1	6.2	20.3	0.10	17.8	D
Beekman Street	III	30	31.0	25.2	56.2	0.24	15.6	D
Beacon City Hall	III	30	11.4	5.0	16.4	0.07	16.1	D
Total	III		56.5	36.4	92.9	0.42	16.2	D

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	14.6	38.7	0.19	17.7	D
W. Church Street	III	30	11.4	8.4	19.8	0.07	13.4	E
Verplanck Avenue	III	30	31.0	26.7	57.7	0.24	15.2	D
Total	III		66.5	49.7	116.2	0.51	15.7	D

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	III	30	14.1	6.2	20.3	0.10	17.8	D
Beekman Street	III	30	31.0	22.0	53.0	0.24	16.6	D
Beacon City Hall	III	30	11.4	4.8	16.2	0.07	16.3	D
Total	III		56.5	33.0	89.5	0.42	16.8	D

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	19.4	43.5	0.19	15.7	D
W. Church Street	III	30	11.4	17.6	29.0	0.07	9.1	F
Verplanck Avenue	III	30	31.0	43.5	74.5	0.24	11.8	E
Total	III		66.5	80.5	147.0	0.51	12.4	E

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	III	30	14.1	6.1	20.2	0.10	17.9	D
Beekman Street	III	30	31.0	39.8	70.8	0.24	12.4	E
Beacon City Hall	III	30	11.4	6.0	17.4	0.07	15.2	D
Total	III		56.5	51.9	108.4	0.42	13.9	E

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	14.3	38.4	0.19	17.8	D
W. Church Street	III	30	11.4	13.0	24.4	0.07	10.8	E
Verplanck Avenue	III	30	31.0	29.7	60.7	0.24	14.5	D
Total	III		66.5	57.0	123.5	0.51	14.8	D

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	III	30	14.1	6.5	20.6	0.10	17.5	D
Beekman Street	III	30	31.0	28.9	59.9	0.24	14.6	D
Beacon City Hall	III	30	11.4	5.2	16.6	0.07	15.9	D
Total	III		56.5	40.6	97.1	0.42	15.5	D

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	14.5	38.6	0.19	17.7	D
W. Church Street	III	30	11.4	8.7	20.1	0.07	13.2	E
Verplanck Avenue	III	30	31.0	26.7	57.7	0.24	15.2	D
Total	III		66.5	49.9	116.4	0.51	15.7	D

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	III	30	14.1	6.2	20.3	0.10	17.8	D
Beekman Street	III	30	31.0	29.8	60.8	0.24	14.4	D
Beacon City Hall	III	30	11.4	5.6	17.0	0.07	15.6	D
Total	III		56.5	41.6	98.1	0.42	15.3	D

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	16.3	40.4	0.19	16.9	D
W. Church Street	III	30	11.4	14.8	26.2	0.07	10.1	E
Verplanck Avenue	III	30	31.0	43.5	74.5	0.24	11.8	E
Total	III		66.5	74.6	141.1	0.51	12.9	E

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	III	30	14.1	6.1	20.2	0.10	17.9	D
Beekman Street	III	30	31.0	34.4	65.4	0.24	13.4	E
Beacon City Hall	III	30	11.4	9.5	20.9	0.07	12.7	E
Total	III		56.5	50.0	106.5	0.42	14.1	D

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	14.9	39.0	0.19	17.5	D
W. Church Street	III	30	11.4	10.2	21.6	0.07	12.2	E
Verplanck Avenue	III	30	31.0	27.7	58.7	0.24	14.9	D
Total	III		66.5	52.8	119.3	0.51	15.3	D

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	III	30	14.1	6.2	20.3	0.10	17.8	D
Beekman Street	III	30	31.0	31.0	62.0	0.24	14.2	D
Beacon City Hall	III	30	11.4	6.0	17.4	0.07	15.2	D
Total	III		56.5	43.2	99.7	0.42	15.1	D

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	14.1	38.2	0.19	17.9	D
W. Church Street	III	30	11.4	7.8	19.2	0.07	13.8	E
Ralph Street	III	30	9.8	6.4	16.2	0.06	14.1	D
Verplanck Avenue	III	30	22.9	26.3	49.2	0.18	13.2	E
Total	III		68.2	54.6	122.8	0.51	14.9	D

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	IV	30	18.0	6.1	24.1	0.10	15.0	C
Tompkins Avenue	IV	30	25.2	9.9	35.1	0.18	18.5	C
Beekman Street	IV	30	14.4	17.4	31.8	0.06	7.2	E
Beacon City Hall	IV	30	16.7	4.7	21.4	0.07	12.4	D
Total	IV		74.3	38.1	112.4	0.42	13.4	C

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	18.2	42.3	0.19	16.2	D
W. Church Street	III	30	11.4	15.8	27.2	0.07	9.7	F
Ralph Street	III	30	9.8	5.1	14.9	0.06	15.3	D
Verplanck Avenue	III	30	22.9	38.9	61.8	0.18	10.5	E
Total	III		68.2	78.0	146.2	0.51	12.5	E

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	IV	30	18.0	5.8	23.8	0.10	15.2	C
Tompkins Avenue	IV	30	25.2	11.3	36.5	0.18	17.8	C
Beekman Street	IV	30	14.4	26.3	40.7	0.06	5.6	F
Beacon City Hall	IV	30	16.7	5.4	22.1	0.07	12.0	D
Total	IV		74.3	48.8	123.1	0.42	12.2	D

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	13.6	37.7	0.19	18.1	C
W. Church Street	III	30	11.4	11.8	23.2	0.07	11.4	E
Ralph Street	III	30	9.8	7.5	17.3	0.06	13.2	E
Verplanck Avenue	III	30	22.9	27.9	50.8	0.18	12.8	E
Total	III		68.2	60.8	129.0	0.51	14.1	D

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	IV	30	18.0	6.2	24.2	0.10	14.9	C
Tompkins Avenue	IV	30	25.2	10.7	35.9	0.18	18.1	C
Beekman Street	IV	30	14.4	25.1	39.5	0.06	5.8	F
Beacon City Hall	IV	30	16.7	5.0	21.7	0.07	12.2	D
Total	IV		74.3	47.0	121.3	0.42	12.4	D

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	14.5	38.6	0.19	17.7	D
W. Church Street	III	30	11.4	8.7	20.1	0.07	13.2	E
Ralph Street	III	30	9.8	6.4	16.2	0.06	14.1	D
Verplanck Avenue	III	30	22.9	26.7	49.6	0.18	13.1	E
Total	III		68.2	56.3	124.5	0.51	14.7	D

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	IV	30	18.0	6.2	24.2	0.10	14.9	C
Tompkins Avenue	IV	30	25.2	12.6	37.8	0.18	17.2	C
Beekman Street	IV	30	14.4	23.3	37.7	0.06	6.1	F
Beacon City Hall	IV	30	16.7	5.7	22.4	0.07	11.8	D
Total	IV		74.3	47.8	122.1	0.42	12.3	D

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	16.3	40.4	0.19	16.9	D
W. Church Street	III	30	11.4	14.8	26.2	0.07	10.1	E
Ralph Street	III	30	9.8	10.1	19.9	0.06	11.5	E
Verplanck Avenue	III	30	22.9	43.5	66.4	0.18	9.8	F
Total	III		68.2	84.7	152.9	0.51	11.9	E

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	IV	30	18.0	6.1	24.1	0.10	15.0	C
Tompkins Avenue	IV	30	25.2	12.4	37.6	0.18	17.3	C
Beekman Street	IV	30	14.4	40.2	54.6	0.06	4.2	F
Beacon City Hall	IV	30	16.7	9.5	26.2	0.07	10.1	D
Total	IV		74.3	68.2	142.5	0.42	10.5	D

Arterial Level of Service: NB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Main Street	III	30	24.1	14.9	39.0	0.19	17.5	D
W. Church Street	III	30	11.4	10.2	21.6	0.07	12.2	E
Ralph Street	III	30	9.8	6.1	15.9	0.06	14.4	D
Verplanck Avenue	III	30	22.9	27.7	50.6	0.18	12.8	E
Total	III		68.2	58.9	127.1	0.51	14.4	D

Arterial Level of Service: SB NYS Route 9D

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Verplanck Avenue	IV	30	18.0	6.2	24.2	0.10	14.9	C
Tompkins Avenue	IV	30	25.2	11.4	36.6	0.18	17.7	C
Beekman Street	IV	30	14.4	25.2	39.6	0.06	5.8	F
Beacon City Hall	IV	30	16.7	6.0	22.7	0.07	11.7	D
Total	IV		74.3	48.8	123.1	0.42	12.2	D

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Traffic & Parking Study

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

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
Accelerating Success

File Name : 1._NYS_Route_9D_and_Verplanck_Avenue_-WKDAY_1107097_09-07-2023
Site Code :
Start Date : 9/7/2023
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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
Accelerating Success

File Name : 1.NYS_Route_9D_and_Verplanck_Avenue__-SAT_1107098_09-09-2023
Site Code :
Start Date : 9/9/2023
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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
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
Accelerating Success

File Name : 1.NYS_Route_9D_and_Verplanck_Avenue__-SAT_1107098_09-09-2023
Site Code :
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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

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
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
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

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 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

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Valhalla, New York, 10595
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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

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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

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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

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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

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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

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Valhalla, New York, 10595
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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

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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

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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
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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

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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

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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

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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

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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
Valhalla, New York, 10595
Accelerating Success

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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

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: 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: 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: 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

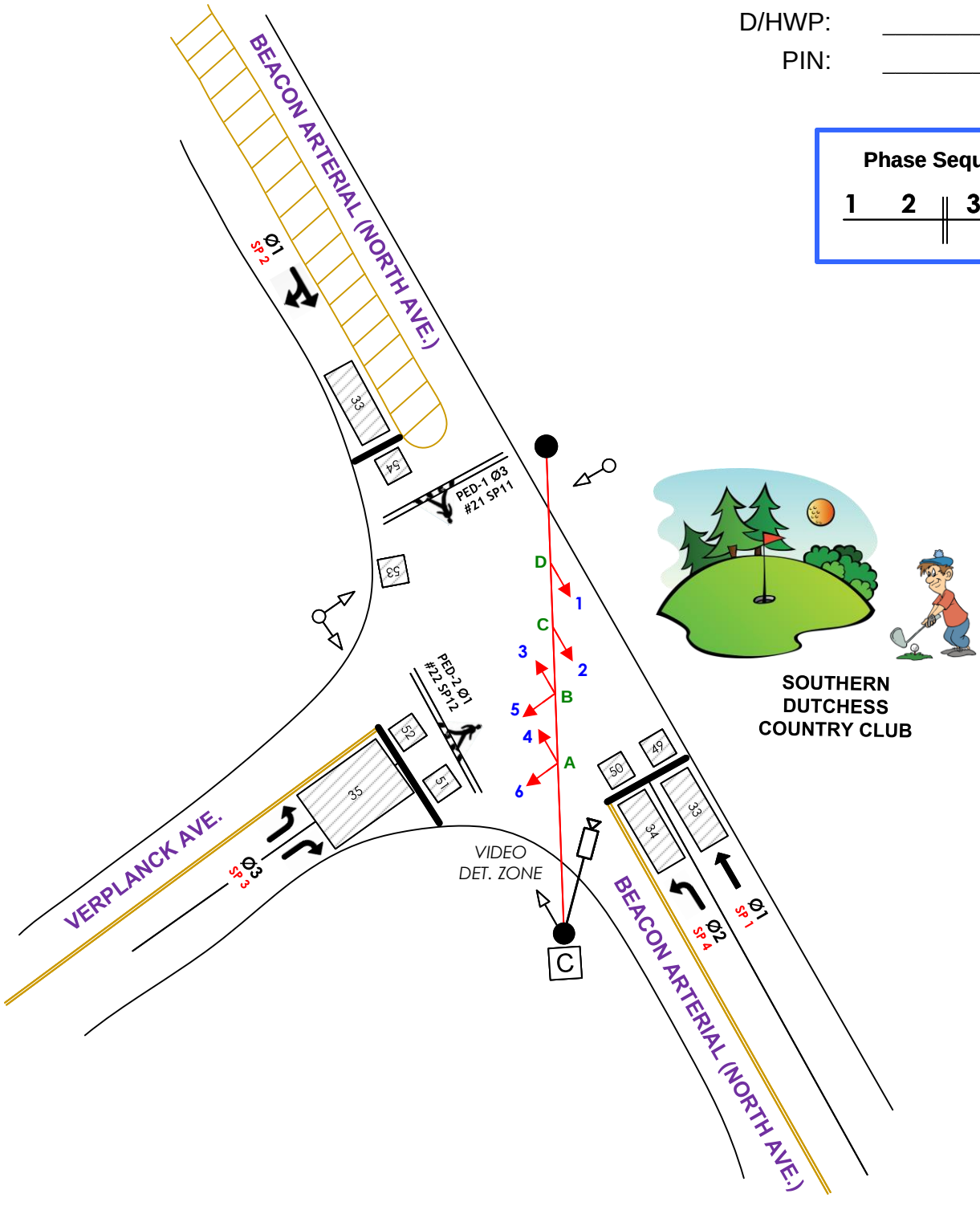
Appendix E | NYSDOT Traffic Signal Timing Plans

D-24A
Signal #

STATE OF NEW YORK - DEPARTMENT OF TRANSPORTATION
TRAFFIC AND SAFETY DIVISION
in the City of BEACON

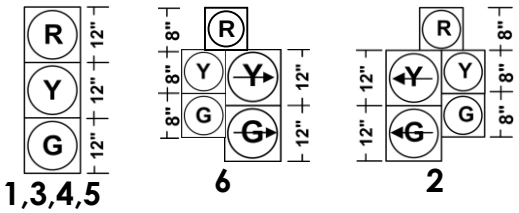
Signal: **D-24A**
File: 13.01-BEACON ART.
D/HWP: _____
PIN: _____

Phase Sequence
1 2 3



SOUTHERN DUTCHESS COUNTRY CLUB

TABLE OF FACES



NORTH

2022 PLAN OF OPERATION

Printed: 10/13/2022

2924

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

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					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																

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

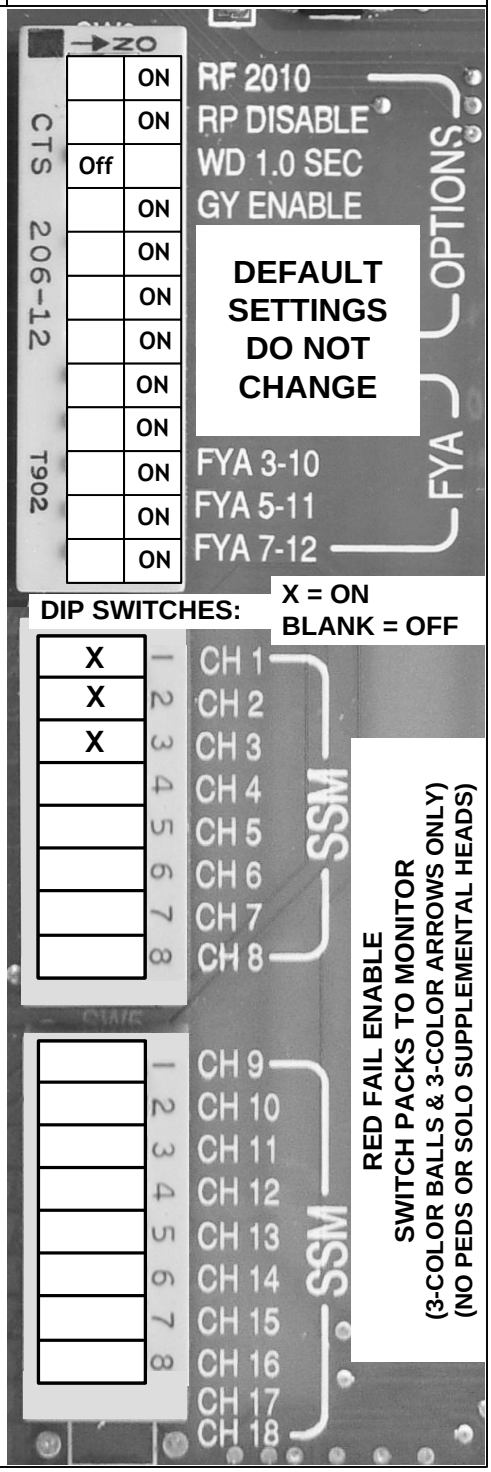
Signal: **D-24A**
File: 13.01-BEACON ART.
D/HWP:
PIN:
Date: 4/25/2022

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

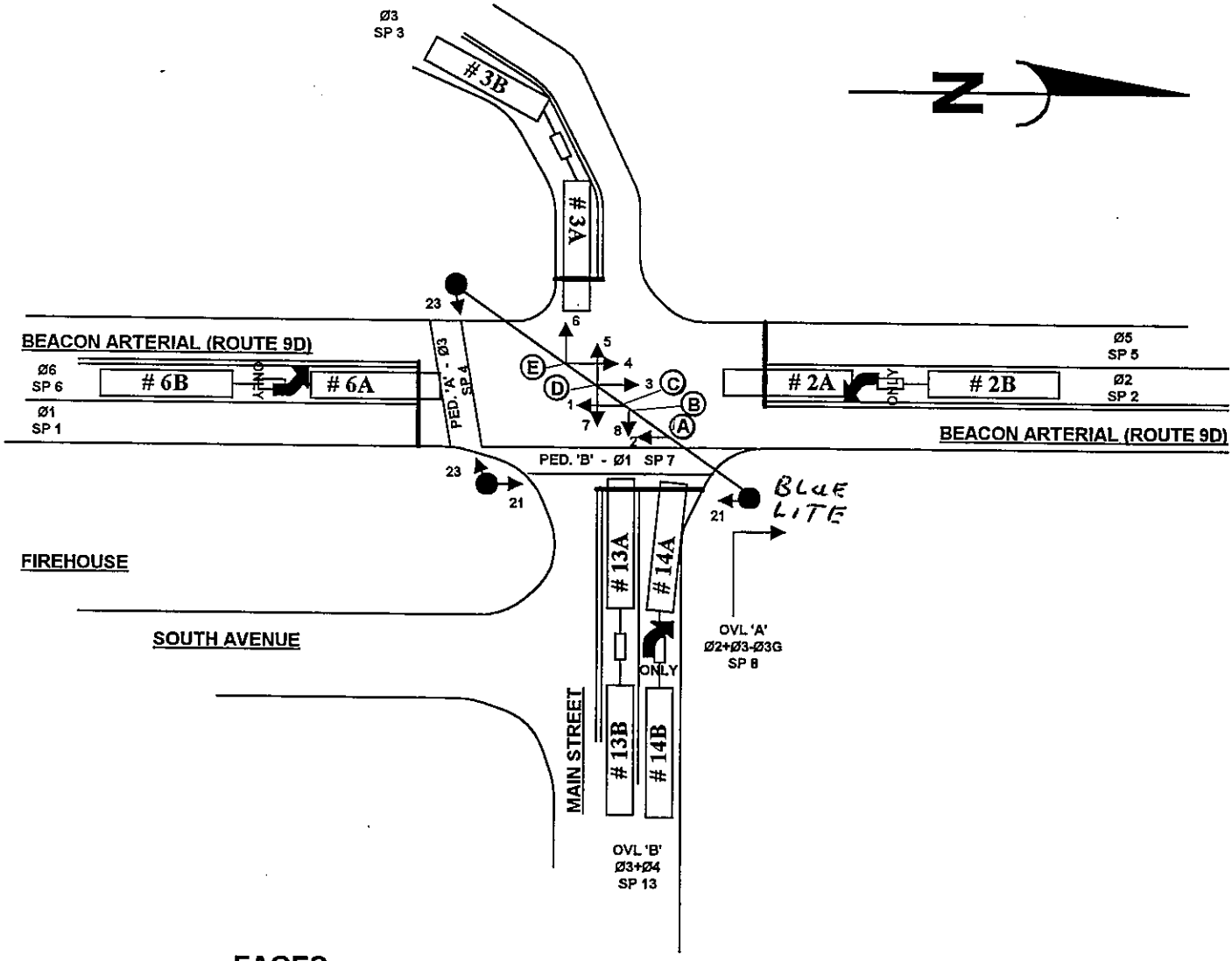
SDLC CHANNEL	FUNCTION	DET. ZONE NO.	DET. TYPE	DET. AN OVER	REMARKS
33	**Ø1**	33	GRIDSMART		PRESENCE
34	**Ø2**	34	GRIDSMART		PRESENCE
35	**Ø3**	35	GRIDSMART		PRESENCE
49	**Ø1 (NORTHBOUND-STRAIGHT)**	49	GRIDSMART		COUNT
50	**Ø2 (NORTHBOUND-LT)**	50	GRIDSMART		COUNT
51	**Ø3 (RT)**	51	GRIDSMART		COUNT
52	**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)

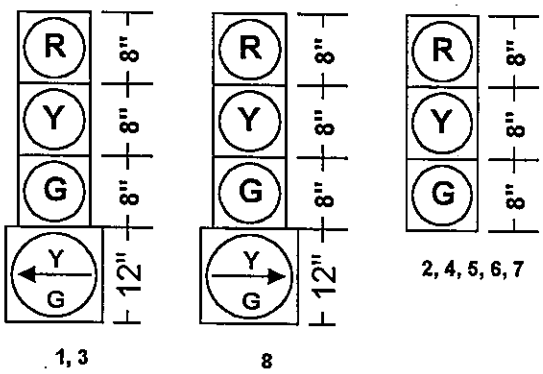
STUDY:
CONTRACT:
PIN:
FILE: 13.01.9D

D25A — SIGNAL NO(S)
DUTCHESS — COUNTY
DATE
PAGE _____ OF _____ PAGES

HWP # 8-95-1120



FACES



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	

Parameters+ 1-64 [5.3]

Det #	occ Yell	occ Red	Dlay 1	Dlay 2	Type	Src
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	
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15															DFT	
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18															DFT	
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28															DFT	
29															DFT	
30															DFT	
31															DFT	
32															DFT	
33															DFT	
34															DFT	
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37															DFT	
38															DFT	
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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	22	None	43	None
2	SECURE	23	None	44	None
3	None	24	None	45	None
4	None	25	None	46	None
5	None	26	None	47	None
6	None	27	None	48	None
7	None	28	None	49	None
8	None	29	None	50	None
9	None	30	None	51	None
10	None	31	None	52	None
11	None	32	None	53	None
12	None	33	None	54	None
13	None	34	None	55	None
14	None	35	None	56	None
15	None	36	None	57	None
16	None	37	None	58	None
17	None	38	None	59	None
18	None	39	None	60	None
19	None	40	None	61	None
20	None	41	None	62	None
21	None	42	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				
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																

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)								

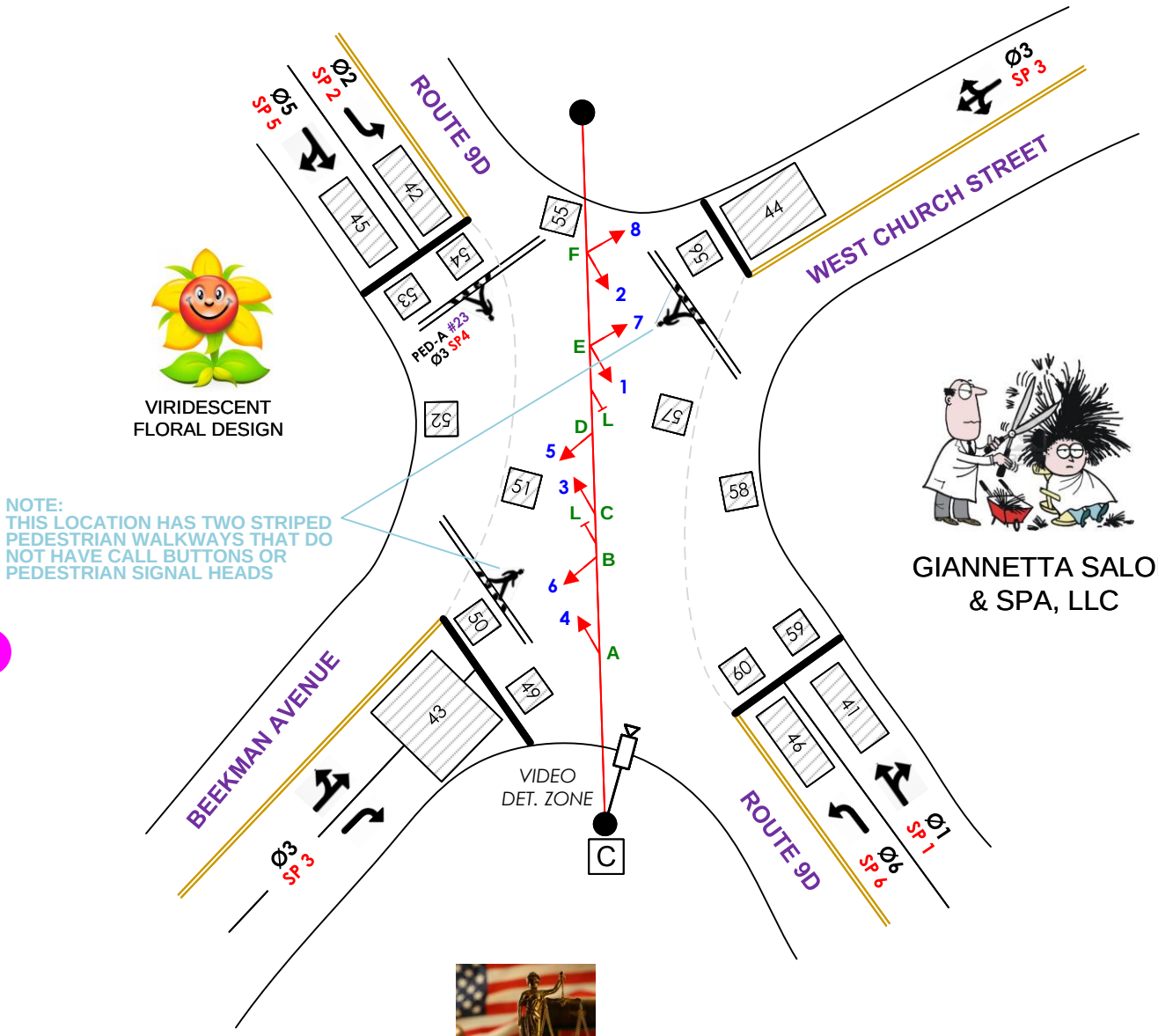
Unit Parameters [1.2.1]

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					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																

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

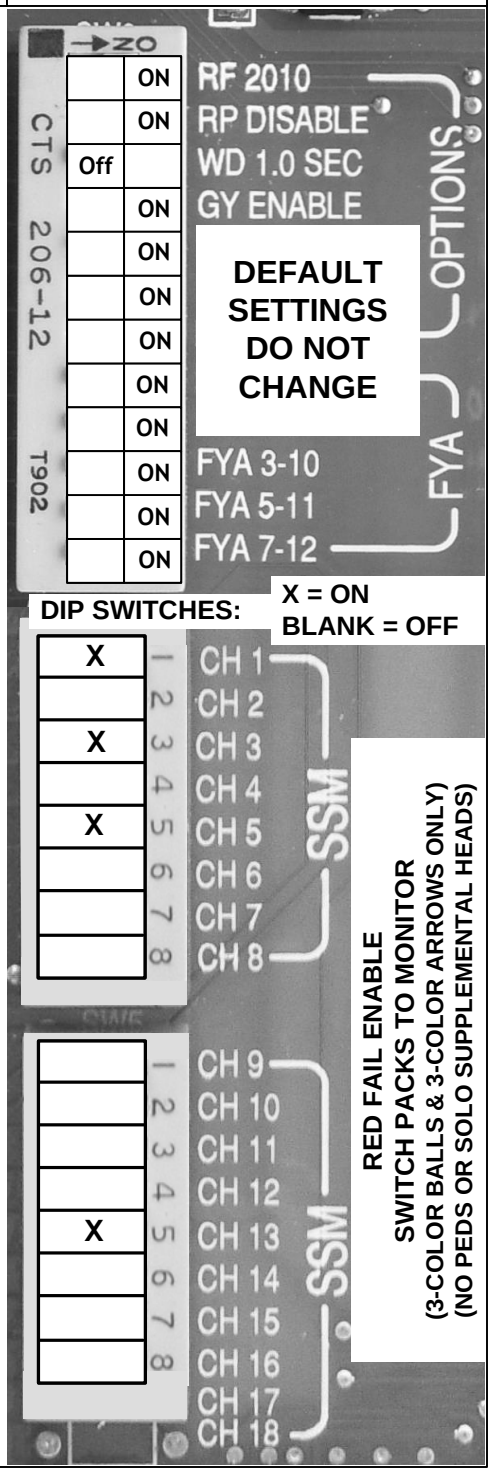
CONFLICT MONITOR DIODES TO BE CUT
(SWITCH PACKS TO RUN TOGETHER)

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

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 dissemina 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 erro (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, dat 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 inter 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.

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.

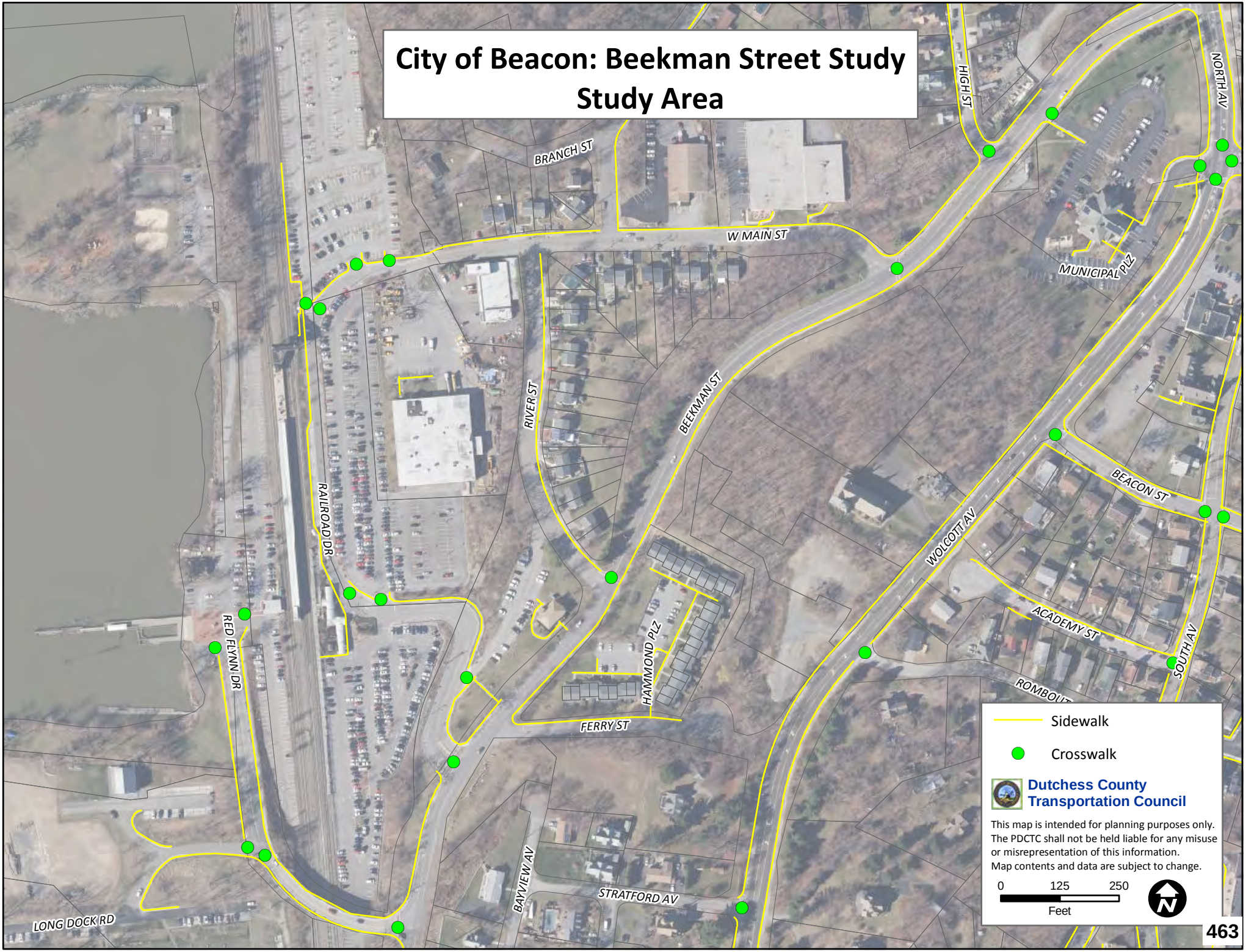
[9] See Bike Route Guide signs in MUTCD Section 9B.20, Figures 9B-4 and 9B-6

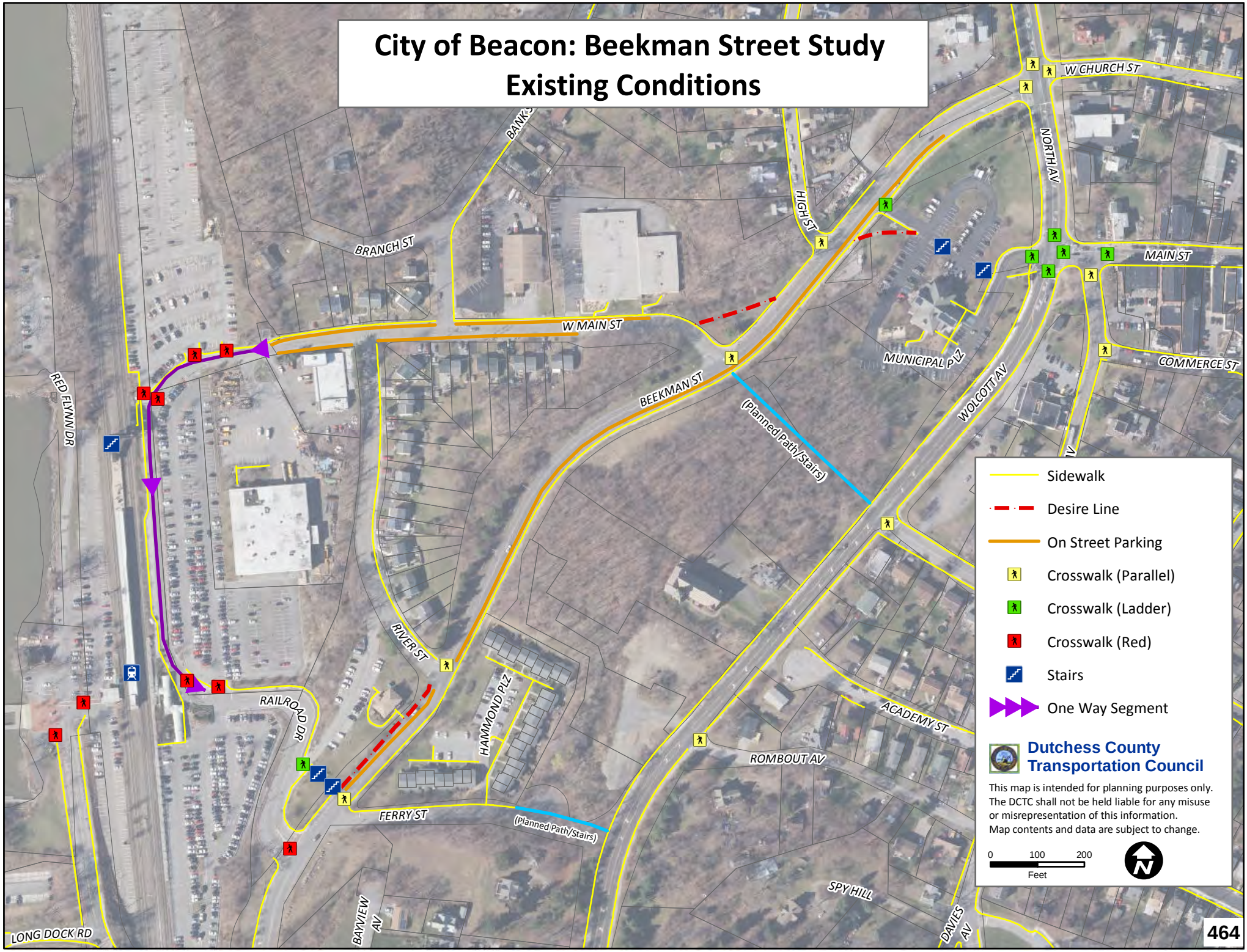
[10] Bicycle parking guidance is available online at http://www.co.dutchess.ny.us/CountyGov/Departments/TransportationCouncil/17205.htm.

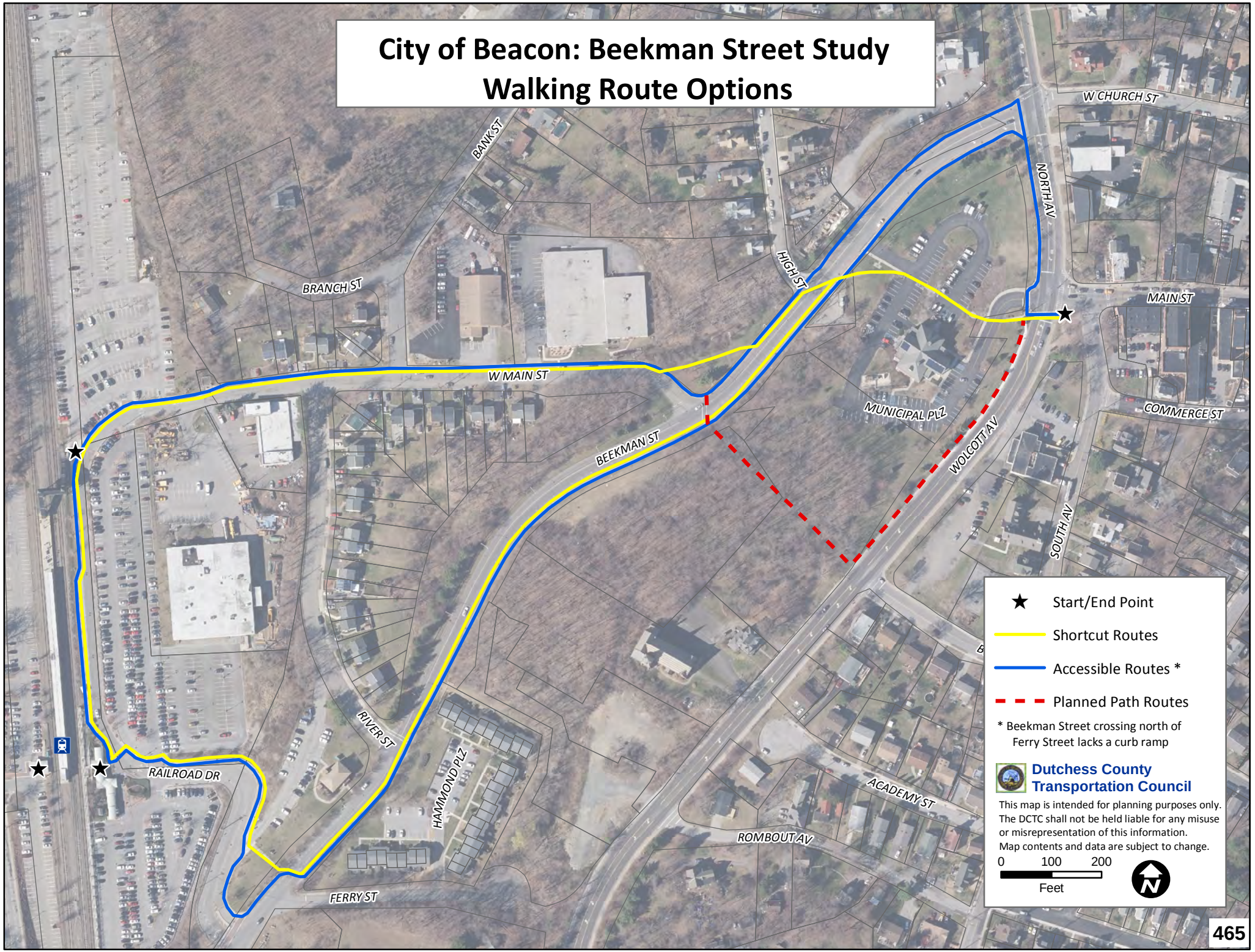
[11] For images of Bicycle Enclosures, see Google images. For Bike Stations, see http://bikehub.com/caltrain-bike-station/ and http://home.bikestation.com/.

[12] See the County's online Bicycle Parking Finder for a current inventory of bike parking: https://geoaccess.co.dutchess.ny.us/bicycleparking/

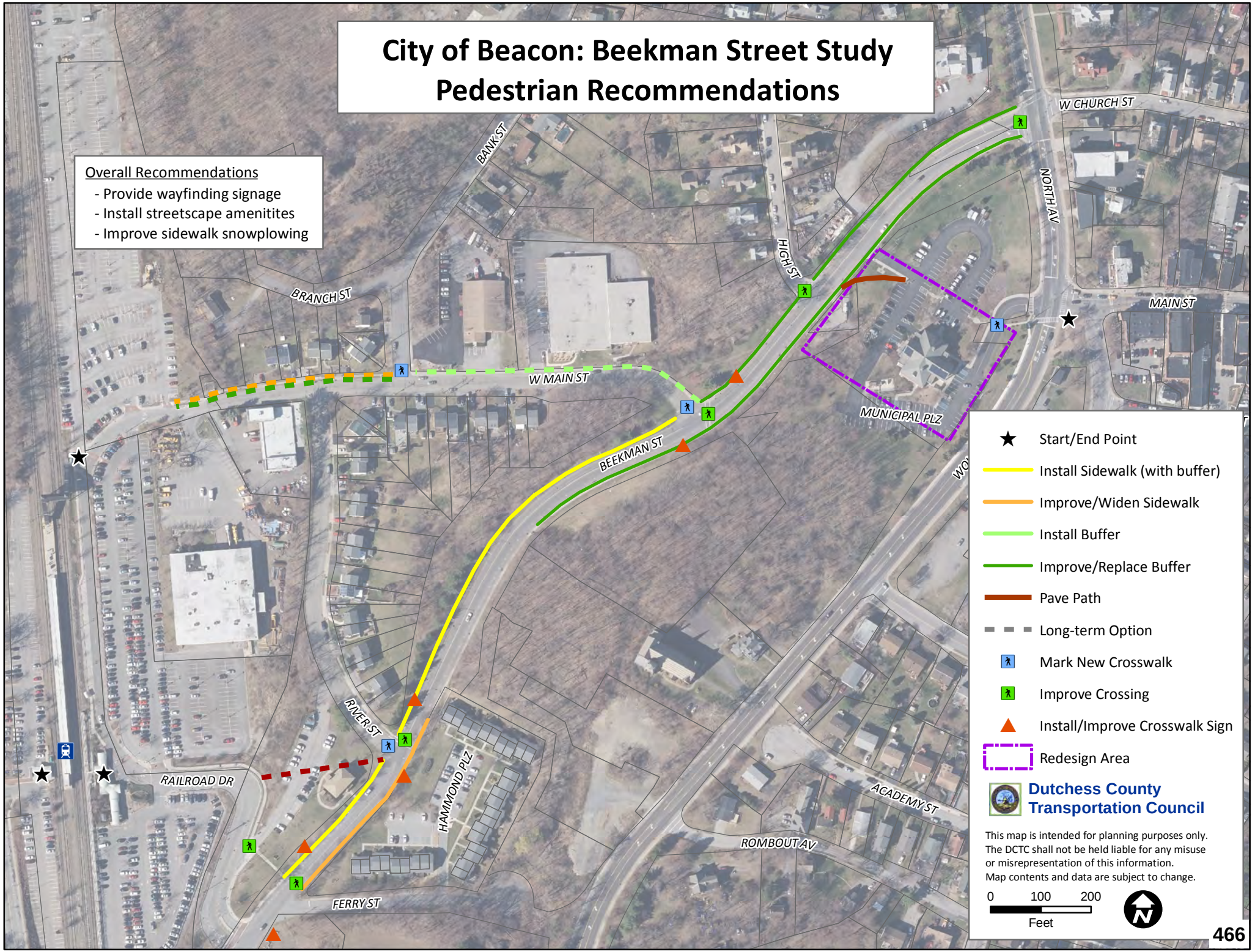
City of Beacon: Beekman Street Study
Study Area



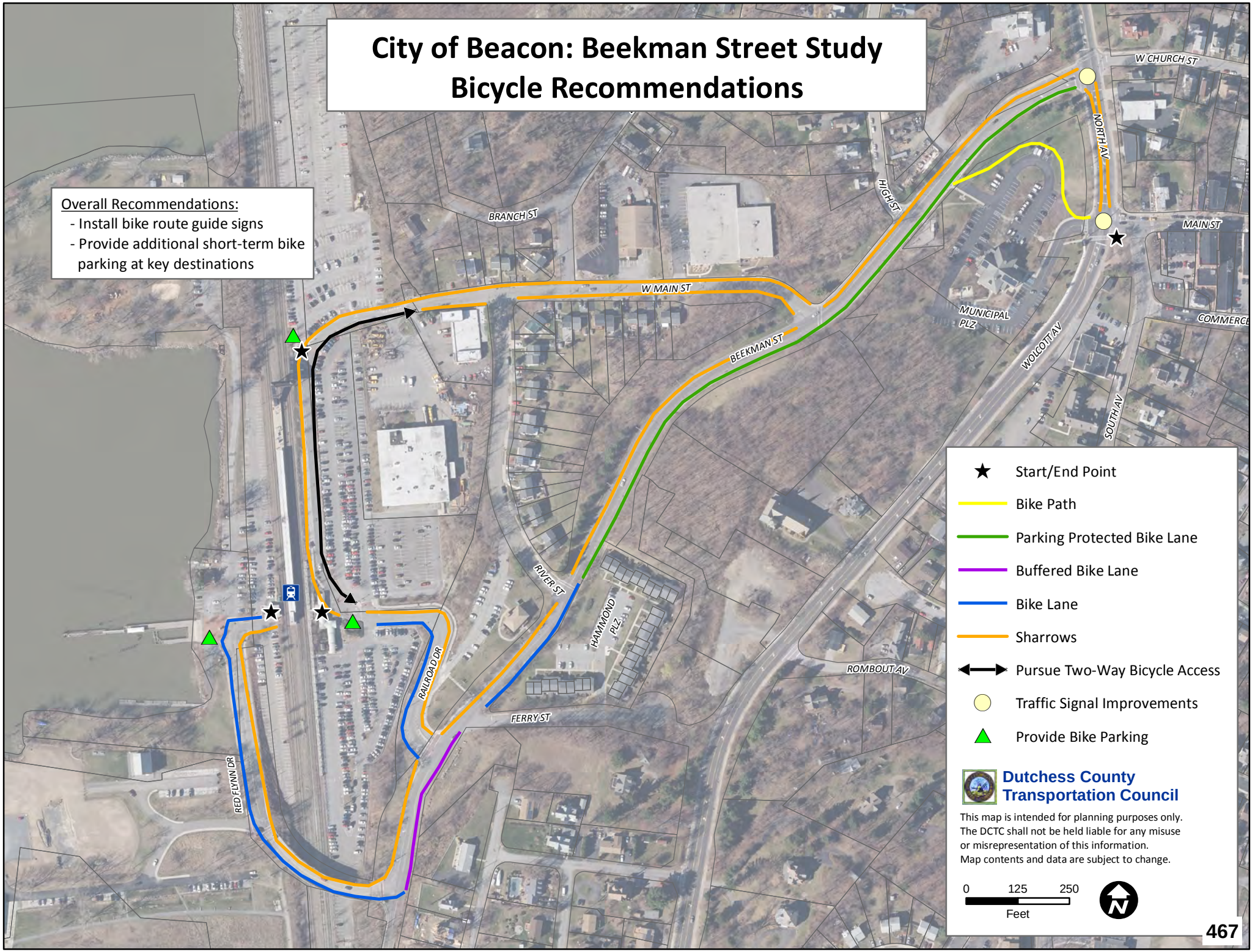

City of Beacon: Beekman Street Study
Existing Conditions
W CHURCH ST
NORTH AV
HIGH ST
BANK
BRANCH ST
W MAIN ST
MAIN ST
COMMERCE ST
MUNICIPAL PLZ
WOLCOTT AV
BEEKMAN ST
(Planned Path/Stairs)
RED FLYNN DR
RIVER ST
RAILROAD DR
HAMMOND PLZ
ACADEMY ST
ROMBOUT AV
FERRY ST
(Planned Path/Stairs)
SPY HILL
DAVIES 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
464


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
BEEKMAN ST
WOLCOTT AV
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
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
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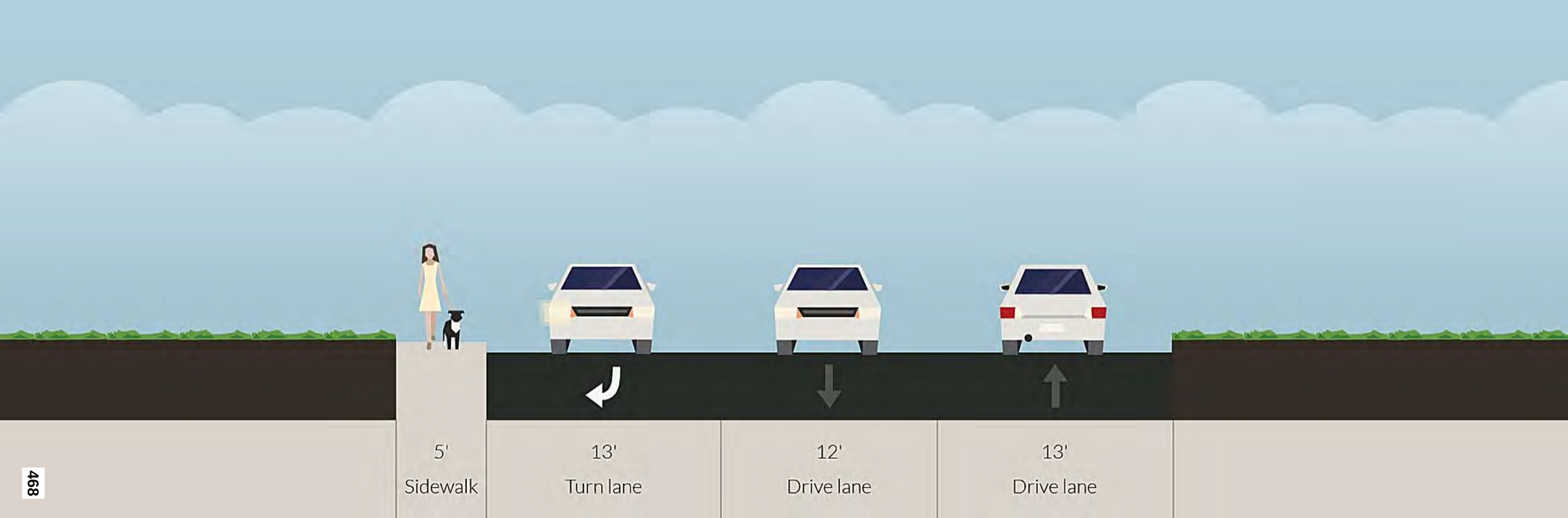
City of Beacon: Beekman Street Study
Pedestrian Recommendations



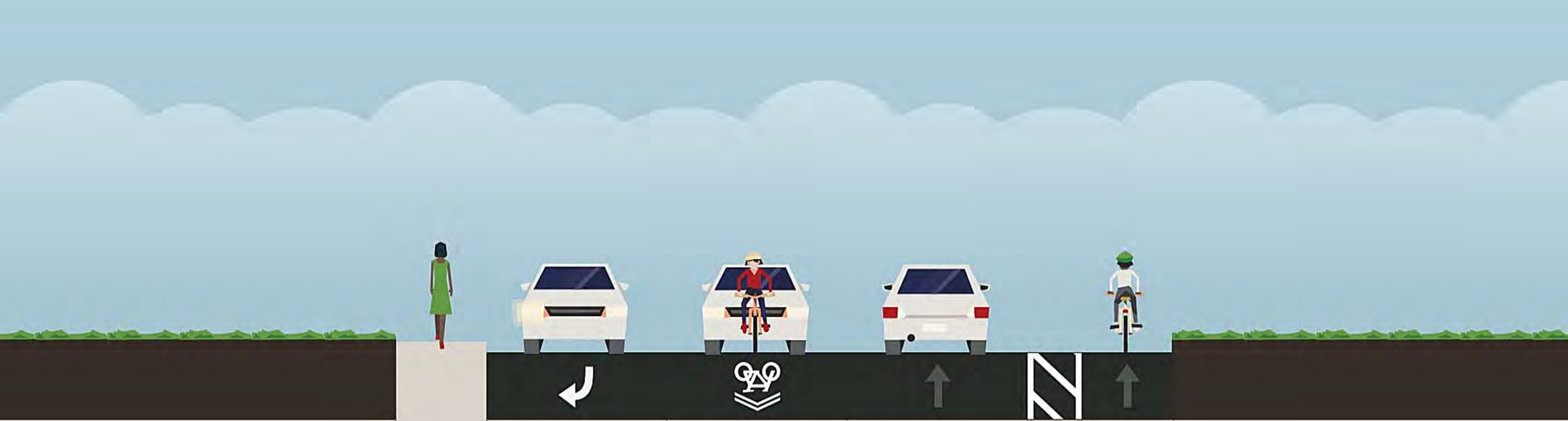
City of Beacon: Beekman Street Study
Bicycle Recommendations



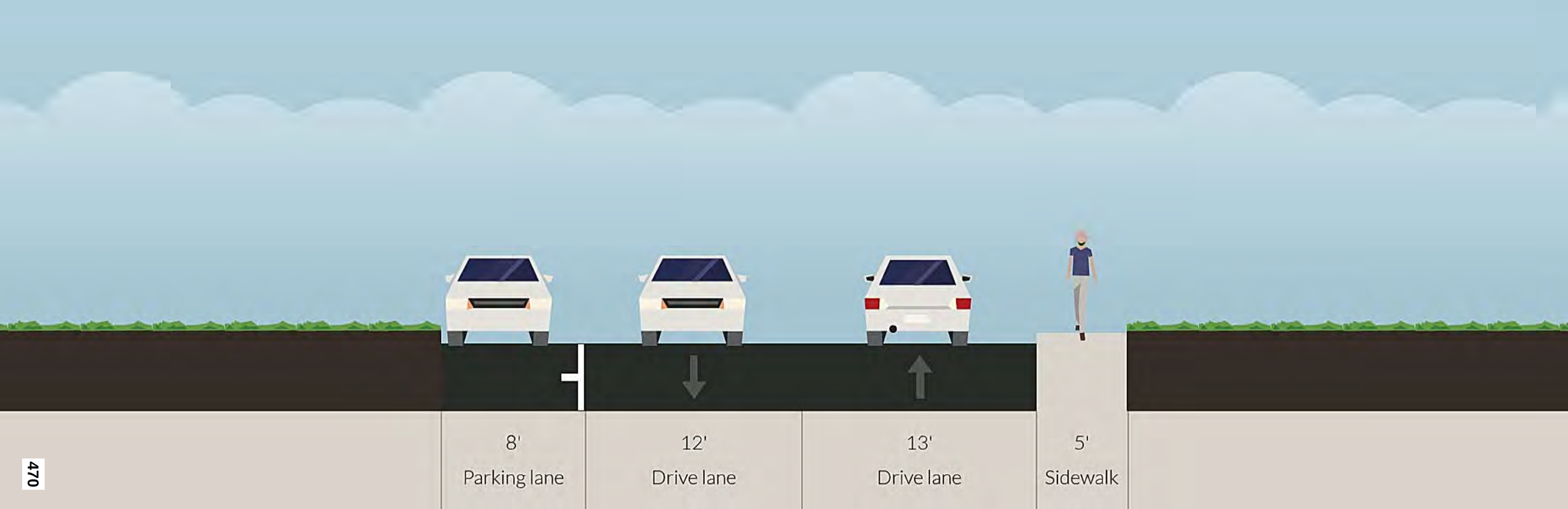
Beekman St: Red Flynn–Ferry (existing)



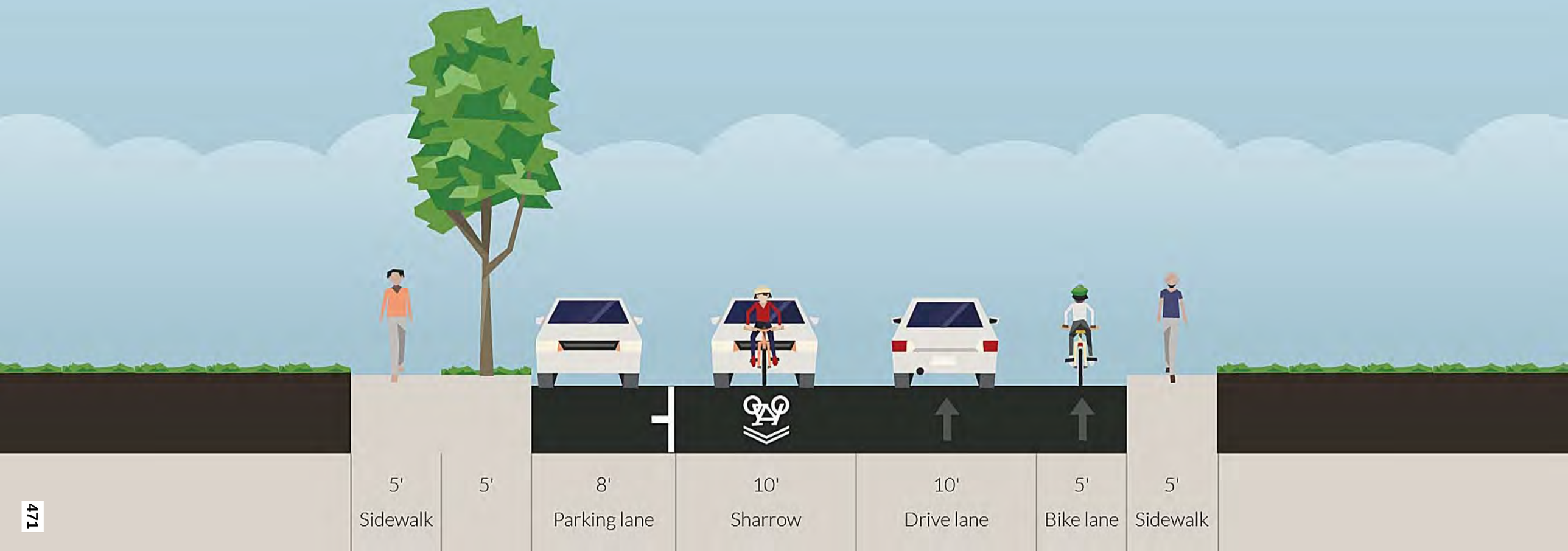
Beekman St: Red Flynn–Ferry (proposed)



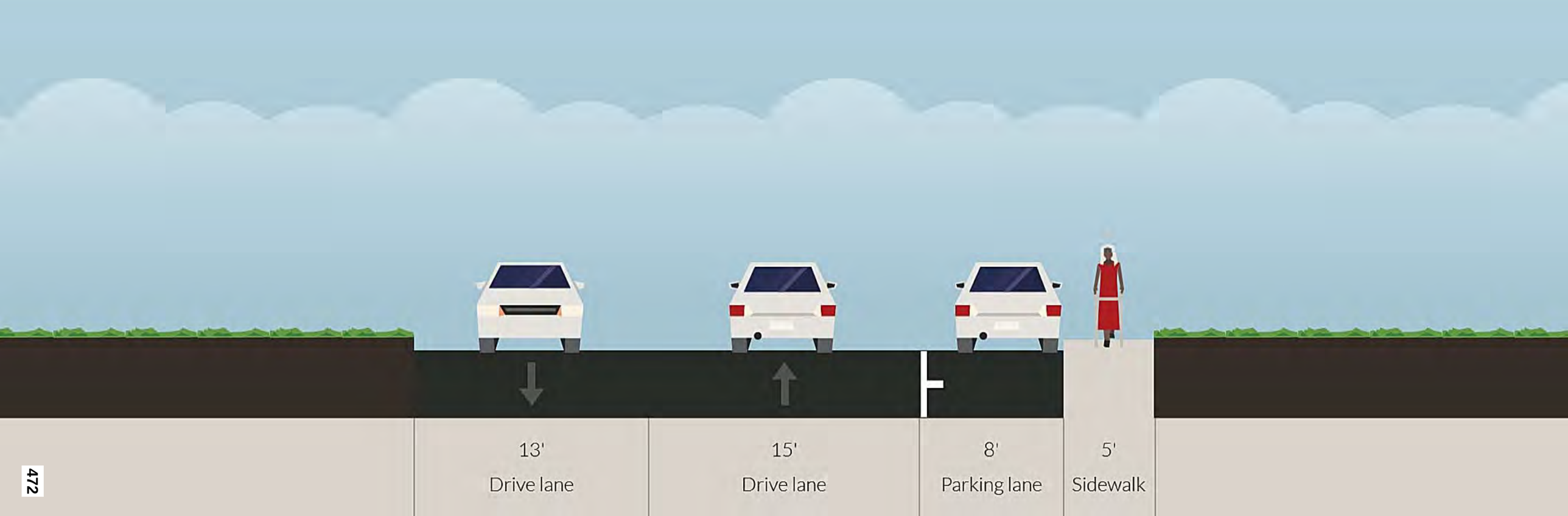
Beekman St: Ferry – River (existing)



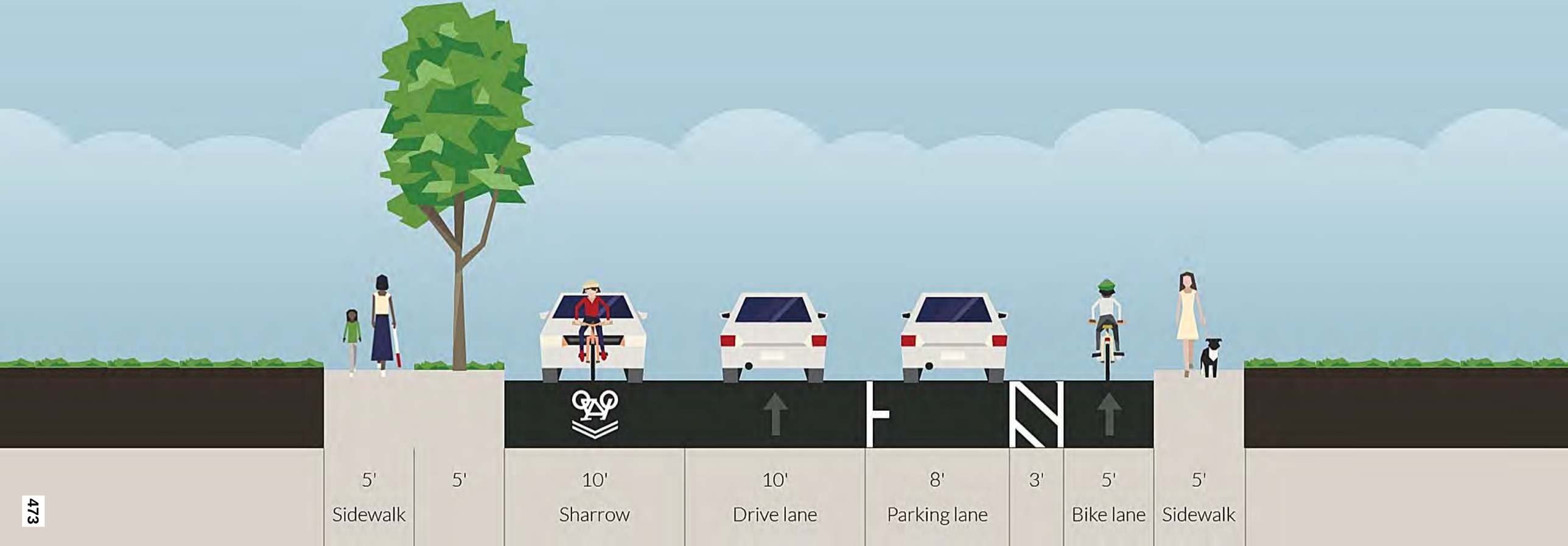
Beekman St: Ferry – River (proposed)



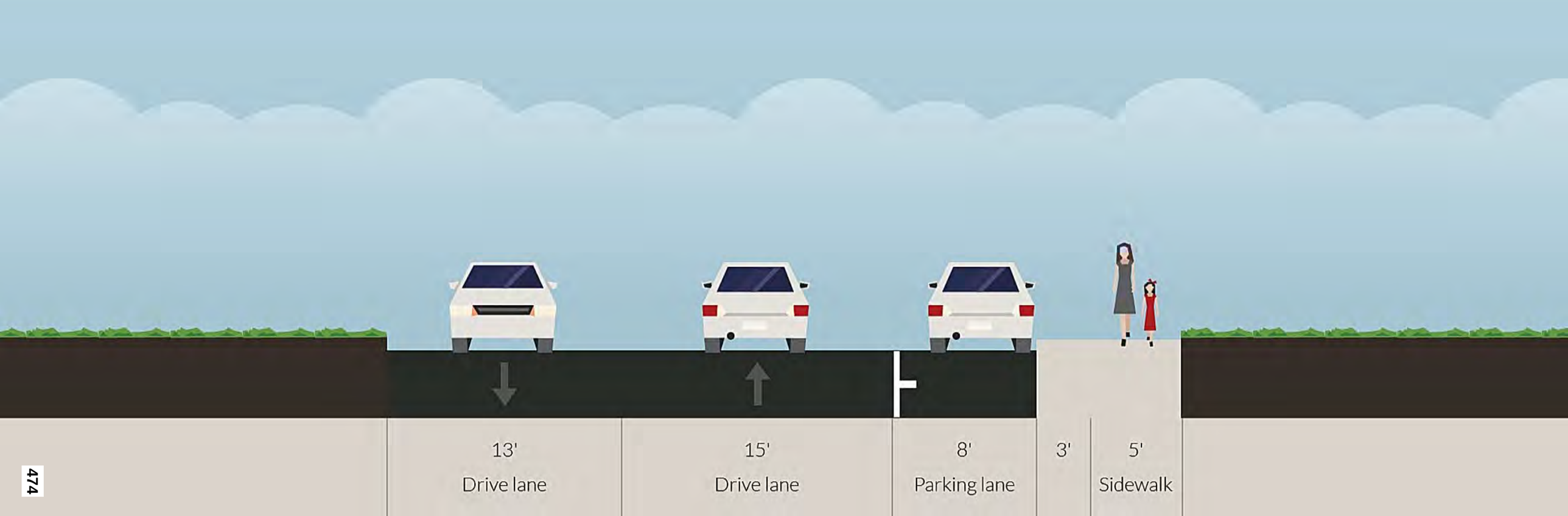
Beekman St: River–W Main (existing)



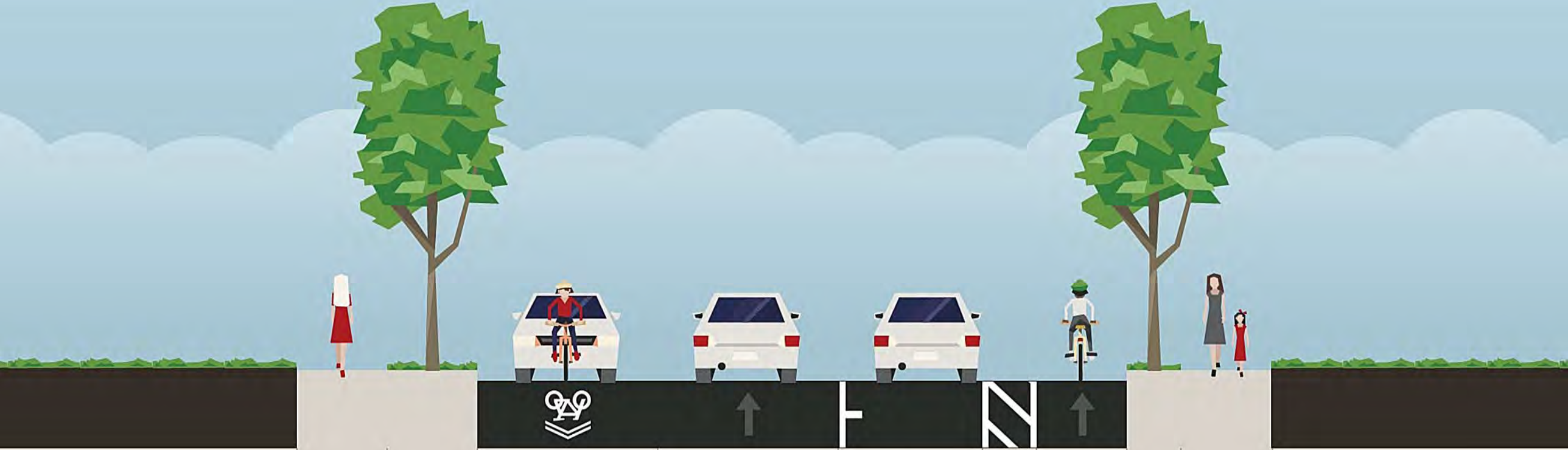
Beekman St: River–W Main (proposed)



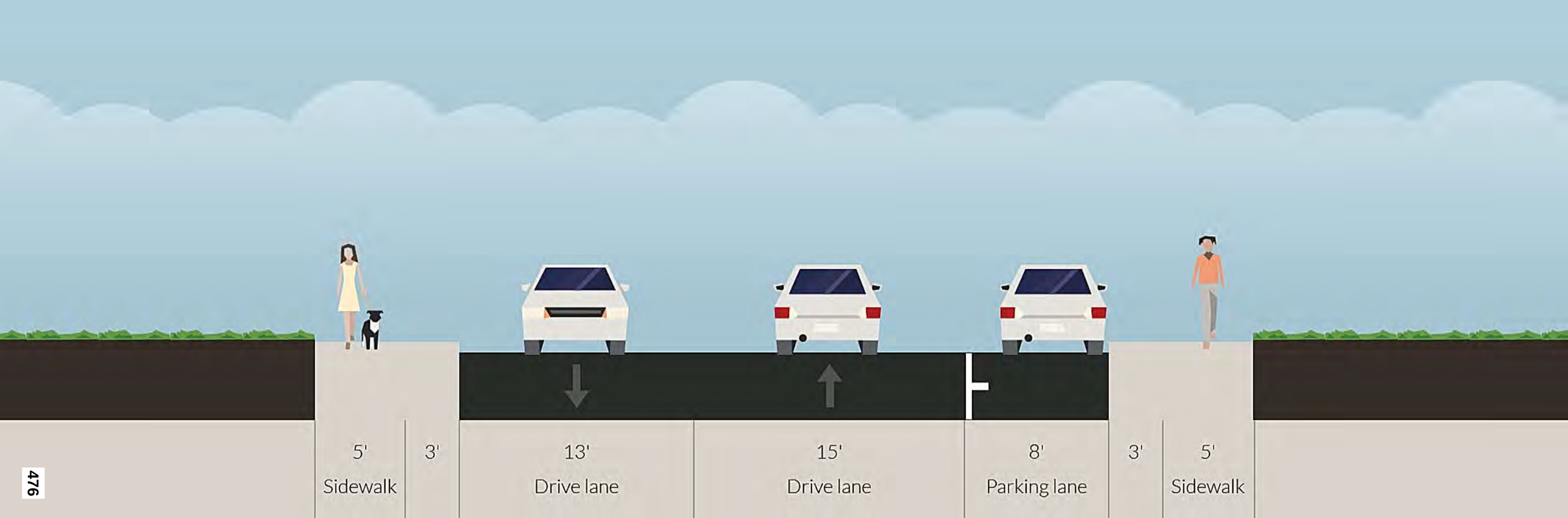
Beekman St: south of W Main St (existing)



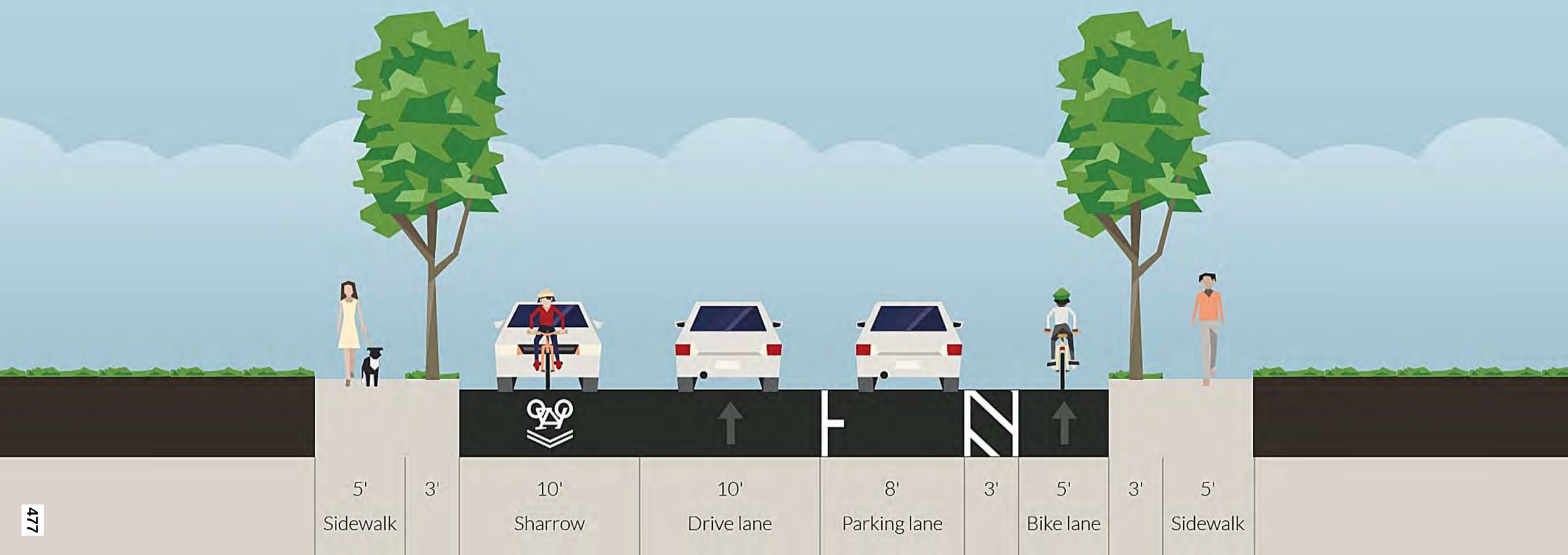
Beekman St: south of W Main St (proposed)



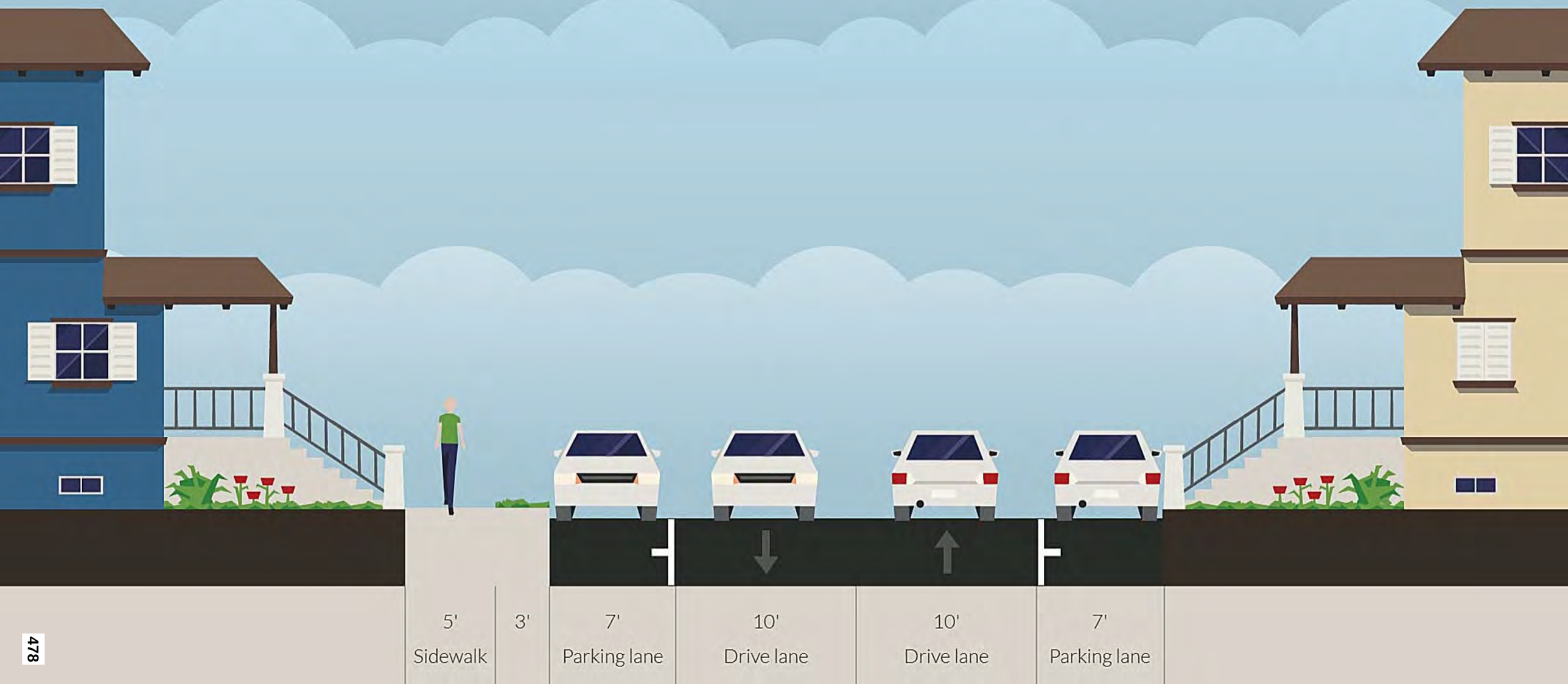
Beekman St: West Main St – 9D (existing)



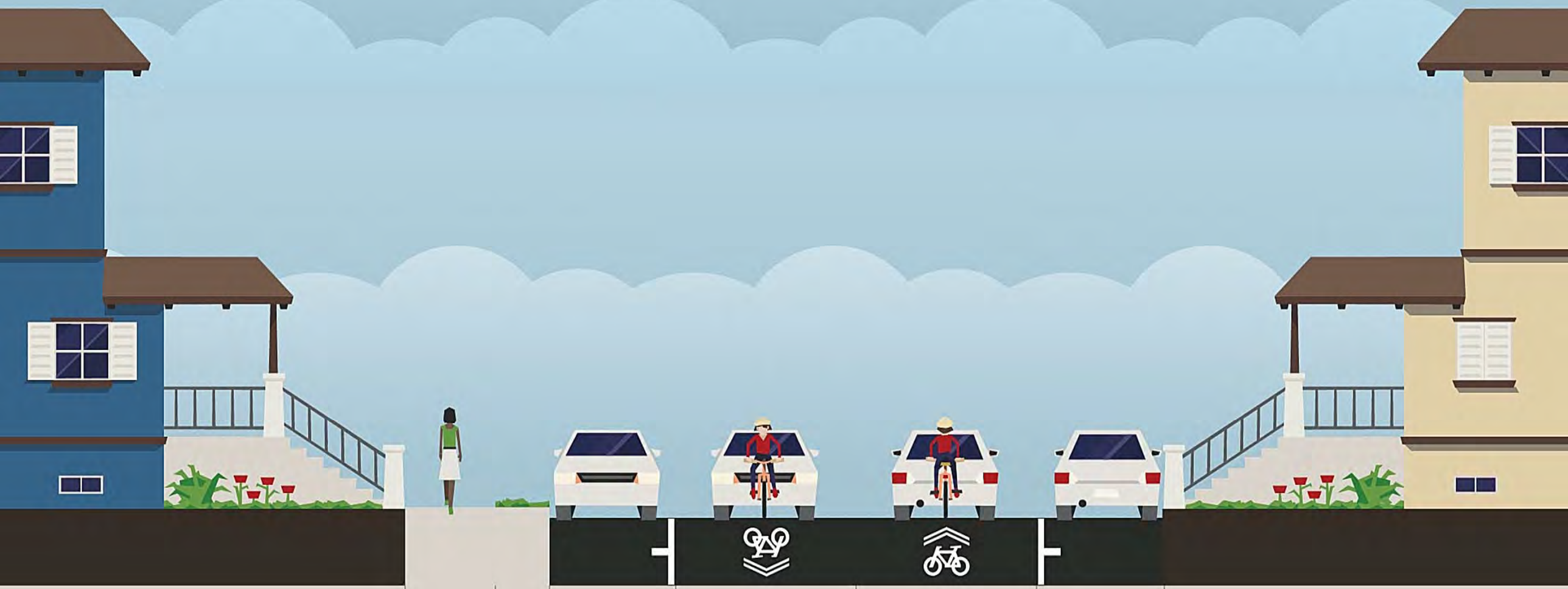
Beekman St: West Main St – 9D (proposed)



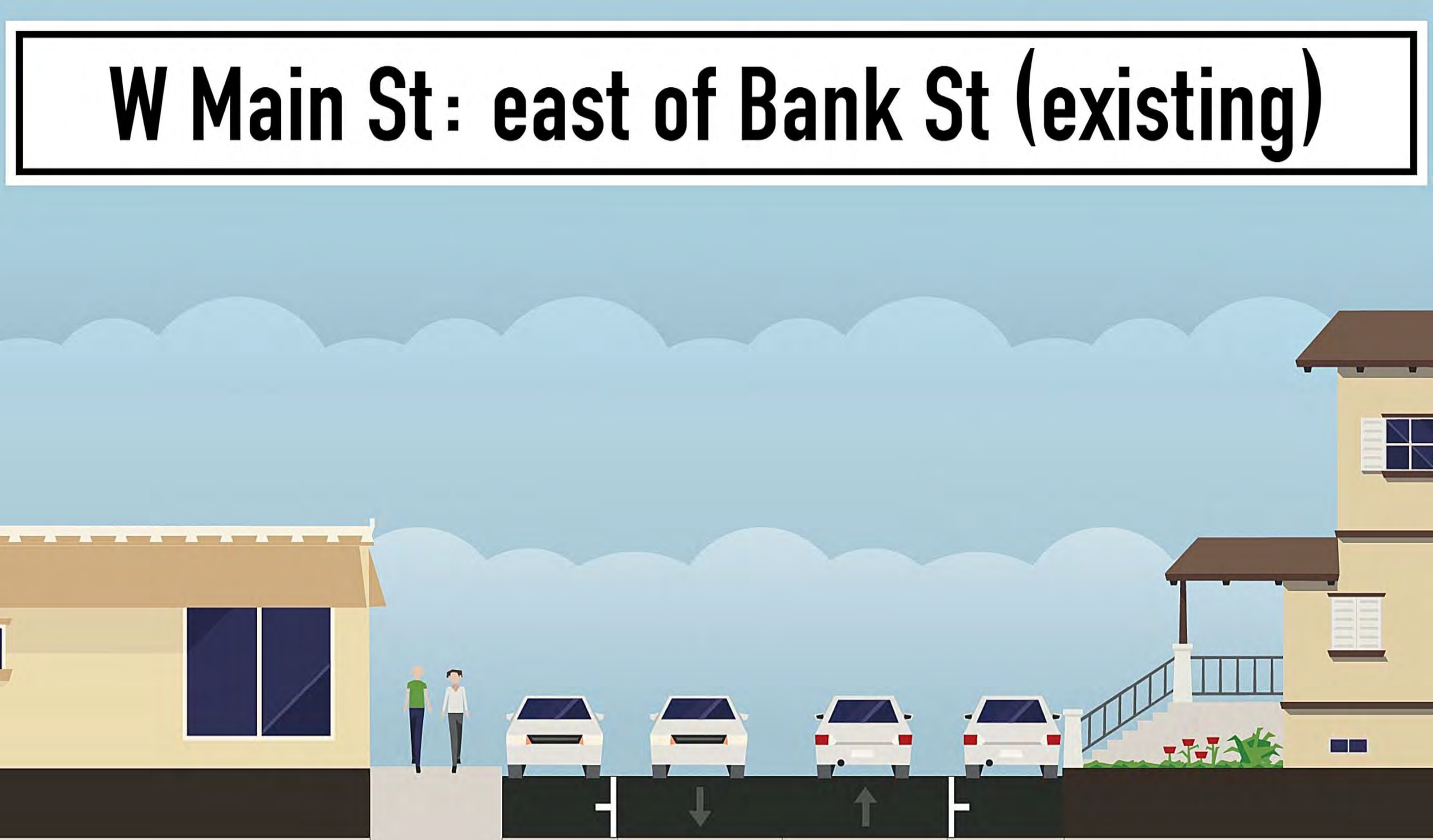
W Main St: west of Bank St (existing)



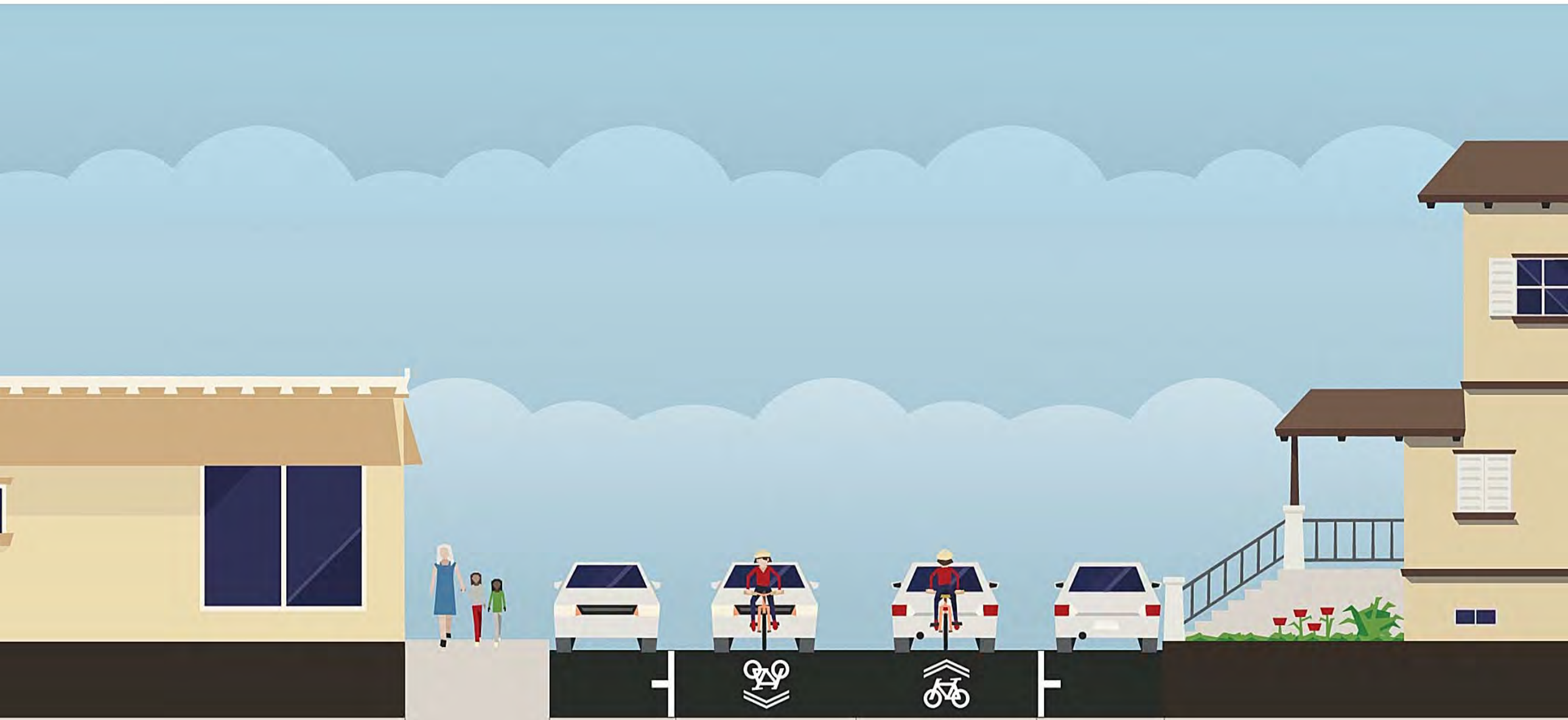
W Main St: west of Bank St (proposed)



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.

: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]**

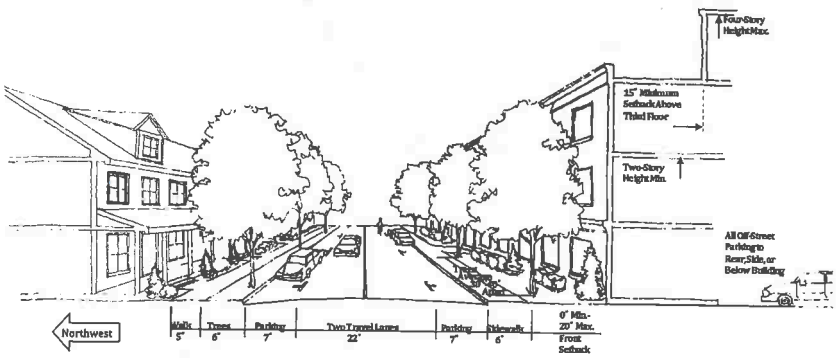
(6) Lot area and lot width: There are no minimum lot area or lot width requirements.

(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



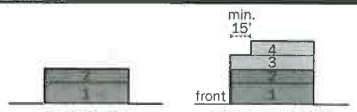
(10) Linkage Zone standards.

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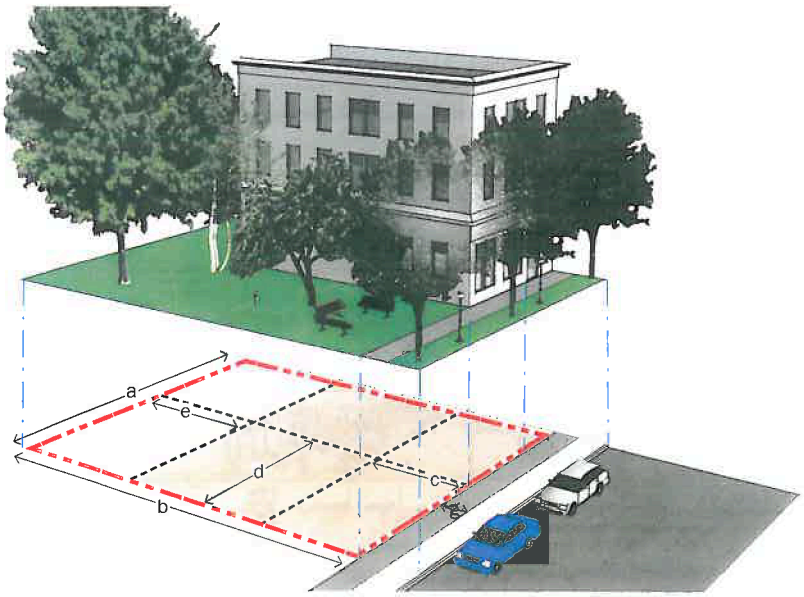
Figure 21-1: Linkage Zone Standards

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

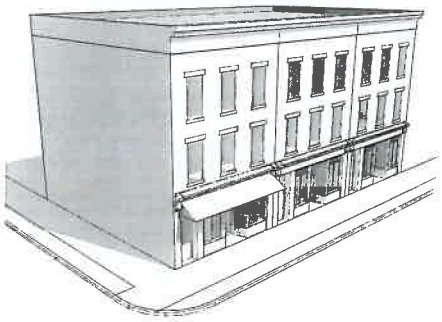


Figure 21-3: Section View of Storefront Frontage Type

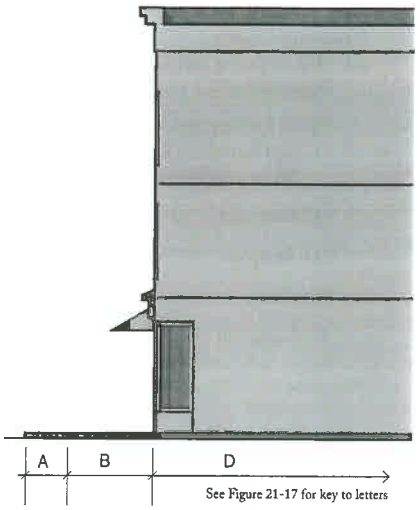
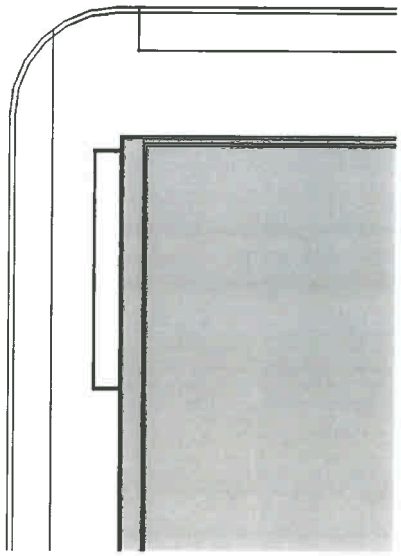


Figure 21-4: Plan View of Storefront Frontage Type



(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

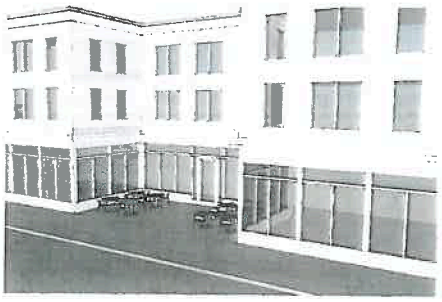
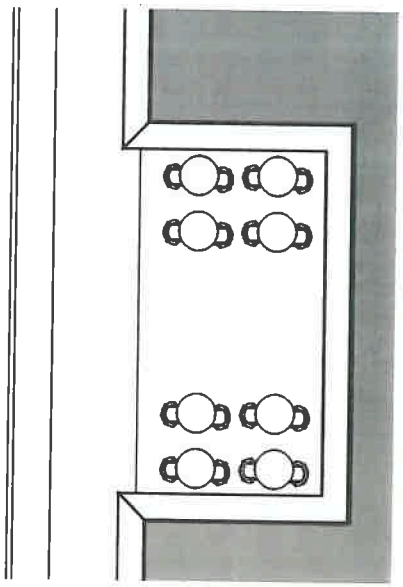


Figure 21-6: Section View of Forecourt Frontage Type



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

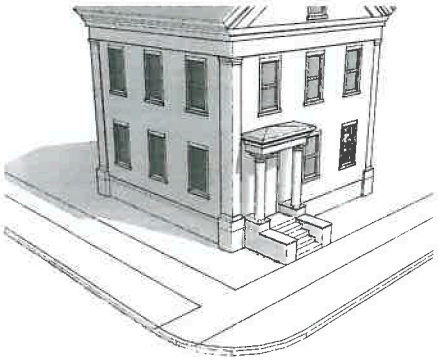


Figure 21-9: Section View of Stoop Frontage Type

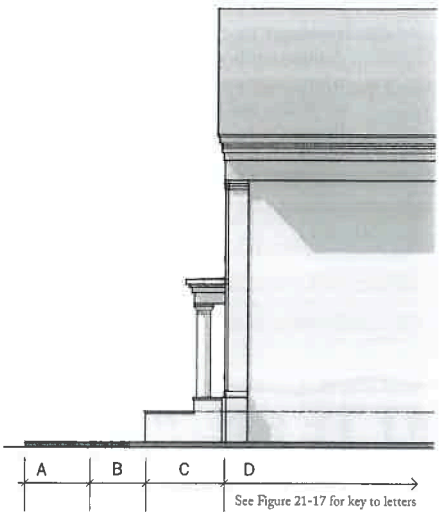
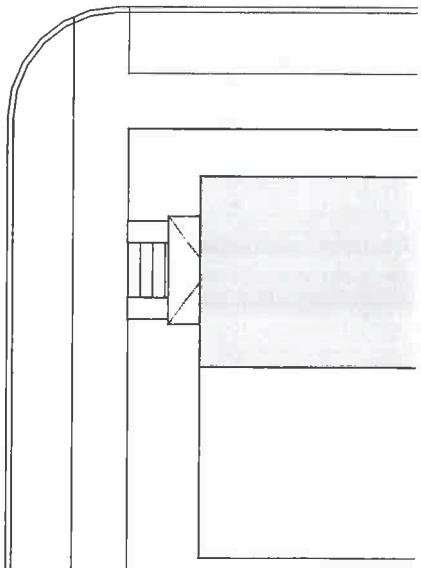


Figure 21-10: Plan View of Stoop Frontage Type



(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

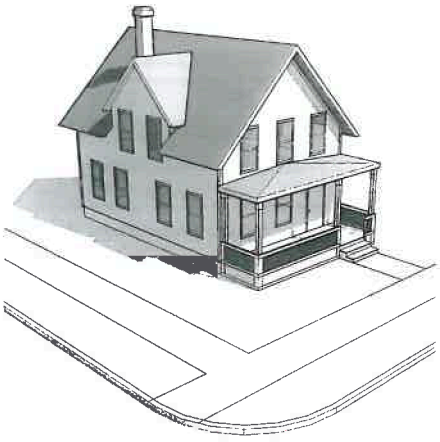
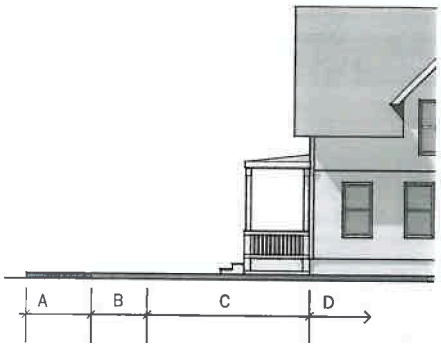
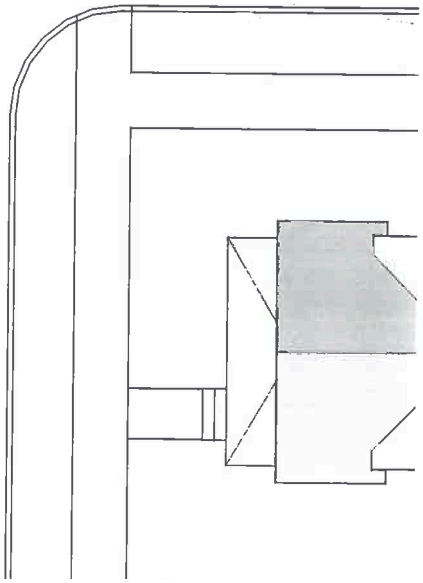


Figure 21-12: Section View of Porch Frontage Type



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

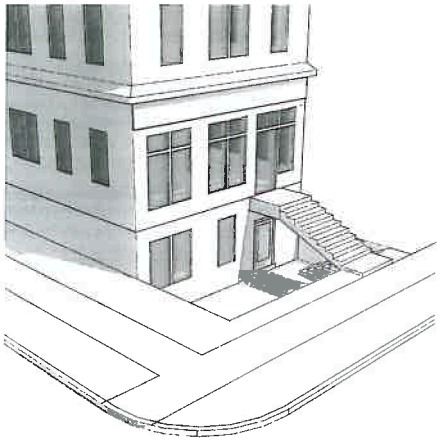
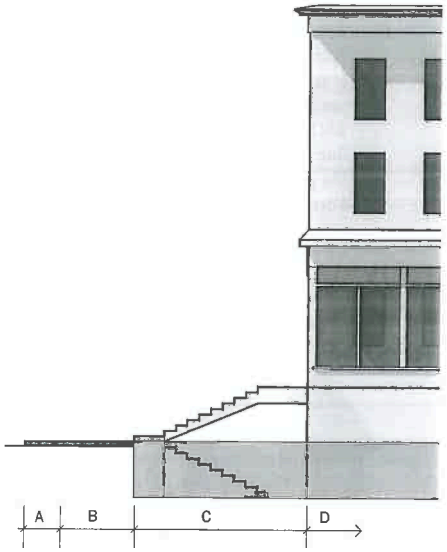
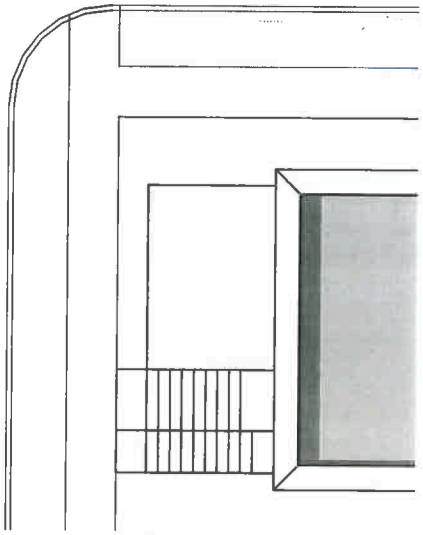


Figure 21-15: Section View of Lightwell Frontage Type



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.

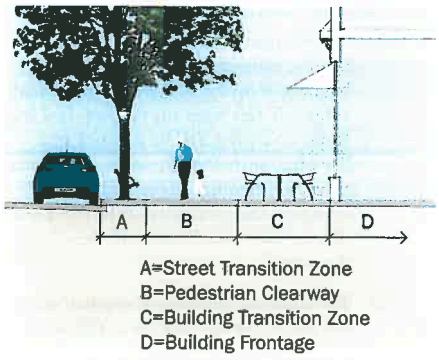
(2) A pedestrian clearway, at least five feet wide, with unobstructed space for pedestrian activity, shall be provided along the sidewalk, unless site conditions require a narrower clearway. A pedestrian clearway of eight feet shall be provided along storefront frontages.

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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]

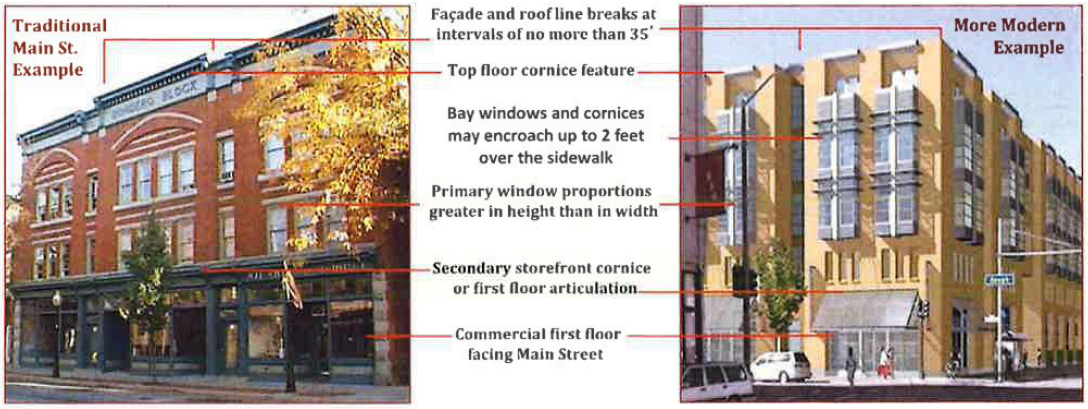
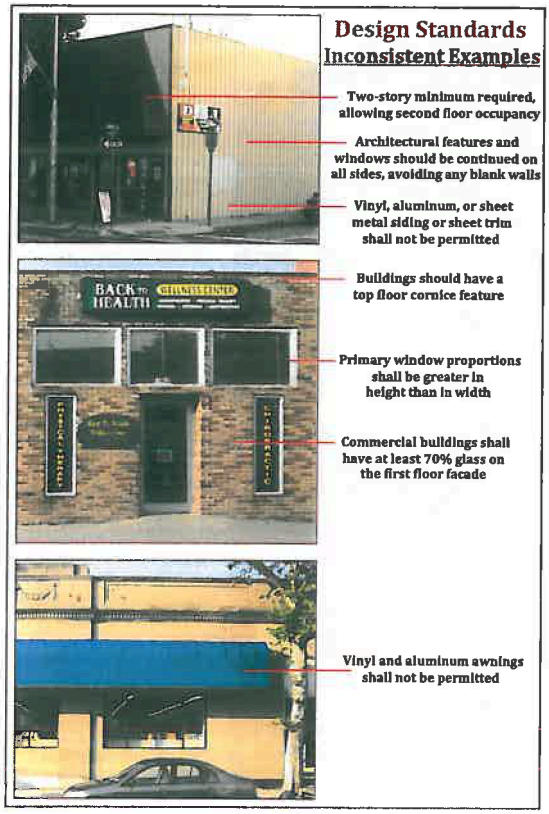
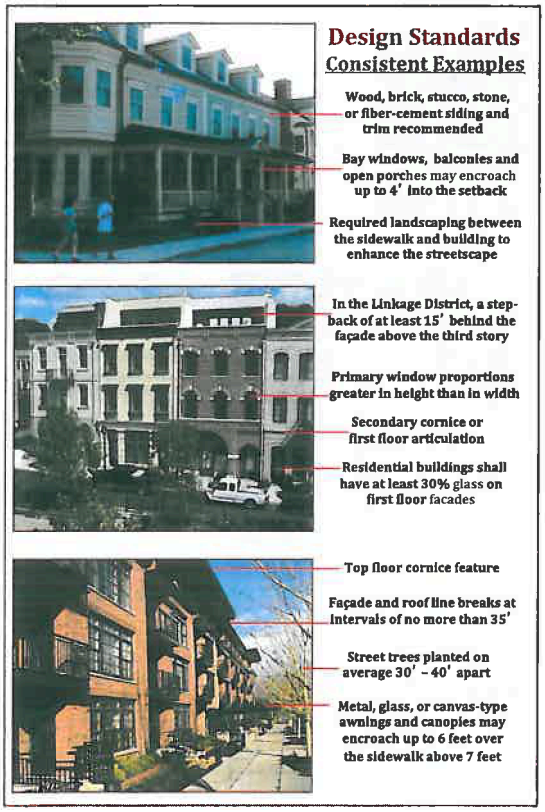


Figure 21-19: Design Standards Examples B



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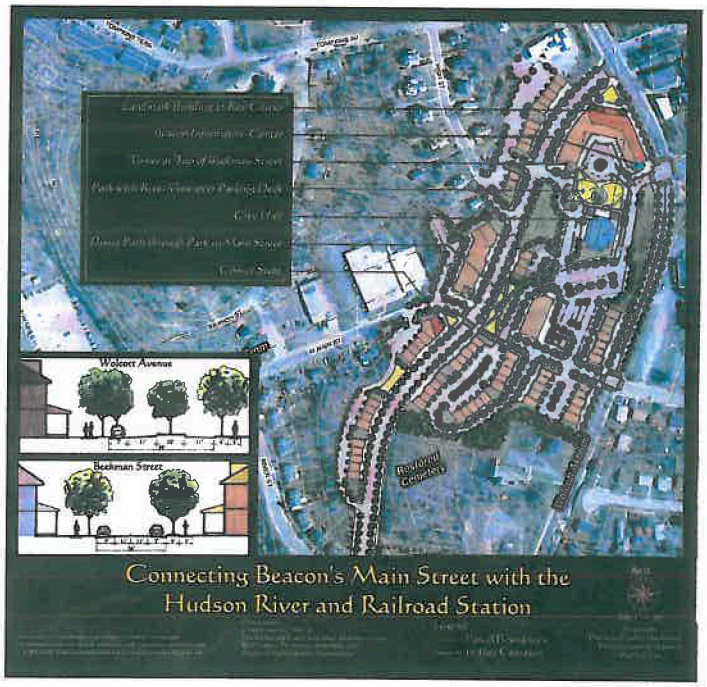
Figure 21-20: Design Standards Examples C



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

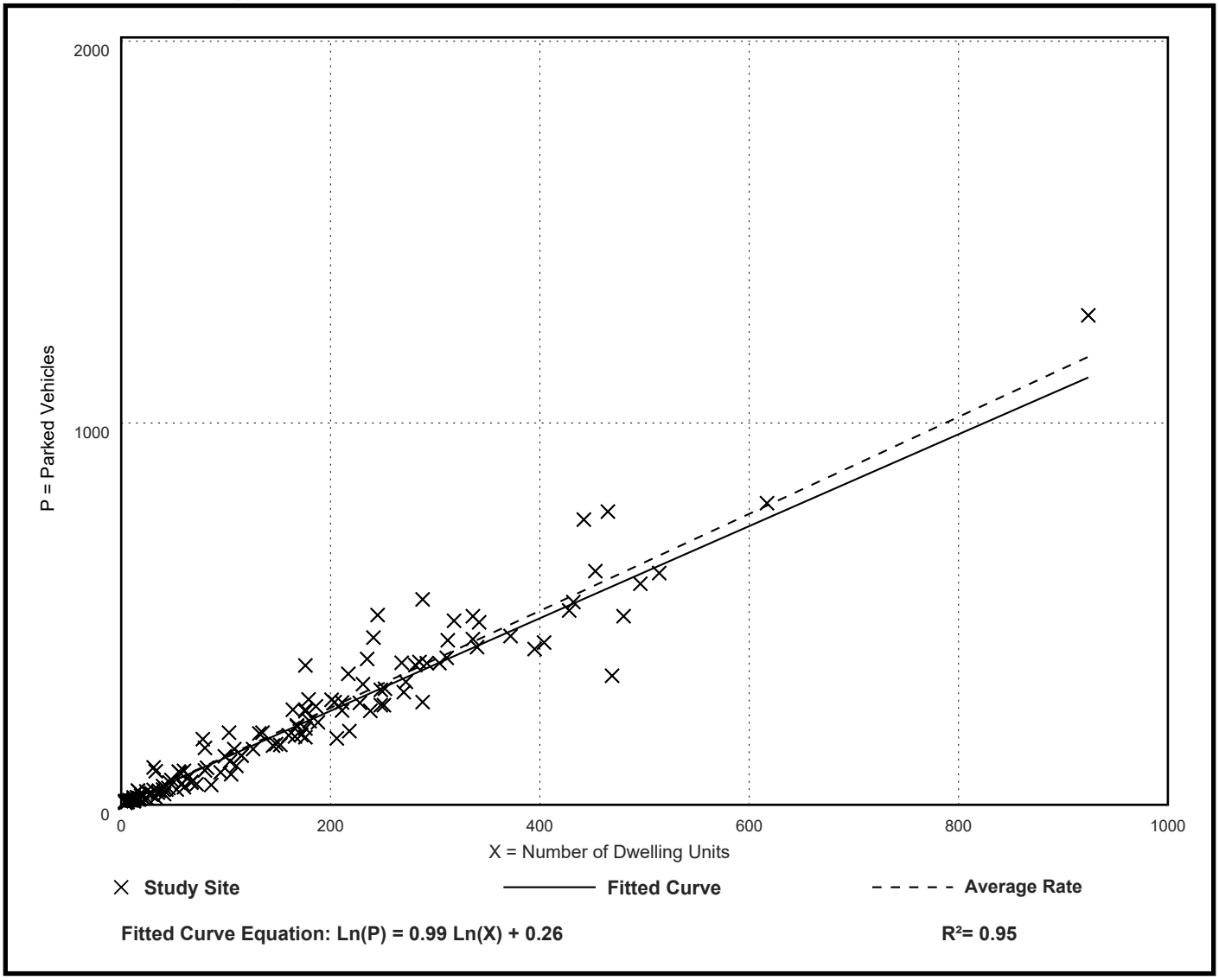
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

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

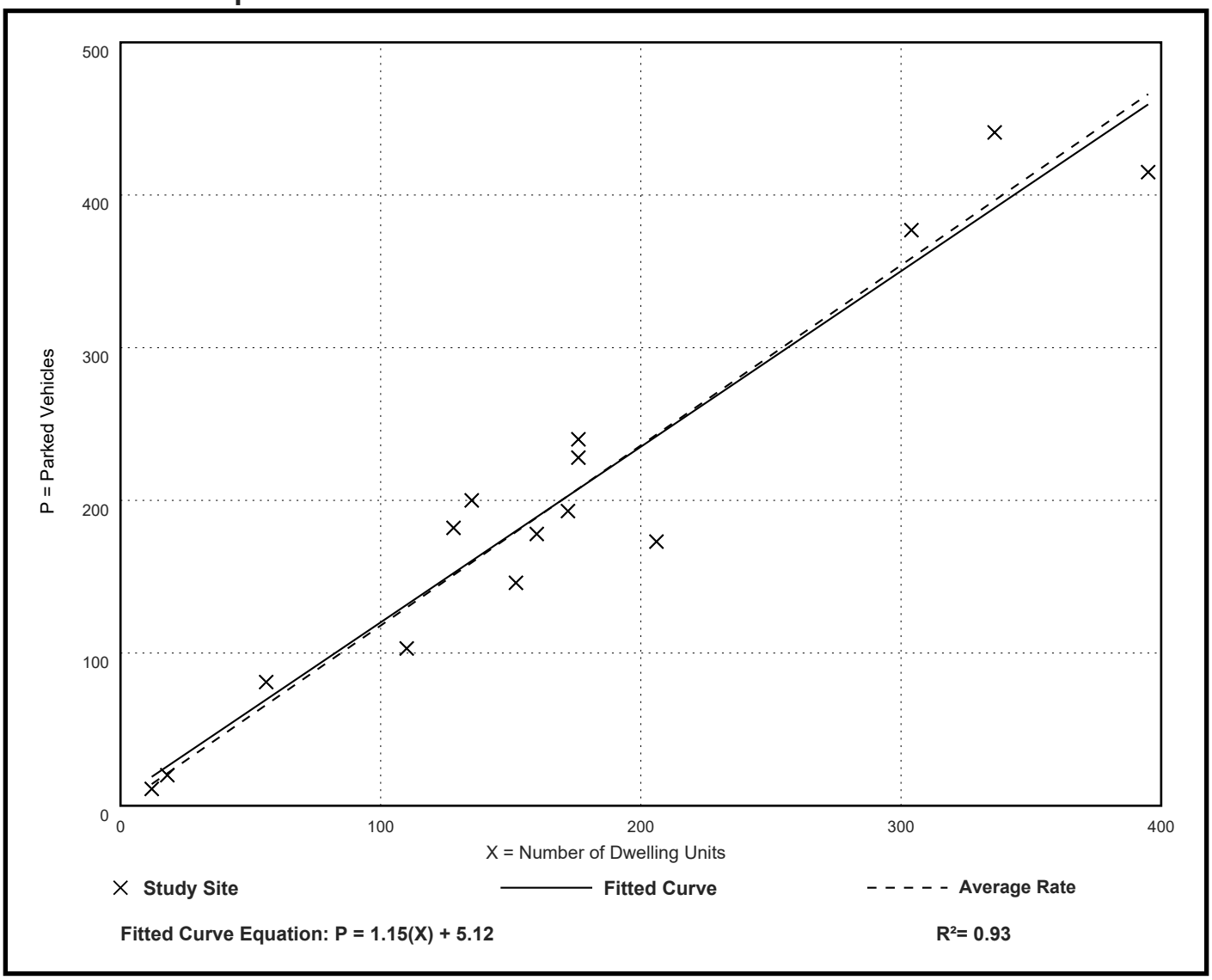
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

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

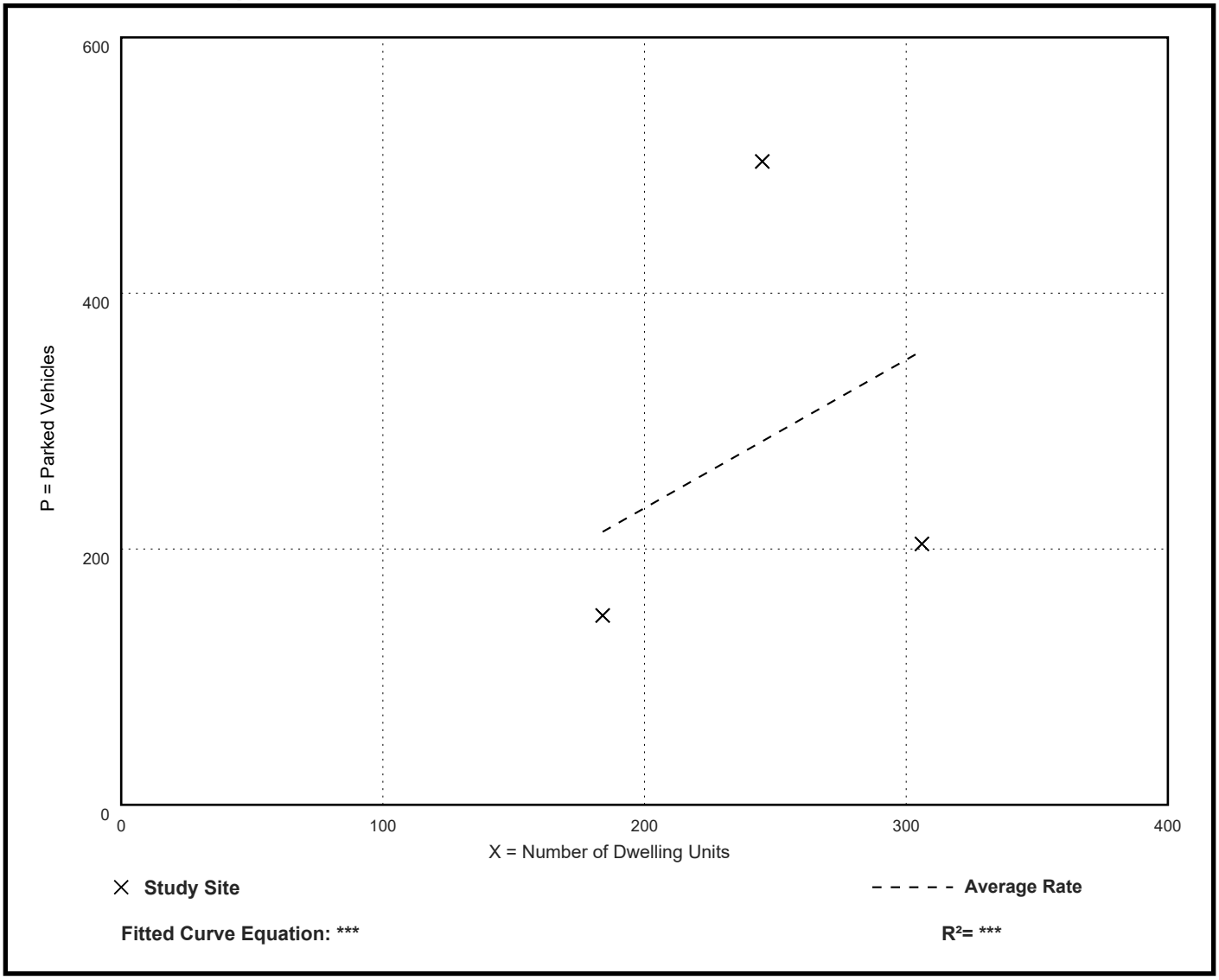
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

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= ***

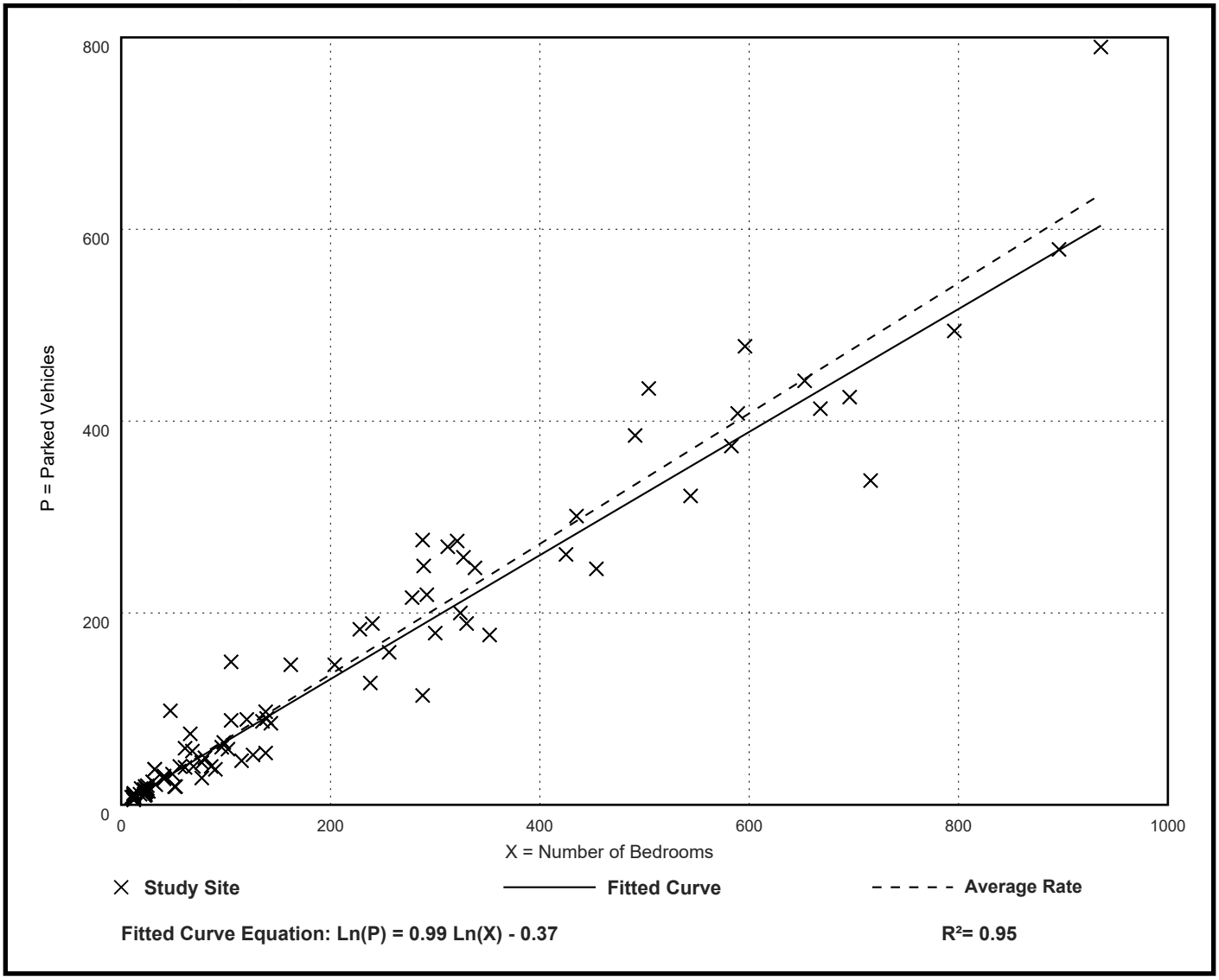
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

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

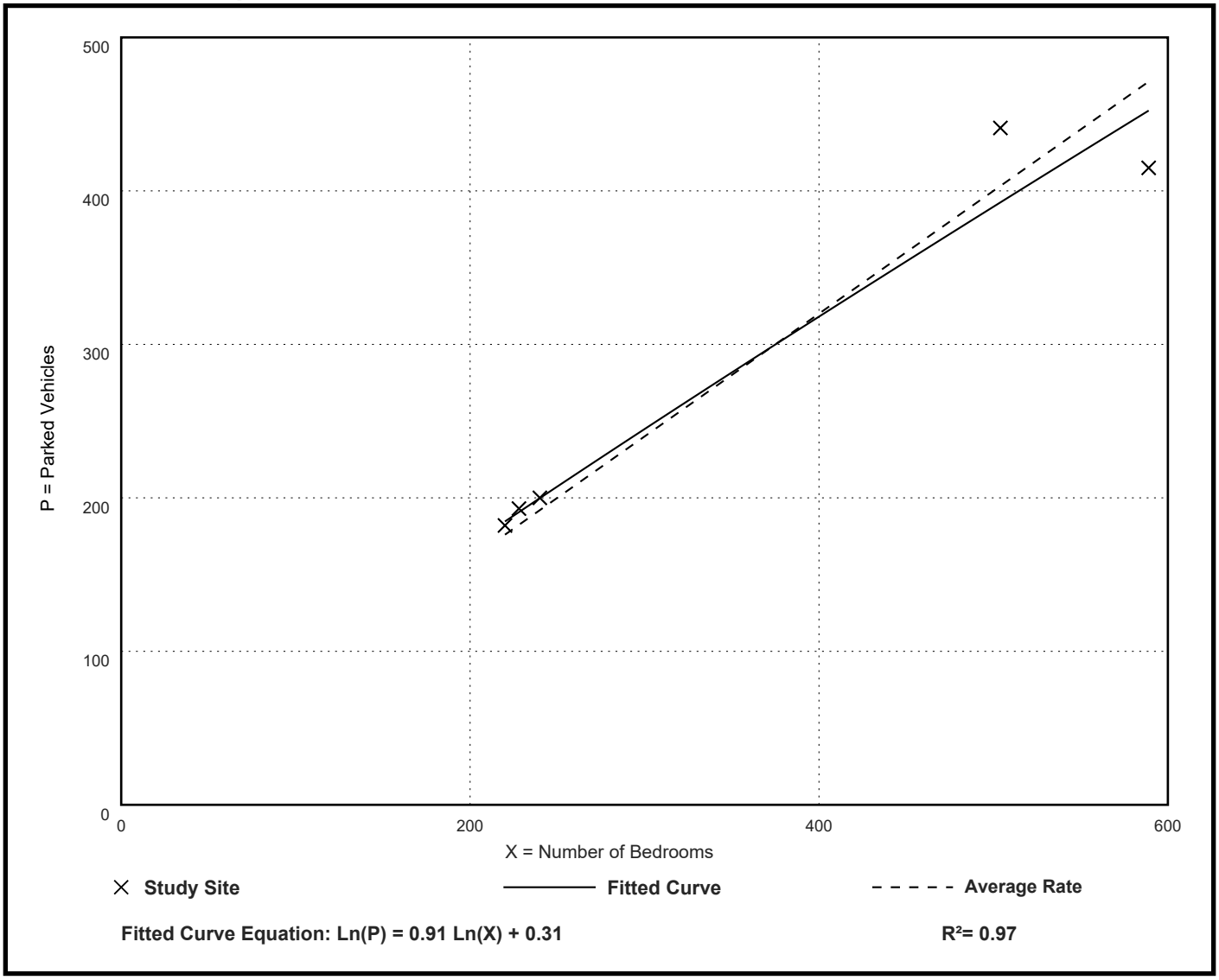
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

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)

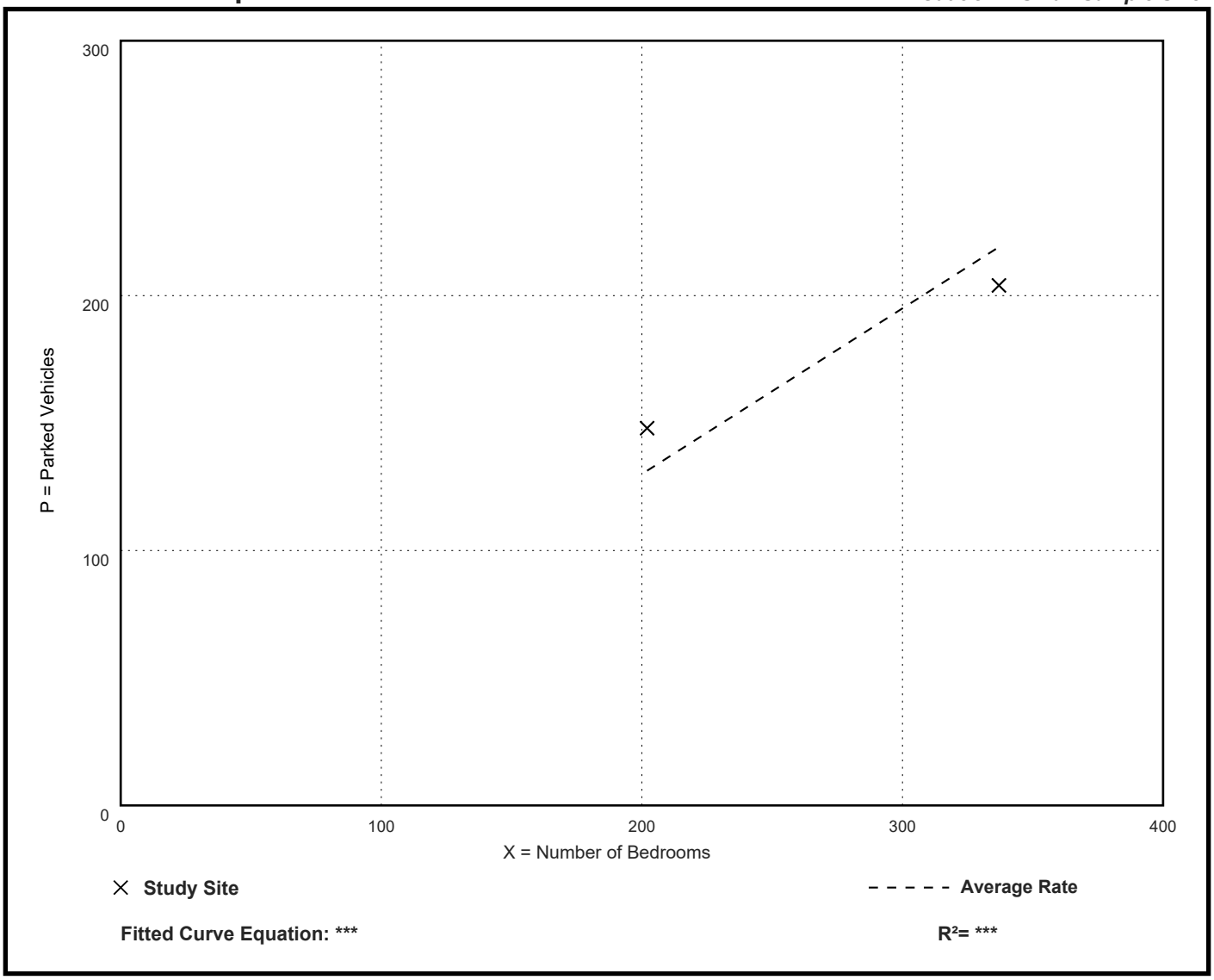
Peak Period Parking Demand vs: Bedrooms
On a: Sunday
Setting/Location: General Urban/Suburban
Number of Studies: 2
Avg. Num. of Bedrooms: 270

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



Fitted Curve Equation: ***

R^2= ***

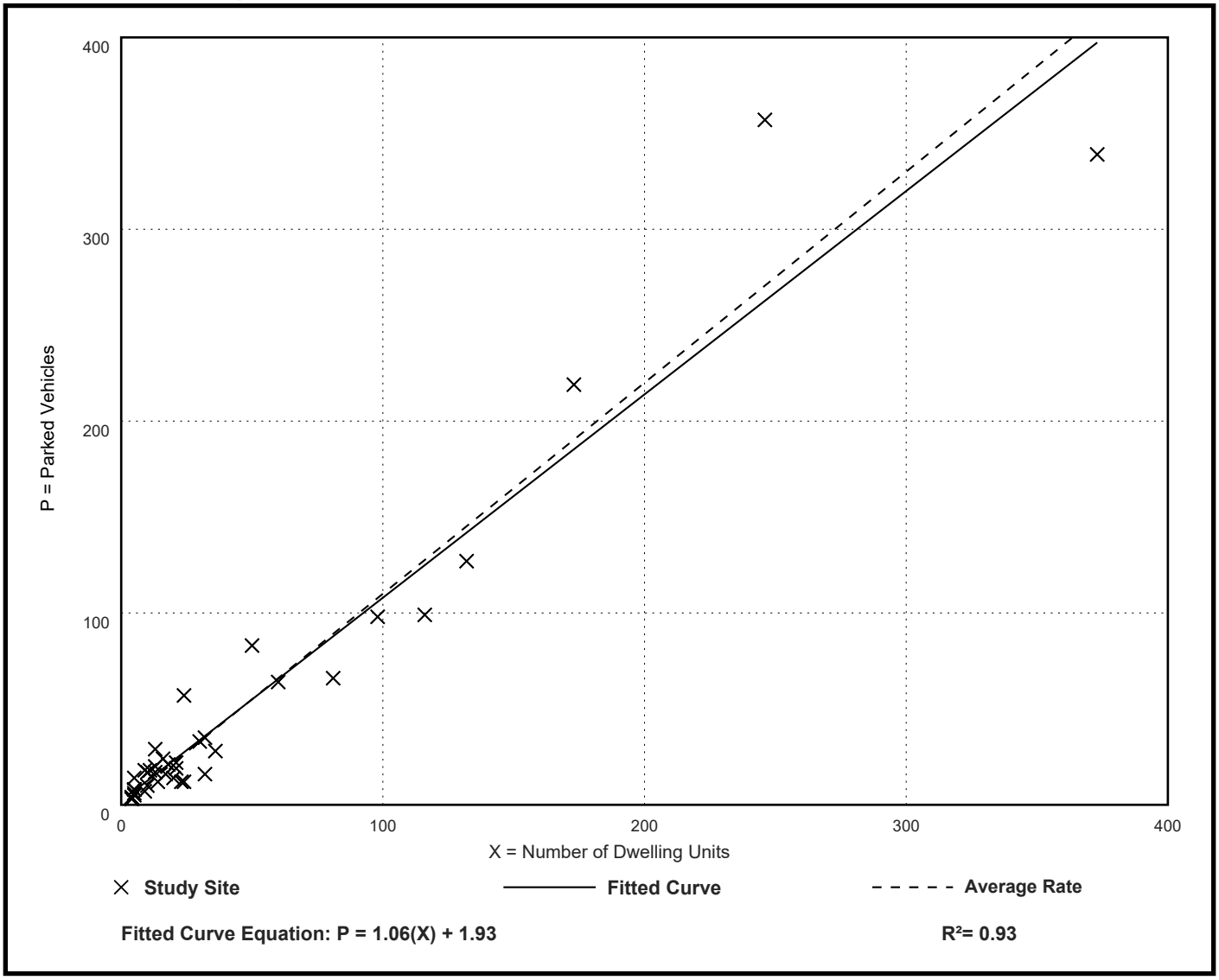
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

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

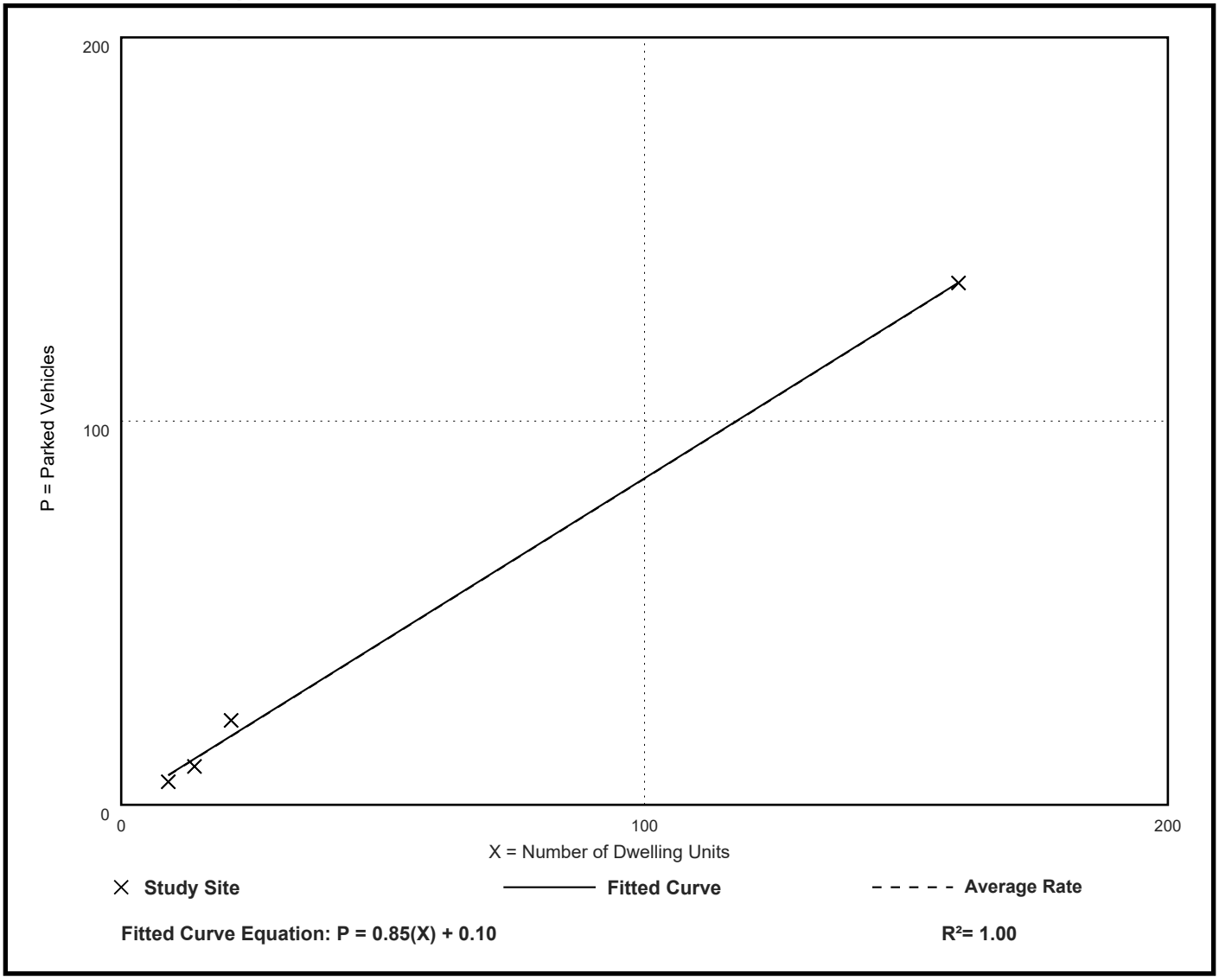
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

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

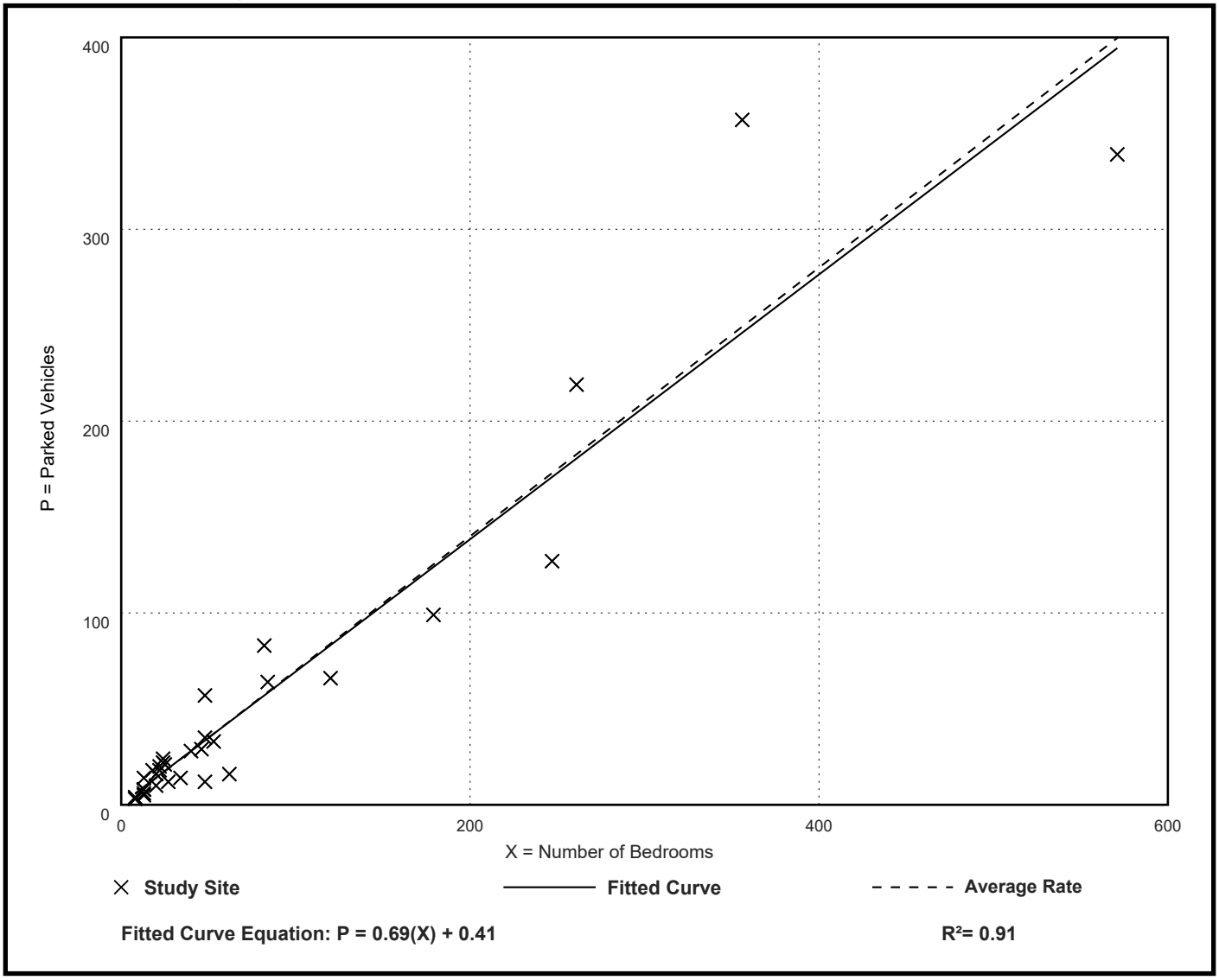
Multifamily Housing - 2+ BR (Low-Rise) Not Close to Rail Transit (220)

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



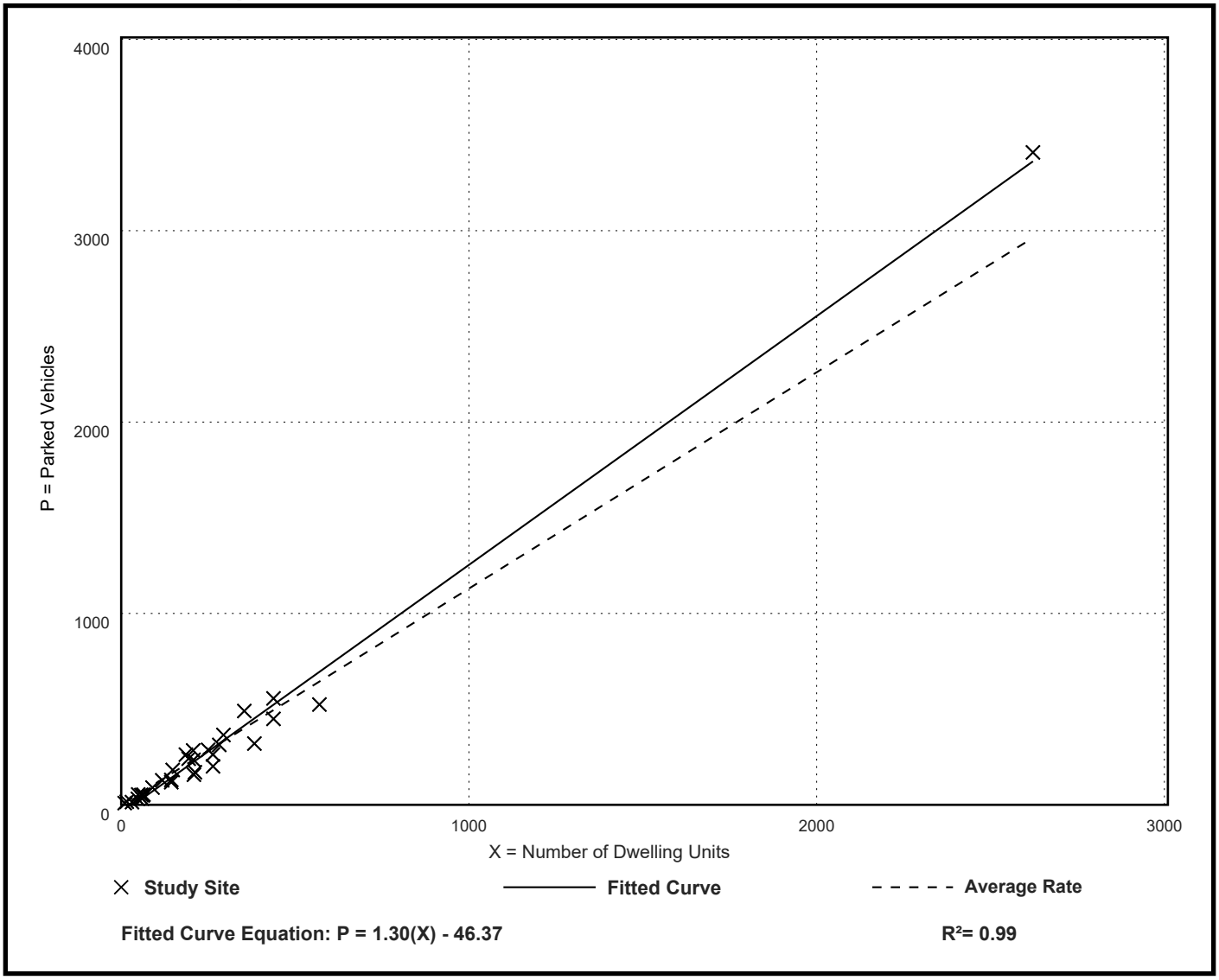
Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

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)

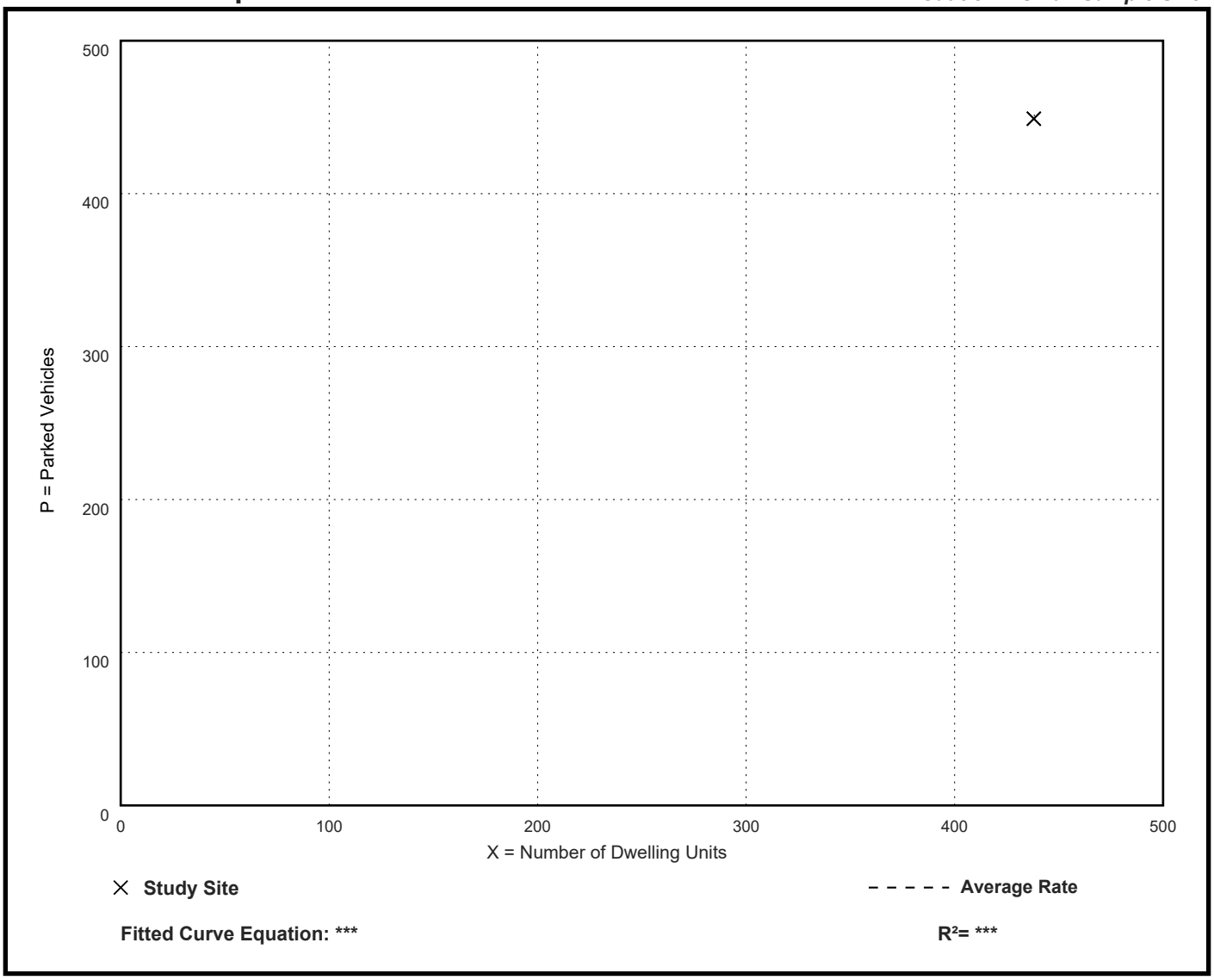
Peak Period Parking Demand vs: **Dwelling Units**
On a: **Saturday**
Setting/Location: **General Urban/Suburban**
Number of Studies: 1
Avg. Num. of Dwelling Units: 438

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)

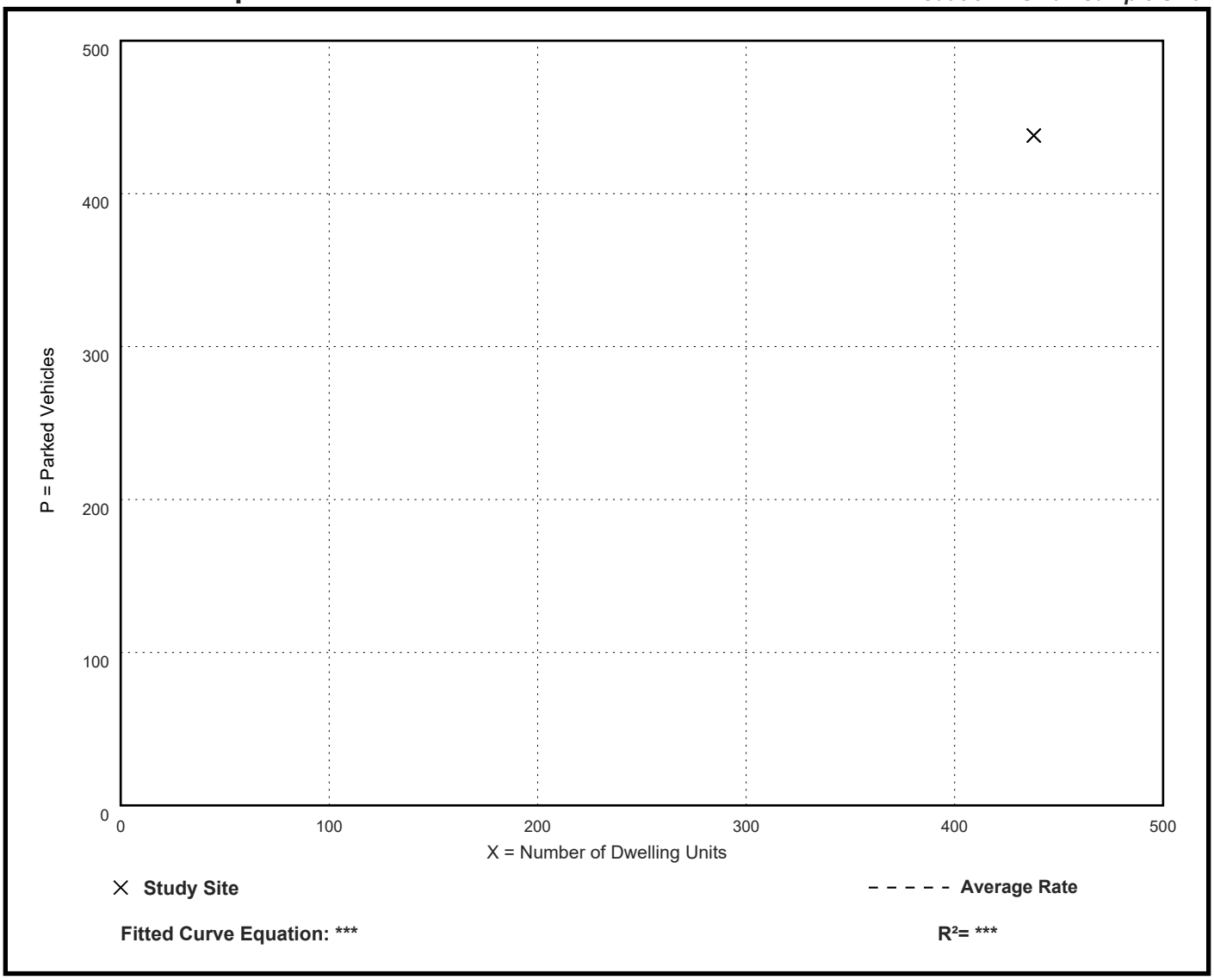
Peak Period Parking Demand vs: **Dwelling Units**
On a: **Sunday**
Setting/Location: **General Urban/Suburban**
Number of Studies: 1
Avg. Num. of Dwelling Units: 438

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



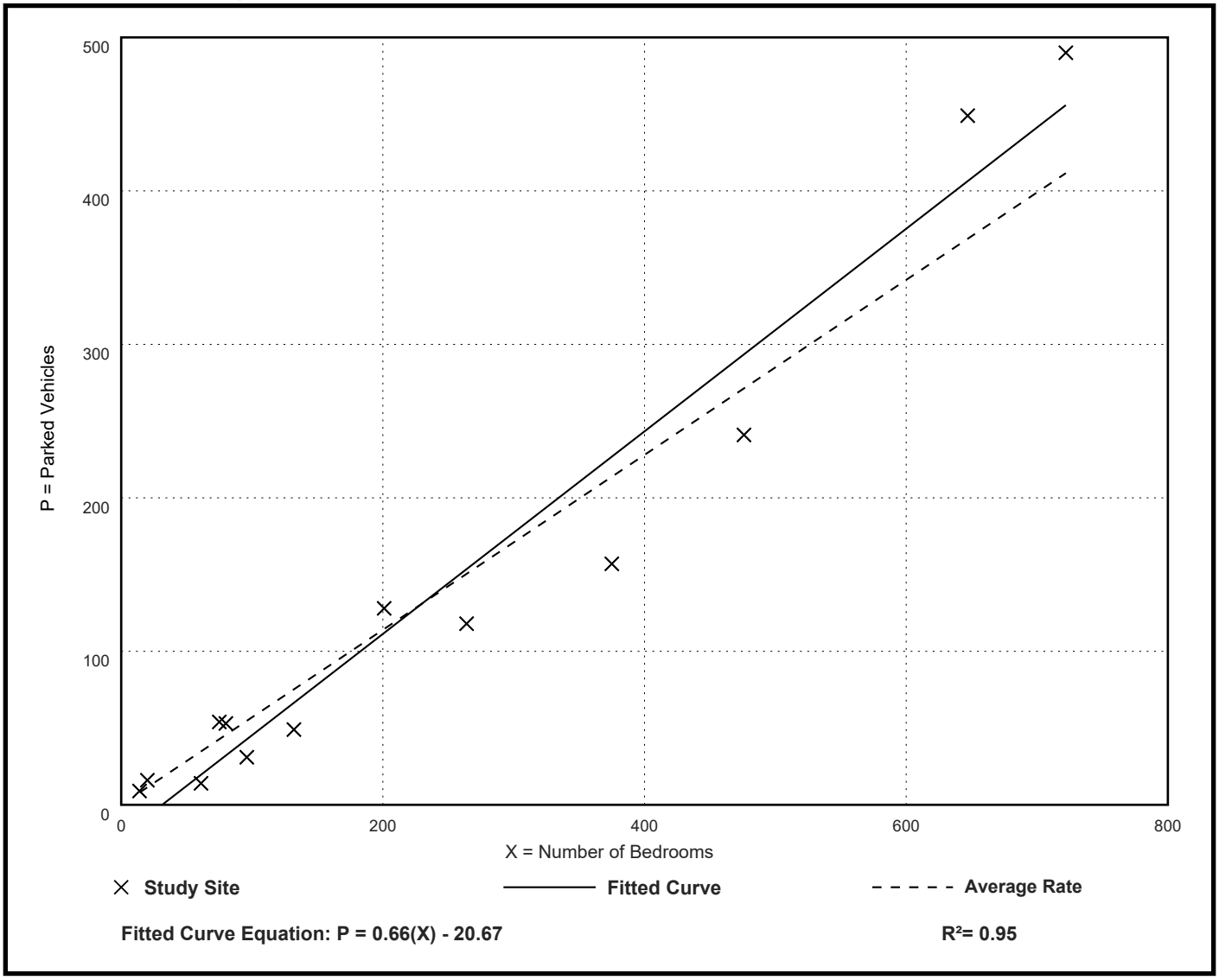
Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

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)

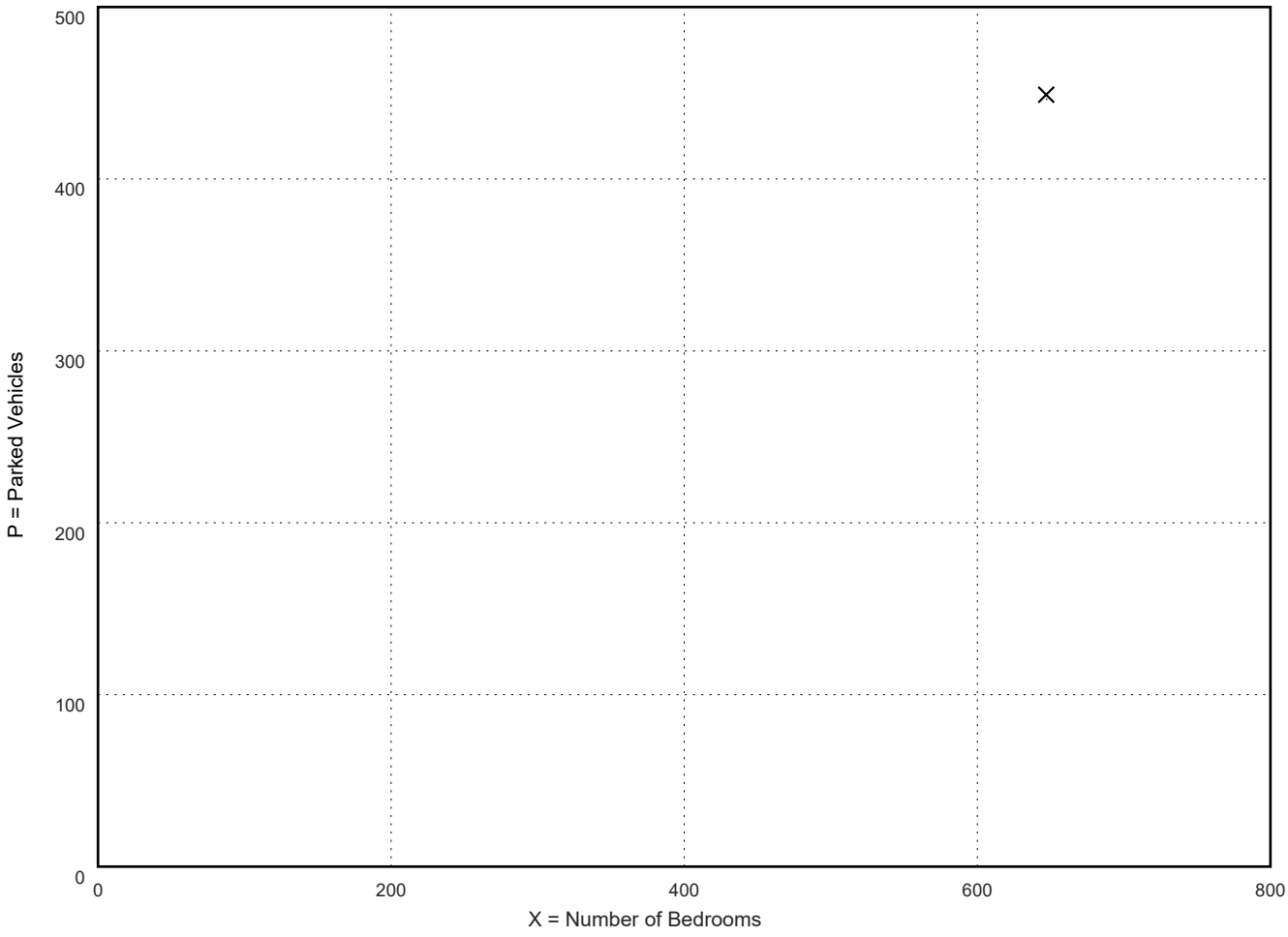
Peak Period Parking Demand vs: **Bedrooms**
On a: **Saturday**
Setting/Location: **General Urban/Suburban**
Number of Studies: 1
Avg. Num. of Bedrooms: 647

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)

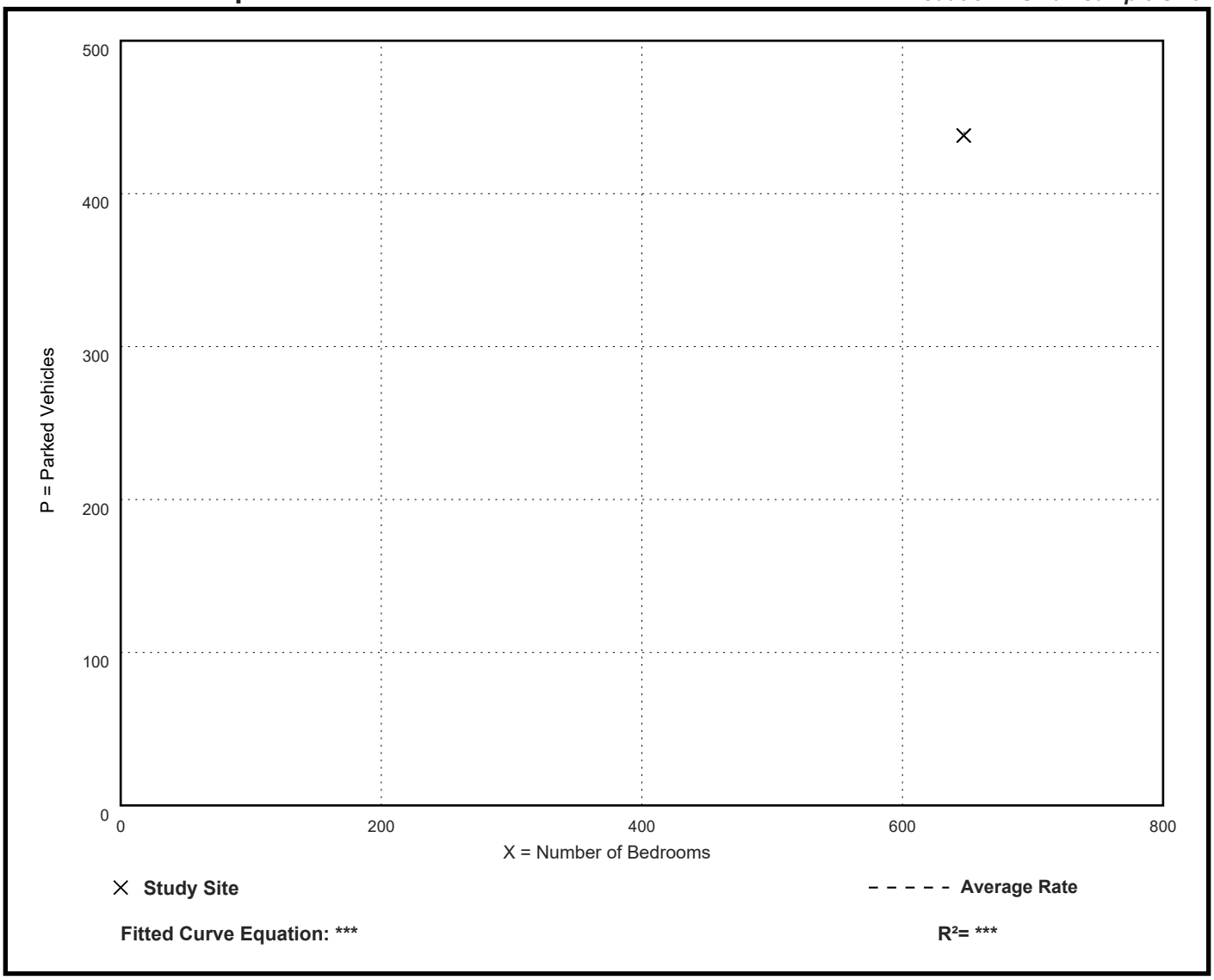
Peak Period Parking Demand vs: Bedrooms
On a: Sunday
Setting/Location: General Urban/Suburban
Number of Studies: 1
Avg. Num. of Bedrooms: 647

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



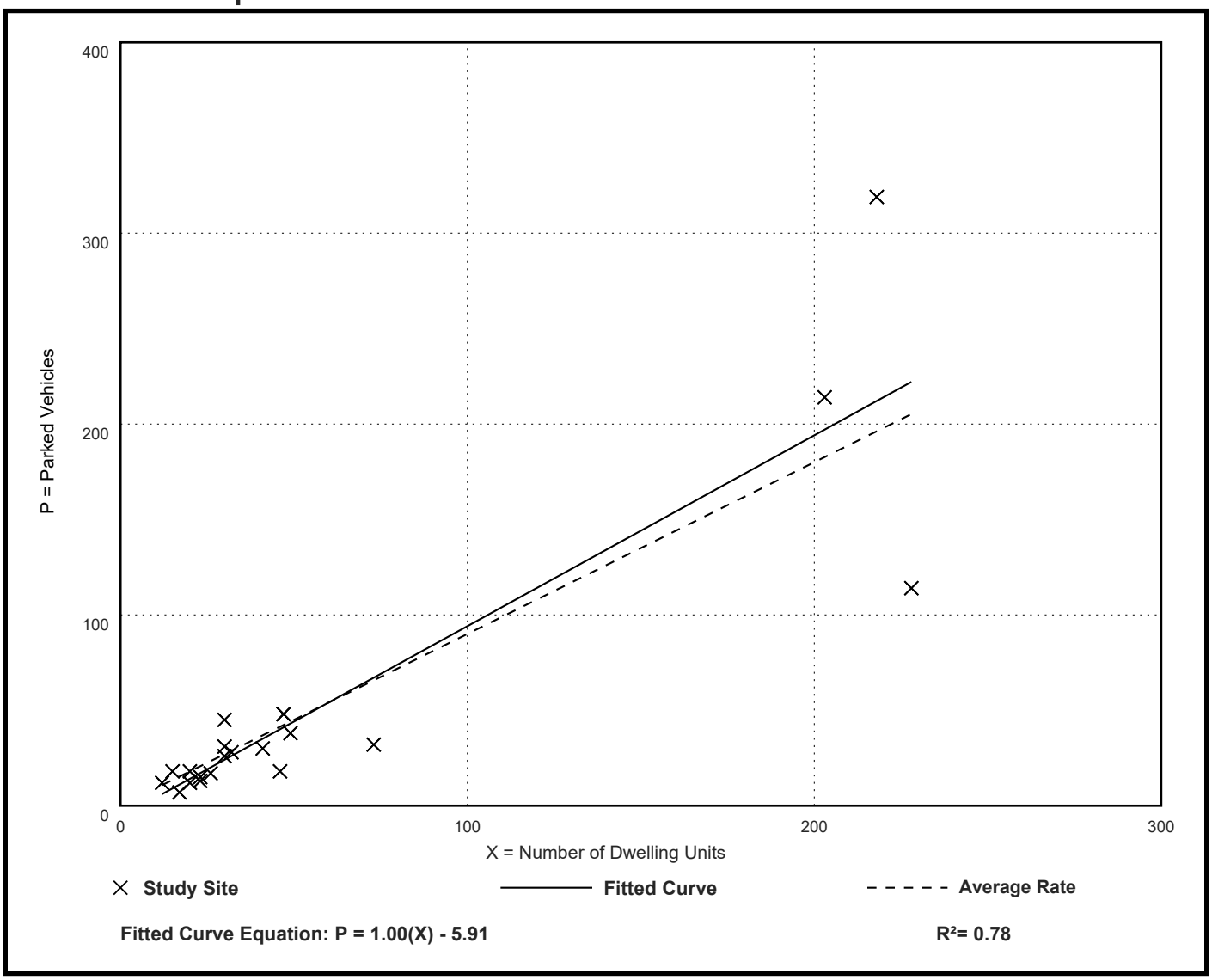
Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

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

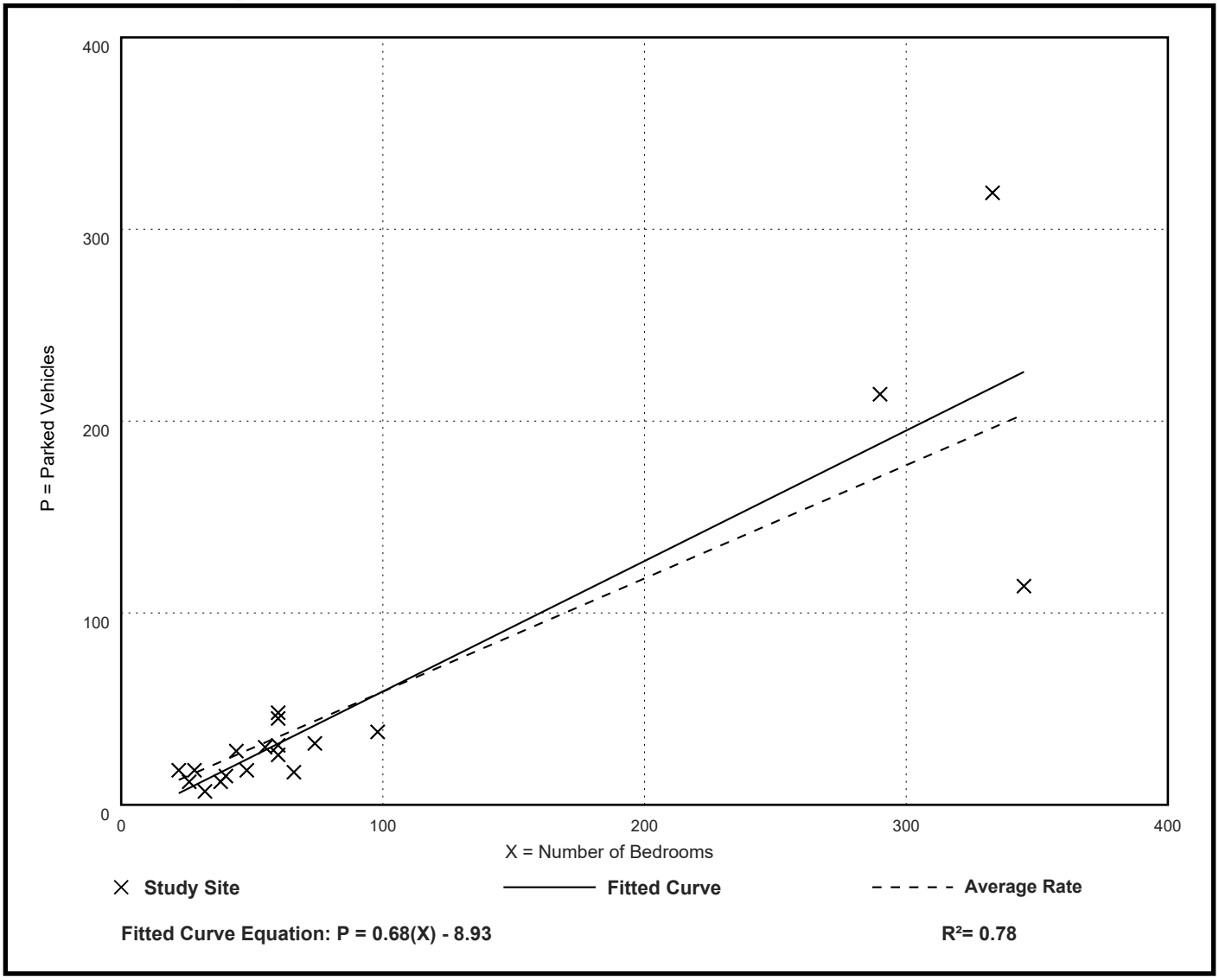
Multifamily Housing - 2+ BR (Low-Rise) Close to Rail Transit (220)

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

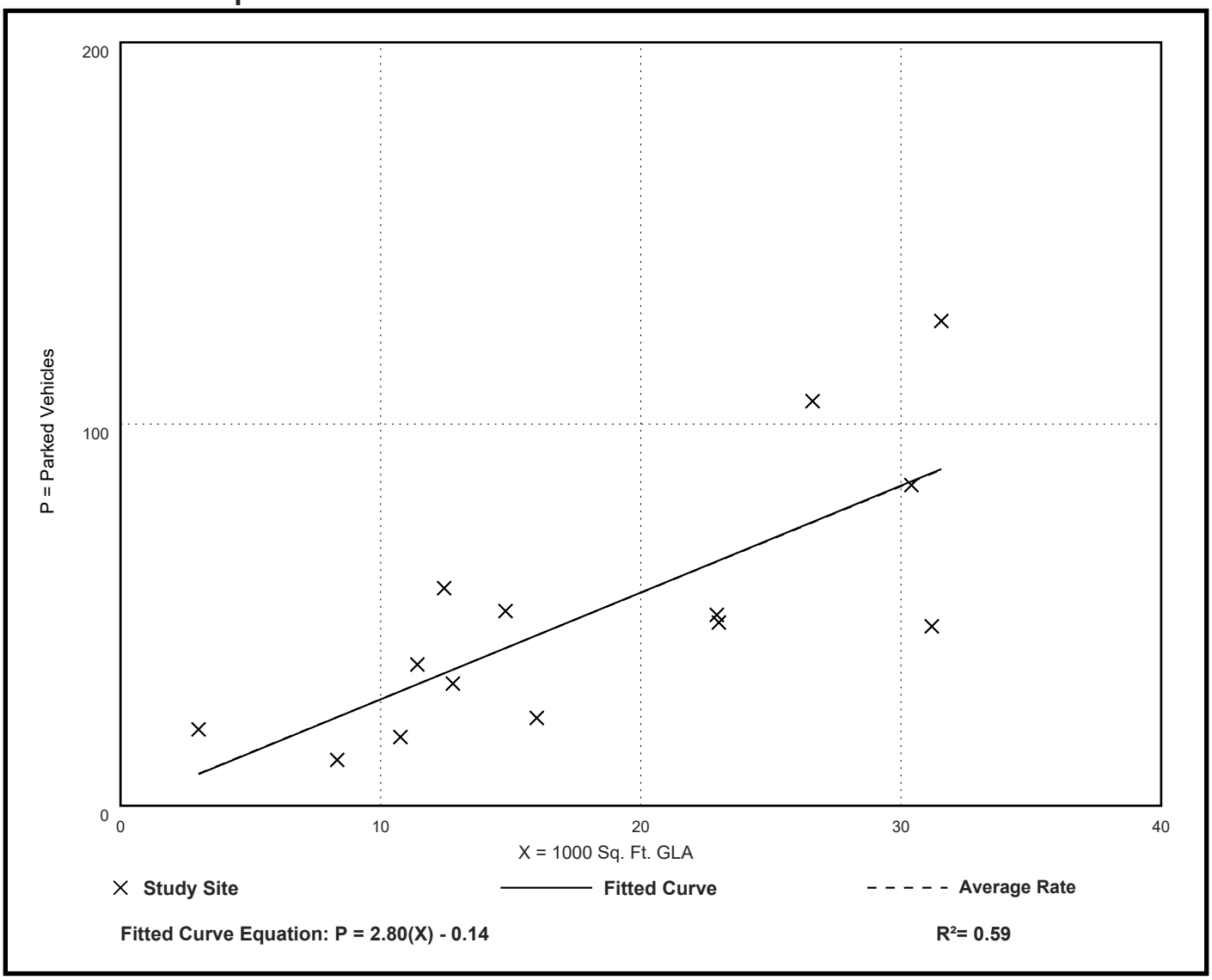
Strip Retail Plaza (< 40k)
(822)

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

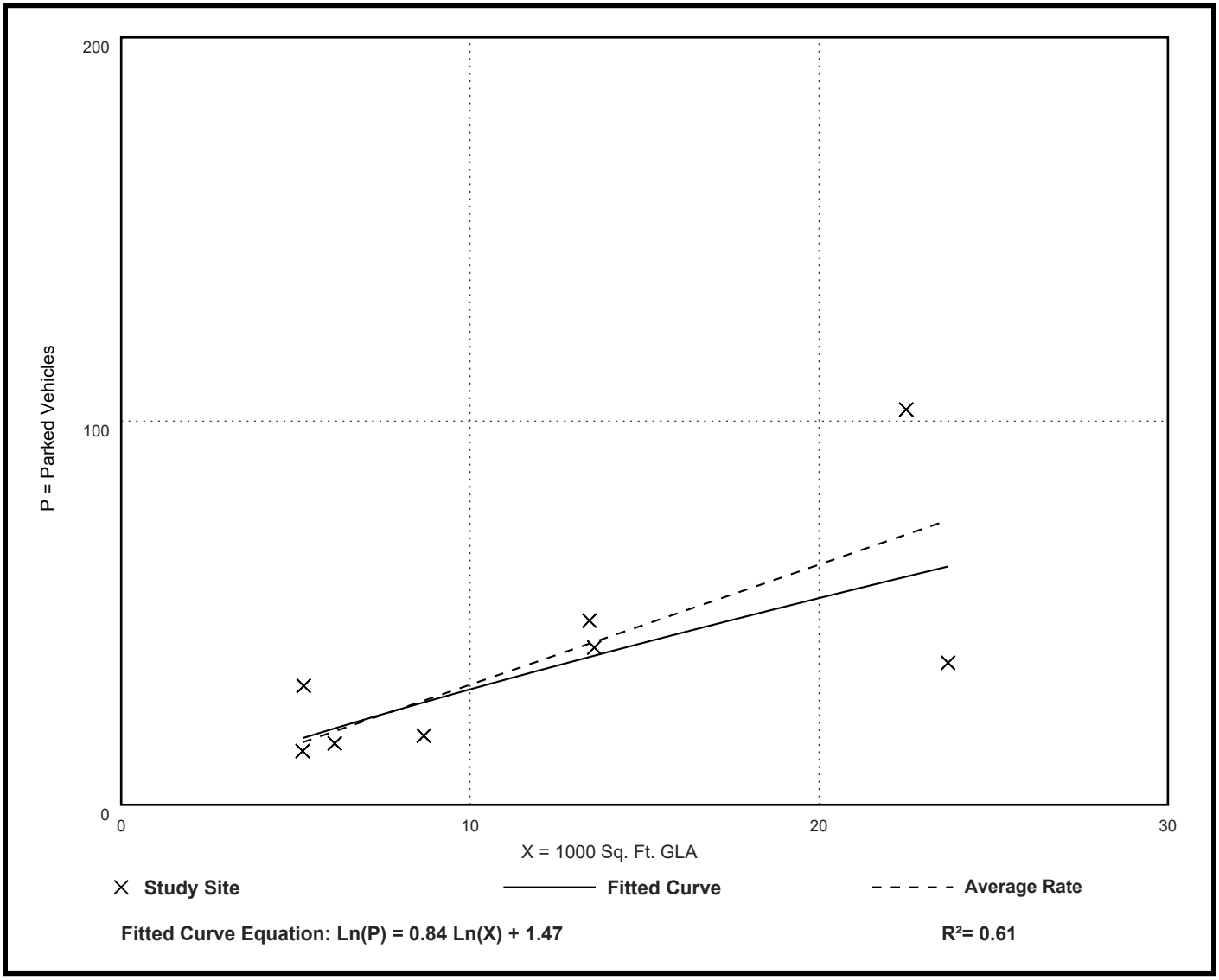
Strip Retail Plaza (< 40k)
(822)

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

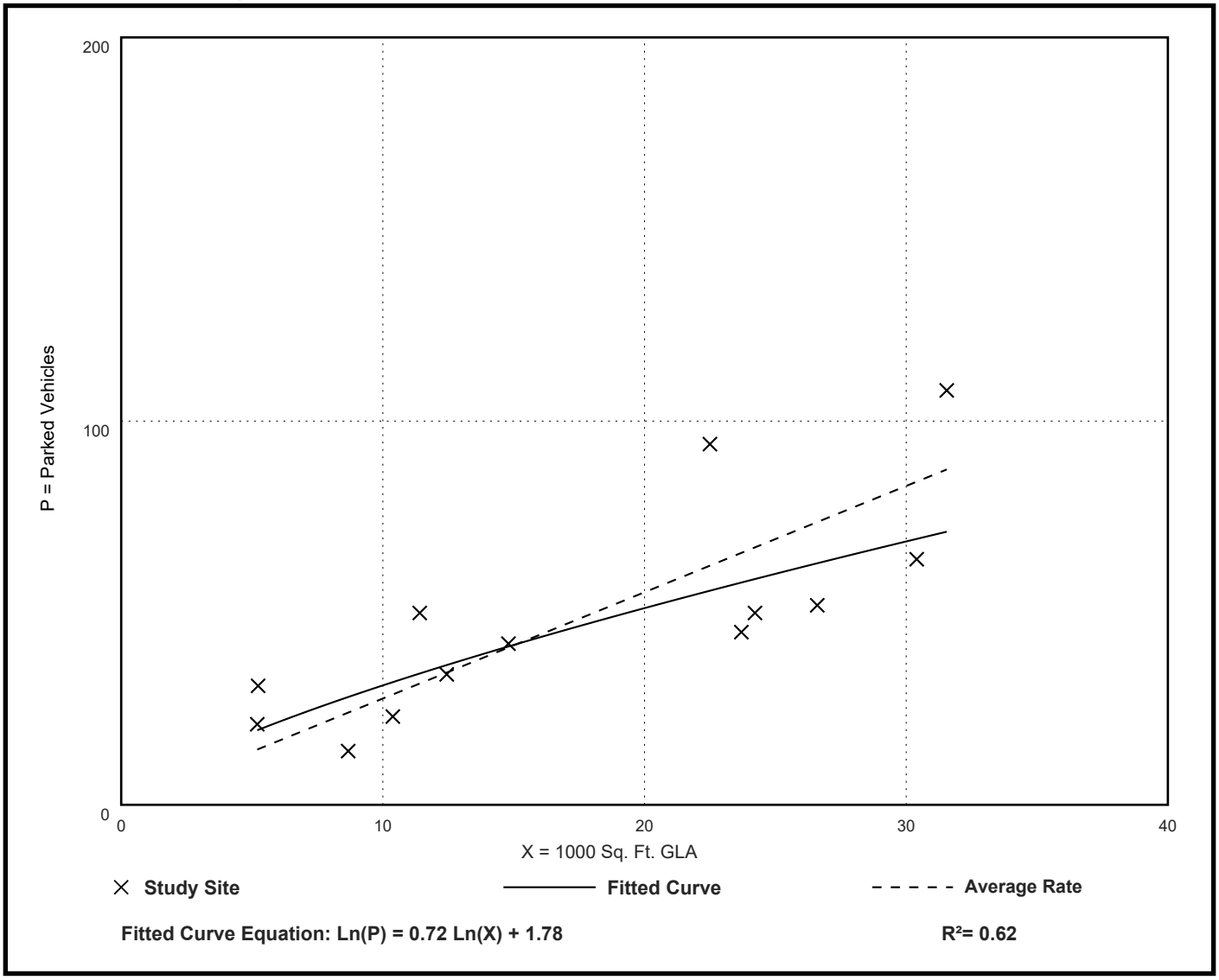
Strip Retail Plaza (< 40k)
(822)

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

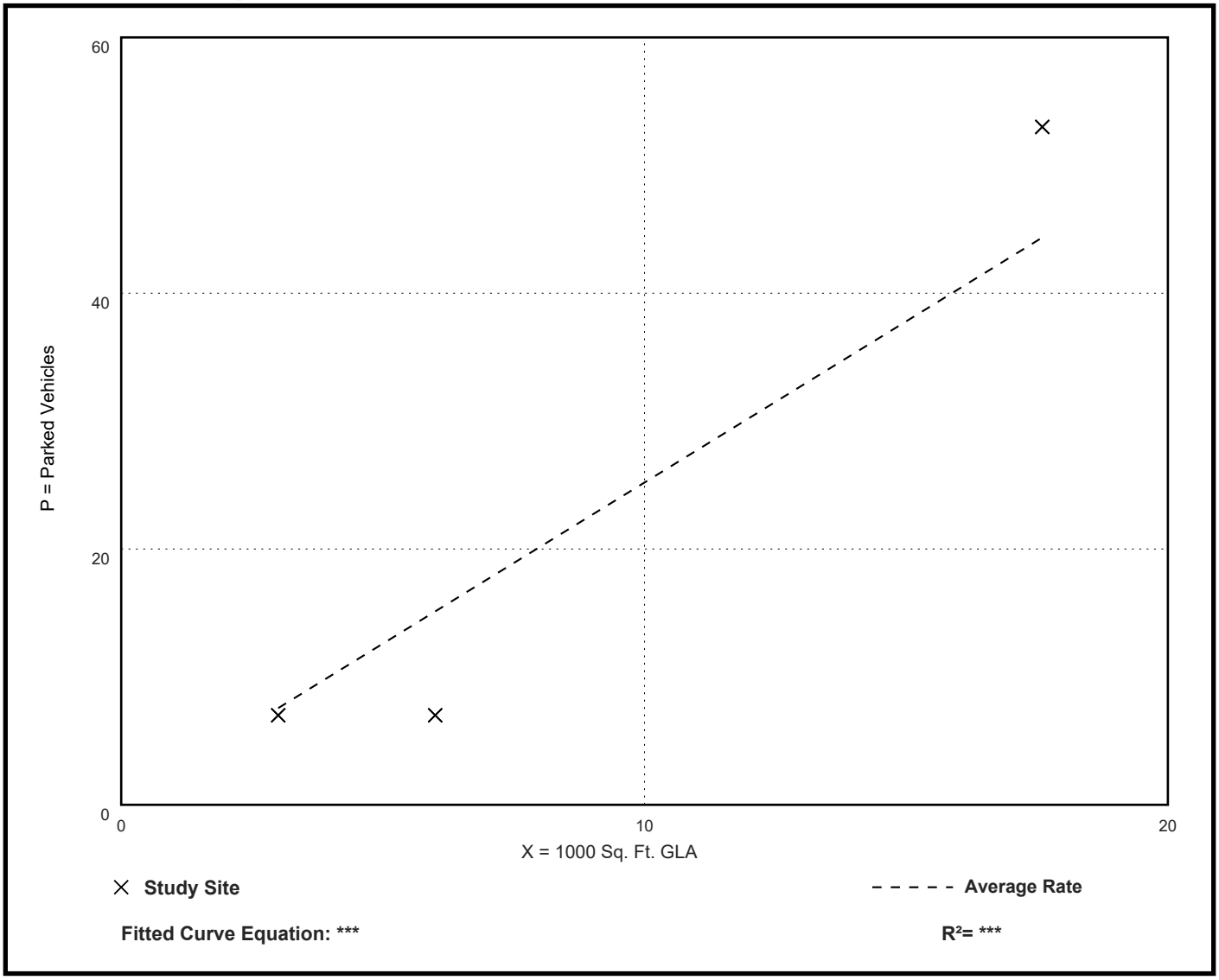
Strip Retail Plaza (< 40k)
(822)

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)

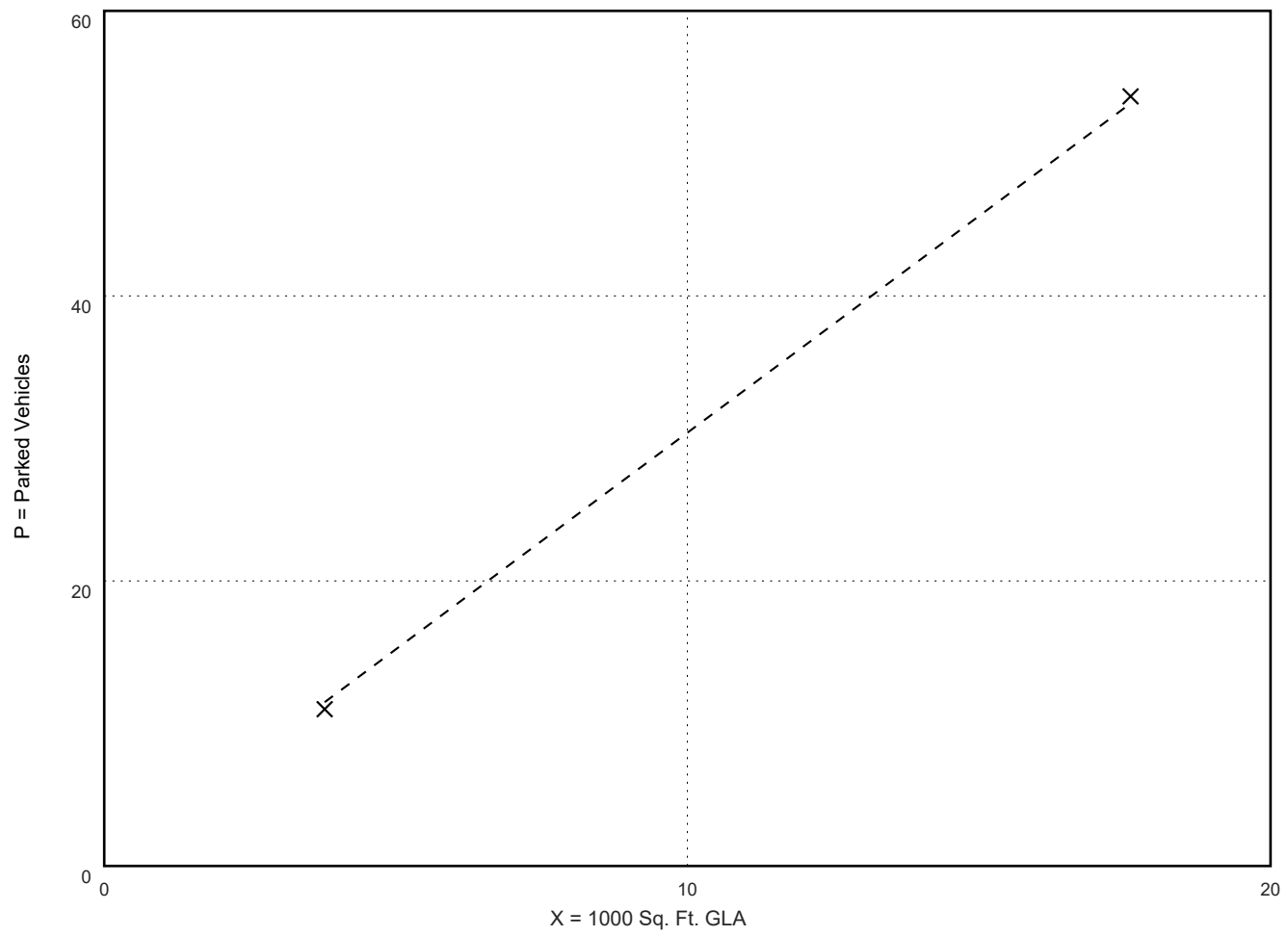
Peak Period Parking Demand vs: 1000 Sq. Ft. GLA
On a: Saturday
Setting/Location: Dense Multi-Use Urban
Number of Studies: 2
Avg. 1000 Sq. Ft. GLA: 11

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= *

PROPOSED LOCAL LAW NO. __ OF 2024

CITY COUNCIL
CITY OF BEACON

A LOCAL LAW TO AMEND PARKING REQUIREMENTS IN THE CITY OF BEACON

A LOCAL LAW to amend the Zoning Code concerning parking requirements.

BE IT ENACTED by the City Council of the City of Beacon as follows:

Section 1. Chapter 223 of the City Code of the City of Beacon, Article III, General Regulations, Section 223-26, entitled "Off-street parking, loading and vehicular access" is hereby amended as follows:

§ 223-26 **Off-street parking, loading and vehicular access.**

A. General.

~~(1) All structures and land uses hereafter erected, enlarged, created or extended shall be provided with the amount of off-street automobile parking space and loading and unloading space required by the terms of this section to meet the needs of persons making use of such structures or land.~~ A permit for the erection, replacement, reconstruction, extension or substantial alteration of a structure or the development of a land use shall not be issued unless off-street automobile parking ~~facilities~~ areas or structures and, where ~~required~~ appropriate loading and unloading spaces ~~shall have been laid out in plan in accordance~~are consistent with the ~~appropriate requirements for structures and uses as set forth~~provisions in this section~~, and such required parking and loading facilities shall be completed before a certificate of occupancy shall be issued. As used herein, "parking facilities" shall be construed to include loading and unloading spaces required by this section~~.

~~(2) In case of exceptional difficulty or unusual hardship to such properties arising out of the requirements of this section, the Board of Appeals may reduce the parking requirements but shall require such degree of compliance as it may deem reasonable for that part of the structure or use that is legally nonconforming and shall not waive any part of the requirement for that part of the structure or use that constitutes an enlargement or expansion and shall not permit reduction or elimination of whatever quantity of parking may already exist, unless it is in excess of requirements.~~

~~(3) Required off-street parking facilities which, after development, are later dedicated to and accepted by the City shall be deemed to continue to serve the uses or structures for which they were originally provided.~~

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~~B. Effect on existing uses.~~

~~(1) Structures and land uses in existence on April 20, 1964, or structures and uses for which building permits had been approved on or before said date, shall not be subject to the requirements set forth in this section, unless there shall occur an increased intensity of use, provided that any parking facilities now existing to serve such structures or uses shall not in the future be reduced, except where they exceed such requirement, in which case they may not be reduced below such requirement.~~

~~(2) Whenever a building or structure erected prior to or after April 20, 1964, or any land use shall undergo any increase in intensity of use in the number of dwelling units, floor area, seating capacity, number of employees or other unit of measurement specified hereinafter for required parking facilities, or from other causes, and further when said increase would result in a requirement for additional parking facilities through application of the Schedule of Off-Street Parking Requirements (Subsection F), additional parking facilities shall be provided accordingly, except that no building or structure erected prior to said date shall be required to provide parking facilities unless the aforesaid additional required facilities amount to a cumulative total increase of at least 25% over the existing use as of said date, in which case parking spaces shall be provided on the basis of the total units of measurements of the new use or of the alteration or expansion of the existing use.~~

~~C.~~B. Location, use, design, construction and maintenance.

(1) Location. ~~The~~Except as required elsewhere under the City Code, any approved off-street parking ~~facilities~~ area or structure ~~which are required by this section~~ shall be provided on the same lot or premises with such structure or land use; ~~except~~ unless ~~that~~ such off-street parking spaces ~~required~~ for structures or land uses on two or more adjoining lots may be provided in a single common facility on one or more of said lots, provided that an easement or deed restriction(s) ~~binding agreement~~, in a form approved by the Corporation Counsel, assuring the continued operation of said parking facility during the life of the structure or the land use the parking is designed to serve, is filed on the land records prior to approval of the plans for said parking facility.

~~(1)~~(2) In any residence district, no designated off-street parking ~~facility~~ area or structure shall be developed in any ~~required~~ front yard forward of the principal building, except as approved by the Building Inspector or Planning Board for an unusual lot configuration. Nor shall any residence district off-street parking area or structure be developed ~~or~~ in any ~~required~~ minimum side or rear yard setback adjacent to a street line or in any other side or rear yard within five feet of the lot line. However, off-street parking spaces shall be permitted in residential districts as indicated in § **223-17C**.

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~~(2)~~(3) Parking specifications.

(a) Each parking space provided in an unenclosed area shall be at least nine feet wide and at least 18 feet long, except that the Planning Board, in approving a plan under § **223-25**, may permit that portion of the total ~~required~~ parking which is specifically set aside for and limited to employee parking to have a width of at least 8 1/2 feet and a depth of at least 18 feet. This possible exception shall not be permitted in the CMS District.

(b) Each parking space which is bordered by walls or columns on two or more sides shall be not less than 10 feet wide nor less than 18 feet long. Enclosed or garaged parking areas shall not contain any columns, walls or other obstacles which would prevent or obstruct the use of any parking space.

(c) Except for one-family and two-family dwellings, ~~The~~ the maneuvering area needed to permit parked vehicles to enter and exit off-street parking spaces shall have a width of at least 24 feet, ~~except~~ unless ~~where~~ the Planning Board approves a lesser distance as adequate for areas with parallel or angled parking spaces.

(4) Landscaping. Except for parking spaces accessory to a one-family and two-family dwellings and accessory apartment dwelling units subject to approval by the Building Inspector, all off-street parking areas shall be landscaped with appropriate trees, shrubs and other plant materials and ground cover, as approved by the Planning Board based upon consideration of the adequacy of the proposed landscaping to assure the establishment of a safe, convenient and attractive parking facility with a minimum amount of maintenance, including plant care, snowplowing and the removal of leaves and other debris.

~~(3)~~(a) At least one tree with a minimum caliper of three inches at a height of four feet above ground level shall be provided within such parking area for each ~~10~~ 8 parking spaces.

~~(a)~~(b) Wherever possible, planting islands, at least eight feet in width, shall be provided to guide vehicle movement and to separate opposing rows of parking spaces so as to provide adequate space for plant growth, pedestrian circulation and vehicle overhang. Such planting islands and the landscaping within them shall be designed and arranged in such a way as to provide vertical definition to major traffic circulation aisles, entrances and exits, to channel internal traffic flow and prevent indiscriminate diagonal movement of vehicles and to provide relief from the visual monotony and shadeless expanse of a large parking area.

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~~(b)~~(c) The Planning Board may require curbing to facilitate surface drainage and prevent vehicles from overlapping sidewalks and damaging landscaping materials.

(d) No obstruction to driver vision shall be erected or maintained on any lot within the triangle formed by the street line of such lot, the outer edge of the access driveway to the parking area and a line drawn between points along such street line and access drive ~~30~~ 25 feet distant from their point of intersection.

~~(c)~~(e) Such property owner shall have an obligation to maintain and replace any landscaping which dies or becomes unsightly.

~~(4)~~(5) Grades, drainage, paving and marking. All proposed and ~~required~~ approved parking ~~facilities~~areas and structures, regardless of size, shall be graded, surfaced, drained and maintained throughout the duration of their use so as to comply with the New York State Stormwater Management Design Manual, as amended from time to time, and/or Chapter **190**, Stormwater Management and Erosion and Sediment Control, of this Code, or other acceptable stormwater management practice(s), as deemed suitable to the City Engineer to the extent necessary to avoid nuisances of dust, erosion or excessive water flow across public ways or adjacent lands. The drainage analysis for said parking ~~facilities~~ areas or structures shall include pre- and post-development conditions as well as remediation and/or mitigation of stormwater runoff. The maximum slope within a parking area shall not exceed 5%. In RD Districts and in any multifamily or nonresidential developments, the Planning Board shall require the provision of suitable markings to indicate individual parking spaces, maneuvering area, entrances and exits. Except for one-family or two-family dwellings, the Planning Board shall require green stormwater infrastructure for the development of parking spaces, unless the Applicant establishes to the Planning Board's satisfaction that the underlying soils do not allow natural drainage. Such green stormwater infrastructure is subject to § 190-9.

~~(5)~~(6) Traffic circulation. In order to encourage safe and convenient traffic circulation, the Planning Board may require the interconnection of parking areas via access drives within and between adjacent lots. The Board shall require ~~written assurance and/or deed restrictions~~easements, satisfactory to the Corporation Counsel, binding the owner and his heirs and assignees to permit and maintain such internal access and circulation and inter-use of parking ~~facilities~~areas or structures.

~~(6)~~(7) Two or more uses on same lot. Where two or more different uses occur on a single lot, ~~the total amount of parking facilities to be provided shall be the sum of the requirements of each individual use on the lot, except that~~ the Planning Board may approve the joint use of parking space by two or more establishments on the same lot or on contiguous lots, the total capacity of which is less than the sum of

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the spaces ~~required~~ needed for each, provided that said Board finds that the capacity to be provided will substantially meet the intent of this article by reason of variation in the probable time of maximum use by patrons or employees at such establishments and provided that such approval of such joint use shall be automatically terminated upon a change of use at any such establishment.

~~(7)~~(8) Designed residence and multifamily residence districts.

(a) In RD Districts, in order that some of the ~~required~~ parking spaces may be convenient for use by visitors as well as by occupants, 2/3 of the ~~required~~ car spaces for a residential building shall, whenever possible, be directly accessible to a main entrance to that building and within 100 feet of that entrance.

(b) In RD Districts, off-street parking lots shall be located behind, underneath, or to the side of the building, whenever possible. Any parking to the side of the building shall be screened from street views by a low wall, hedge, fence, and/or other landscaping and, whenever possible, it shall be located at least 40 feet from any property line that fronts on a street.

~~(8)~~(9) Off-street parking for private passenger vehicles may be allowed by a special permit from the Planning Board on a vacant lot in a residential district which has a shared parcel line for at least 20 feet with a commercial or industrial district, provided that the off-street parking shall be on a portion of the lot within 200 feet of the commercial or industrial district and that the use shall not include fee-based parking for railroad commuters.

~~D.~~C. Alternatives to providing parking spaces.

(1) Conveyance of land. Where, because of limitations of size, dimensions or topography of a lot, an applicant for a building permit in a business district finds it impractical to provide all or a portion of the off-street parking spaces required by ~~Subsection F hereinthe~~ Planning Board, in connection with a proposed building or addition, ~~he~~ the applicant may grant and convey to the City of Beacon, and the City Council, at its discretion, may accept, appropriately located and developed land for commercial parking as a permitted use equivalent, provided that said land is permanently dedicated to the City.

~~(1)~~(2) Waiver of improvement. Except within the Central Main Street District, and notwithstanding any other provision of this chapter, the City Council or Planning Board, in reviewing plans submitted in accordance with the provisions of this section or § **223-18** or **223-25**, may waive the initial improvement of up to 50% of the ~~required~~ off-street parking spaces, provided that all of the ~~required~~ spaces are shown on the proposed plan and further provided that suitable agreements,

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satisfactory to the City Council or Planning Board, are obtained assuring the City that the property owner(s) will be responsible for the construction of such waived spaces, or any portion thereof, within six months of the date such spaces may be deemed necessary by the City Council or Planning Board.

D. Schedule of Off-Street Parking ~~Requirements~~Standards. ~~Off-street parking spaces shall be provided as follows, except that the Board of Appeals may modify these provisions as a condition of the issuance of a special permit according to the provisions of § **223-19**.~~

(1) In order to promote walkability and other transportation alternatives and to avoid excessive automobile traffic and unnecessarily large paved parking lots, parking maximums have been established for all uses. N~~n~~o minimum number of off-street parking spaces are ~~required,~~required within the CMS, L, WD, and T districts due to the proximity of these districts to municipal parking areas, public transportation, and pedestrian-oriented streetscapes. ~~except for one-family and two-family dwellings as well as accessory apartment dwelling units which shall require a minimum of one off-street parking space per dwelling unit.~~

(2) The Planning Board shall determine the appropriate number of on-site parking spaces as part of application review and based on the context of the property, including but not limited to, as applicable, the size of the parcel, proposed uses, existing buildings on the parcel, especially if they are designated as historic, availability of public and street parking in the area, ~~walkable~~ access to public transit, a parking study submitted by the applicant, shared parking arrangements, land-banking authorized under § **223-26C(2)**, compliance with the Americans with Disabilities Act (ADA) and any state requirements for accessible parking, and input from any public hearing.

(3) Any professional parking study requested by the Planning Board and reviewed by the City's consultant shall be based primarily on specific site-related information, a comparable analysis of similar uses and properties in the area or region, and an examination of demand reduction strategies, including such elements as promotion of walking, bicycle parking or storage facilities, alternative mobility options, transit access opportunities, car-share rentals, and ride-sharing or carpooling services.

(4) The following table gives guidance to the Planning Board on the minimum and maximum ~~parking allowed~~parking allowed.; ~~notwithstanding~~Where only maximums are identified, the Planning Board may approve fewer spaces:

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Schedule of Off-Street Parking Standards

Building Use	CMS, L, WD, T		R1, RD, LI, HI, WP, FCD, GB	
	Min	Max	Min	Max
Residential (Including accessory apartment)	=	1 space per dwelling unit	1 space per dwelling unit	3 spaces per dwelling unit
Lodging	=	0.75 space per guest room	0.5 space per guest room	1.5 space per guest room
Commercial (Retail / Office / Service / Food / Auto-Oriented/ Social and Community)	=	3 spaces Per 1000 SF GFA	3 spaces Per 1000 SF GFA	5 spaces Per 1000 SF GFA
Health Care and Educational		4 spaces per 1000 SF GFA	1 space per 1000 SF GFA	4 spaces per 1000 SF GFA
Industrial (Industrial or Assembly)	=	=	0.25 space per 1,000 SF GFA	2.5 spaces per 1,000 SF GFA
Other Uses		Off-street parking requirements for types of which do not fall within the categories listed above shall be determined by the Planning Board or the Building Inspector upon consideration of relevant factors dictating the parking needs of each such use		

NOTES:
* The calculation of Gross Floor Area ("GFA") shall exclude utility space
* Up to 30% of the provided parking may be designated for compact automobiles at the discretion of and in accordance with standards as determined by the Planning Board

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Use	Minimum Maximum Off-Street Parking
1- and 2-family dwelling	2 spaces 3 spaces for each dwelling unit
Multifamily dwelling and/or apartment or artist live/work space	1 space for each dwelling unit, plus 1/4 space for each bedroom, plus 1/2 space for each live/work space containing retail area
Professional home office or home occupation permitted in a residential district	2 spaces in addition to spaces required for the residential use, except that there shall be a maximum 4 spaces for each medical or dental practitioner in addition to spaces required for the residential use
Bed-and-breakfast establishment	1 space for each guest sleeping room, plus 2 spaces for the dwelling unit, plus 1 space for each nonresident employee
Hotel or inn	Subject to § **223-14.1C** 1 for each hotel guest room, plus 1 for each employee on site at any one time
Place of worship, theater, auditorium, athletic field or other place of assembly	1 space for each 4 seats or pew spaces or, in places or, in places without seats, 1 space for each 100 square feet of floor space used for public assembly
Nursery school or day-care center	1 per employee plus 1 per classroom
Primary or secondary school	1 per employee plus 1 per 5 students in the 11th grade or above, or 1 per 4 assembly seats, whichever is greater

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Use	Minimum Maximum Off-Street Parking
Dance, art, tutorial, martial arts or similar instructional school	1 space for each 150 square feet of gross floor space
Hospital, nursing home, convalescent home or home for the aged	1 space for each 3 resident persons, plus space for each employee, including medical, nursing and service staff employed at the same time when the building is operating at full capacity
Golf and country club	1 space for each 2 memberships
Bowling alley or other place of indoor commercial recreation or public amusement	5 spaces for each bowling lane; all others, 1 space for each 4 persons of maximum occupancy or 1 space for each 200 square feet of gross floor area, whichever is greater
Retail or service business, including auction gallery	1 space for each 200 250 square feet of gross floor area, excluding utility areas
Restaurant or coffee house	1 space for each 3 patron seats or 1 space for each 150 200 square feet of gross floor area, excluding kitchen and storage areas, whichever is greater
Office for business or professional use (other than accessory to residential use)	1 space for each 200 300 square feet of gross floor area, excluding utility areas
Banking office	1 space for each 200 300 square feet of gross floor area, excluding utility areas

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Use	Minimum Maximum Off-Street Parking
Funeral home or undertaking establishment	10 spaces per establishment, plus 1 space per employee
Motor vehicle sales and service	1 space per employee, plus 1 space per 150 square feet of gross floor space
Animal care facility	1 space per employee, plus 1 space per 300 square feet of gross floor space
Car washing establishment	Subject to § **223-21F** 1 space per each two persons working at the same time at full capacity or 1 space for each 400 square feet of gross floor area, whichever is greater
Research or development laboratory	1 space per employee, but not less than or 1 space per 600 square feet of gross floor space
Manufacturing or industrial use	1 space per 2 employees but not less than or 1 space per 400 square feet of gross floor space
Wholesale, warehouse storage, utility or other similar commercial use	1 space per employee but not less than or 1 space per 1,000 square feet of gross floor space
Self-storage facility	1 space per 10,000 square feet of gross floor space, plus one space per employee

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Use	Minimum Maximum Off-Street Parking
Senior housing	2 spaces for each 3 dwelling units
Museums located within walking distance (3,000 feet) of entrance to train station	1 parking space per 3,000 feet of gross floor space
Artist studio	1 space for each 500 square feet of gross floor space
Art gallery/exhibit space	1 space for each 250 square feet of gross floor area
Bar or brew pub	1 space for each 3 patron seats or 1 space for each 250 square feet of gross floor area, excluding kitchen and storage areas, whichever is greater
Microbrewery or microdistillery	1 space for each employee on the largest shift, plus 1 space for each 3-patron sitting or standing spaces in any tasting room or other visitor facility open to the general public
Museum	1 space for each 300 500 square feet of gross floor area
Other uses not listed	Off-street parking requirements for types of uses which do not fall within the categories listed above shall be determined by the Planning Board or the Building Inspector, as the case may be, upon consideration of relevant factors entering into the parking needs of each such use

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~~Use~~ ~~Minimum~~ ~~Maximum~~ ~~Off-Street Parking~~

~~(1) Notwithstanding § **223-26F** above, with respect to lots which, on the effective date of this section, are located wholly or partially within 2,500 feet of the train station platform, the City Council shall have the authority to limit the amount of parking to be provided for multifamily and nonresidential development projects on said lots having a parking requirement in accordance with § **223-26F** of 25 spaces or more, in the interest of appropriately and reasonably minimizing the environmental impact of the project's vehicular traffic accessing the train station. In such cases, the City Council shall ensure that convenient pedestrian access is provided by the project, or is otherwise available between the project and the train station. Where a substantial change in elevation exists between the project and the train station, the City Council may require the project to provide, if deemed feasible by the Council, an elevator, escalator, stairs and/or other similar pedestrian conveyance or access for such purpose.~~

E. Operation and maintenance of off-street parking ~~facilities~~areas and structures. ~~Required~~ Approved off-street parking ~~facilities~~ areas or structures shall be maintained as long as the use of the structure exists which the ~~facilities~~ parking areas or structures are designed to serve. ~~Required~~ Designated parking areas developed for specific structures and uses shall be reserved at all times to those persons who are employed at or make use of such structures and land uses, except when dedicated to and accepted by the City as public parking areas.

F. Off-street loading requirements. Off-street loading and unloading facilities ~~shall be located on the same site with the use to be served, except as provided in Subsection **C(1)**, and~~ shall be provided as follows:

...

(2) ~~Required number~~ Number of spaces. The Planning Board shall determine the location (on-site or off-site) and appropriate number of on-site loading spaces as part of site plan approval and based on the context of the property, including but not limited to the size of the parcel, proposed uses, existing buildings on the parcel, a professional study prepared by the applicant, and input from any public hearing.

~~(a) For retail and/or service business establishments: a minimum of one space for the first 7,500 square feet or major portion thereof, plus one space for~~

~~each additional 10,000 square feet of gross floor area or major portion thereof, except that no berths shall be required for buildings with a gross floor area of less than 5,000 square feet.~~

~~(b) For office establishments: a minimum of one space for the first 20,000 square feet of gross floor area or major portion thereof, plus one space for each additional 40,000 square feet of gross floor area or major portion thereof, except that no berths are required for buildings of less than 10,000 square feet of gross floor area.~~

~~(c) For research establishments: a minimum of one space for the first 12,000 square feet of gross floor area of building or major portion thereof, plus one space for each additional 20,000 square feet of gross floor area or major portion thereof.~~

~~(d) For wholesale business, industry, storage, warehouses and other commercial establishments: a minimum of one space for each establishment, plus one space for each 10,000 square feet of gross floor area or major portion thereof.~~

~~(e) For nursing homes: a minimum of one space for each establishment.~~

~~(f) For museums, a minimum of one space for each establishment.~~

~~(g) Other uses which do not fall within the categories listed above shall be determined by the City Council and adopted as an amendment to this section.~~

G. Driveways. For reasons of traffic and pedestrian safety, both on and off street, as well as to provide for possible future road widening or other improvements, all new driveways and sidewalk crossings entering onto any street shall comply with all requirements of Chapter **100**, Driveways, and shall be subject to the approval of the Highway Superintendent, except where such are part of a use subject to special permit or site development plan approval, in accordance with §§ **223-18** and **223-25**, in which case they shall be subject to approval by the Planning Board and/or City Council.

Section 2. Chapter 223 of the City Code of the City of Beacon, Article III, General Regulations, Section 223-14.1, entitled "Hotels," Subsection C is hereby amended as follows:

§ 223-14.1 **Hotels.**

…

C. ~~Minimum~~ Oo~~f~~ff-street parking shall be in accordance with § 223-26.

~~(1) For hotel rooms: One parking space shall be provided for each hotel guest room.~~

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~~(2) For restaurants, bars and other public rooms, and for recreation facilities and other permitted uses, other than lobbies: The number of parking spaces required in accordance with § 223-26 of this chapter shall be provided.~~

~~(3) For employees: One parking space shall be provided for each employee for the maximum number of employees working at the hotel at any one time.~~

…

Section 3. Chapter 223 of the City Code of the City of Beacon, Article III, General Regulations, Section 223-21, entitled "Car washes," Subsection F(1) is hereby amended as follows:

§ 223-21 **Car washes.**

…

F. Off-street parking ~~requirements~~ shall be provided in accordance with § 223-26~~as follows:~~

~~(1) One space per each two persons employed at the same time when the building is operating at full capacity or one space for each 400 square feet of gross floor area, whichever is greater.~~Off-street parking shall be in accordance with § 223-26.

…

Section 4. Chapter 223 of the City Code of the City of Beacon, Article III, General Regulations, Section 223-21, entitled "Nursing homes," Subsection D(1) is hereby amended as follows:

§ 223-21 **Nursing homes.**

…

~~D.~~(1) Off-street parking shall be provided in accordance with § 223-26.~~.~~

~~(1) One off-street parking space shall be required for each three resident persons and one for each person employed at the same time when the building is operating at full capacity, including staff doctors.~~Off-street parking shall be in accordance with § 223-26.

…

Section 5. Chapter 223 of the City Code of the City of Beacon, Article III, General Regulations, Section 223-25, entitled "Site development plan approval," Subsection A, is hereby amended as follows:

§ 223-25 **Site development plan approval.**

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A. Approval required. No building permit shall be issued, other than for interior alterations, and no change in type of use, as categorized in § 223-26DF hereof, shall be permitted, other than one-family dwellings, except in conformity with an approved site development plan, and no certificate of occupancy for such structure or use shall be issued until all the requirements for such approval and any conditions attached thereto have been met. The continued validity of any certificate of occupancy shall be subject to continued conformance with such approved plan and conditions. Revisions of such plans shall be subject to the same approval procedure.

Section 6. Chapter 223 of the City Code of the City of Beacon, Article IVA, Waterfront Zones, Section 223-41.3, entitled "Waterfront Park (WP) Zone," Subsection J(11) is hereby amended as follows:

§ 223-41.3 **Waterfront Park (WP) Zone.**

…

J. Waterfront ~~park~~ Park standards. Because the Waterfront Park area is a central element in the City's waterfront, it is essential that any proposed site plans meet the following standards:

…

(11) Off-street parking and loading~~:~~ shall be provided in accordance with § 223-26

…

~~(b) Parking requirementsshall be in accordance with § 223-26.~~

~~[1] Marina: 1/2 space per slip or dry rack storage unit.~~

~~[2] Museums, educational facilities, auditorium, athletic field or other place of assembly: One space for each four seats or pew spaces or, in places without seats, one space for each 100 square feet of floor space used for public assembly.~~

~~(c) With respect to any building, structure or use for which the required number of parking spaces is not specifically set forth in the above schedule, the Planning Board in the course of site plan review shall determine the number of off-street parking spaces required, which number shall bear a reasonable relation to the minimum off-street parking requirements for specified uses as set forth in the above schedule.~~

~~(d) Up to 30% of the required parking may be designated for compact automobiles at the discretion of and in accordance with standards as determined by the Planning Board~~.

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(e) Alternative methods of meeting off-street parking requirements.

[1] General

[a] The waterfront area will include a mix of land uses on the waterfront, wherein the cumulative parking demand is less than the sum of the peak demand values for each individual land use. This makes it possible to share parking without conflict and to avoid a large surplus of parking spaces in the waterfront area.

[b] Also, because of the special nature and value of land along the waterfront, and because of the anticipated mix of land uses, alternative parking solutions, such as valet parking, off-site parking, etc., may, in certain situations, also be appropriate.

[2] Planning Board authority. The Planning Board shall be authorized to find that any portion of the off-street parking requirements of a Waterfront Park project have been satisfied when the applicant establishes to the Board's satisfaction that alternative parking solutions are appropriate and will provide adequate parking for the project. If an applicant wishes to use alternative parking methods, he must submit a complete analysis to the Board for review. This analysis must include estimates of peak parking demands for different land uses for different hours of the day and days of the week. It should also define strategies intended to incorporate alternative parking methods and the advantages of such strategies.

[3] Alternative parking methods. Alternative parking methods include the following, and such other methods as the Planning Board deems appropriate, or any combination thereof:

[a] Parking shared among various use elements within a Waterfront Park project.

[b] Parking shared among various use elements within a Waterfront Park project.

[c] Valet parking.

(f) Off-street loading. Off-street loading shall be provided as the Planning Board may find appropriate.

Section 7. Chapter 223 of the City Code of the City of Beacon, Article IVA, Waterfront Zones, Section 223-41.4, entitled "Waterfront Development (WD) Zone," Subsection J(11) is hereby amended as follows:

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§ 223-41.4 **Waterfront Development (WD) Zone.**

…

J. Development standards for Waterfront Development District. It is essential that development in this district meet the following development standards:

…

(12) Off-street parking and loading shall be provided in accordance with § 223-26 ~~(11)~~.

~~…~~

~~(b) Parking requirementsshall be in accordance with § 223-26, except that the maximum parking standards for the following uses in the WD Zone are:.~~

~~[1] Multifamily dwelling: one space per unit.~~

~~[2] Retail or service business: one space for each 333 square feet of gross floor, excluding basement storage utility areas.~~

~~[3] Restaurant: one space for each three patron seats or one space for each 300 square feet of gross floor area, excluding kitchen and storage areas, whichever is greater.~~

~~[4] Office for business or professional use: one space for each 400 square feet of gross floor area.~~

~~[5] Hotel: 0.75 space for each hotel guest room.~~

~~(c) With respect to any building, structure or use for which the required number of parking spaces is not specifically set forth in the above schedule, the Planning Board, in the course of site plan review, shall determine the number of off-street parking spaces required, which number shall bear a reasonable relation to the minimum off-street parking requirements for specified uses as set forth in the above schedule.~~

~~(d) Up to 30% of the required parking may be designated for compact automobiles at the discretion of and in accordance with standards as determined by the Planning Board.~~

~~(e) Alternative methods of meeting off-street parking requirements.~~

~~[1] General.~~

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[a] The WD Zone encourages a mix of land uses on the waterfront wherein the cumulative parking demand is less than the sum of the peak demand values for each individual land use. This makes it possible to share parking without conflict and to avoid a large surplus of parking spaces in the waterfront area.

[b] Also, because of the special nature and value of land along the waterfront, and because of the anticipated mix of land uses, alternative parking solutions, such as valet parking, off-site parking, etc., may, in certain situations, also be appropriate.

[2] Planning Board authority. The Planning Board shall be authorized to reduce parking requirements for a given use, based upon a finding that any portion of the off-street parking requirements of a waterfront development have been satisfied when the applicant establishes to the Board's satisfaction that alternative parking solutions are appropriate and will provide adequate parking for the WD site. If an applicant wishes to use alternative parking methods, he must submit a complete analysis to the Board for review. This analysis must include estimates of peak parking demands for different land uses for different hours of the day and days of the week. It should also define strategies intended to incorporate alternative parking methods and the advantages of such strategies.

[3] Alternative parking methods. Alternative parking methods include the following, and such other methods as the Planning Board deems appropriate, or any combination thereof:

[a] Parking shared among various use elements within the waterfront development. The Planning Board's acceptance of such an alternative parking method shall be based on a professional parking study of the proposed use and the surrounding area that 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.

[b] Provision of parking off-site, in private or municipal lots, where appropriate arrangements for such parking can be made.

[c] Valet parking.

(f) Off-street loading. Off-street loading shall be provided as the Planning Board may find appropriate.

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Section 8. Chapter 223 of the City Code of the City of Beacon, Article IVC, Fishkill Creek Development (FCD) Zone, Section 223-41.13, entitled "Uses; plan review; design standards," Subsection I(11) is hereby amended as follows:

§ 223-41.13 **Uses; plan review; design standards.**

…

I. Fishkill Creek development design standards.

…

(11) Off-street parking and loading.

…

(b) ~~Parking requirements.~~ The FCD District parking ~~requirements~~ shall be in accordance with § 223-26 of this chapter~~, except that the requirements in § 223-26F shall be both the minimum and maximum requirements for a FCD project~~.

~~(c) With respect to any building, structure or use for which the required number of parking spaces is not specifically set forth in § 223-26F of this chapter, the Planning Board, in the course of site plan review, shall determine the number of off-street parking spaces required, which number shall bear a reasonable relation to the minimum off-street parking requirements for specified uses as set forth in the above schedule.~~

~~(d) Up to 20% of the required parking may be designated for compact automobiles at the discretion of and in accordance with standards as determined by the Planning Board.~~

~~(e) Off-street loading shall be provided as the Planning Board may find appropriate.~~

Section 9. Chapter 223 of the City Code of the City of Beacon, Article IVD, Central Main Street (CMS) District, Section 223-41.18, entitled "Regulations," Subsections A and G are hereby amended as follows:

§ 223-41.18 **Regulations.**

A. Uses by right. The uses listed below are permitted by right in the CMS District, in the manner and under the conditions specified below. Unless otherwise indicated in this § 223-41.18, all such uses require site development plan review and approval. Site development 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~~ maxiumum

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number of off-street parking spaces required for the new use in § 223-41.18G(2) is not more than 25% greater than the ~~requirement~~ maximum standard for the existing use in § 223-26D~~F~~ herein.

...

G. Parking location and quantity.

...

(2) ~~The minimum quantity of required on-site parking spaces shall be as follows~~Parking shall be in accordance with § 223-26~~, except that the maximum parking standards for the following uses in the CMS District are as follows~~:

~~(a) Residential: one space per unit.~~

~~(b) Office and nonretail commercial: two spaces per 1,000 square feet of floor area.~~

~~(c) Retail commercial and personal services: two spaces per 1,000 square feet of floor area.~~

~~(d) Other uses: as determined to be appropriate by the Planning Board in the course of site plan review, or in the case of a new use where site plan review is not required under § 223-41.18A, as determined by the Building Inspector in consultation with the City Planner.~~

(3) The ~~requirements~~ maximum standards in ~~Subsection G(2) above or~~ § 223-26 may be modified by the Planning Board, in its discretion, based upon information submitted by the applicant or otherwise made available in the public record, demonstrating one or more of the following:

(a) That the projected operational characteristics of the proposed use require a different 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 within the CMS or PB District.

(c) That the applicant has provided sufficient bicycle parking to reduce anticipated vehicular travel demand.

(d) That there is sufficient public parking available within 800 feet of the site and within the CMS or PB District to meet foreseeable parking needs of the proposed use and surrounding uses for the duration of the proposed use.

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(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 within the CMS or PB 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.

(g) The application involves a designated historic property as defined in Chapter 134 of the City Code.

~~(4) For lots of 8,000 square feet or less, where the provision of on-site parking is infeasible, the Planning Board may waive all parking requirements, provided that the total floor area of the building is no greater than 5,000 square feet.~~

~~(5) Section 223-26B of this chapter shall apply in the CMS District.~~

Section 10. Chapter 223 of the City Code of the City of Beacon, Article IVE, Linkage District (L), Section 223-41.21, entitled "Regulations," Subsections A and F are hereby amended as follows:

§ 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~~ maximum 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~~ maximum standard for the existing use in § 223-26D~~F~~ 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:

…

F. Parking location and quantity.

…

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(2) ~~The minimum quantity of required on-site parking spaces shall be as follows~~Parking shall be in accordance with § 223-26~~, except that the maximum parking standards for the following uses in the L District are as follows~~:

~~(a) Residential: one space per unit.~~

~~(b) Office and general commercial: 2.5 spaces per 1,000 square feet of floor area.~~

~~(c) Retail commercial and personal services: three spaces per 1,000 square feet of floor area.~~

~~(d) Other uses: as determined to be appropriate by the Planning Board in the course of site plan review, or in the case of a new use where site plan review is not required under § 223-41.21A, as determined by the Building Inspector in consultation with the City Planner~~as listed in § 223-26 of this chapter.

(3) The ~~quantity of required on-site parking~~maximum standards in ~~Subsection F(2) above or~~ § 223-26 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:

~~(e)~~(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.

~~(f)~~(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.

~~(g)~~(c) That the applicant has provided sufficient bicycle parking to reduce anticipated vehicular travel demand, as supported by a professional parking study.

~~(h)~~(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.

~~(i)~~(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.

~~(j)~~(f) That a professional parking study of the proposed use and the surrounding area demonstrates that a different amount of parking would be

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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.~~

~~(5) Section 223-26B of this chapter shall not apply in the L District.~~

Section 11. Chapter 223 of the City Code of the City of Beacon, Article IVF, Senior Affordable Housing Overlay (SAHO) District, Section 223-41.22, entitled "Specific requirements and regulations," Subsection E(1) is hereby amended as follows:

§ 223-41.22 **Specific requirements and regulations.**

…

E. Supplementary site regulations.

(1) Parking~~ ratio~~. ~~Unless modified by the City Council in its zoning designation or special permit, parking spaces shall be provided at the ratio of 1.2 spaces per dwelling unit. The 0.2 fractional space shall be accumulated for staff and visitors~~Off-street parking shall be in accordance with § 223-26.

…

Section 12. Chapter 223 of the City Code of the City of Beacon, Article VI, Definitions and Word Usage, Section 223-63, entitled "Definitions," is hereby amended as follows:

…

LOADING SPACE
Any off-street space available for the loading or unloading of goods and complying with the ~~requirements~~ provisions specified in § 223-26 of this chapter.

…

PARKING SPACE
An off-street space available for the parking of one motor vehicle on a transient basis and complying with the ~~requirements~~ provisions specified in § 223-26 of this chapter.

…

Section 13. Ratification, Readoption and Confirmation.

Except as specifically modified by the amendments contained herein, Chapter 223 of the City of Beacon Zoning Code is otherwise to remain in full force and effect and is otherwise ratified, readopted and confirmed.

Section 14. Numbering for Codification.

It is the intention of the City of Beacon and it is hereby enacted that the provisions of this Local Law shall be included in the Code of the City of Beacon; that the sections and subsections of this Local Law may be re-numbered or re-lettered by the Codifier to accomplish such intention; that the Codifier shall make no substantive changes to this Local Law; that the word "Local Law" shall be changed to "Chapter," "Section" or other appropriate word as required for codification; and that any such rearranging of the numbering and editing shall not affect the validity of this Local Law or the provisions of the Code affected thereby.

Section 15. Severability.

The provisions of this Local Law are separable and if any provision, clause, sentence, subsection, word or part thereof is held illegal, invalid or unconstitutional, or inapplicable to any person or circumstance, such illegality, invalidity or unconstitutionality, or inapplicability shall not affect or impair any of the remaining provisions, clauses, sentences, subsections, words or parts of this Local Law or their petition to other persons or circumstances. It is hereby declared to be the legislative intent that this Local law would have been adopted if such illegal, invalid or unconstitutional provision, clause, sentence, subsection, word or part had not been included therein, and if such person or circumstance to which the Local Law or part hereof is held inapplicable had been specifically exempt there from.

Section 16. Effective Date.

This local law shall take effect immediately upon filing with the Office of the Secretary of State.

DRAFT

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Traffic & Parking Study

Appendix G | Other Development Traffic Data

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Appendix G | Mirbeau Beacon TIS Excerpt

Colliers Engineering & Design

Traffic Impact Study

May 24, 2022

Mirbeau Beacon
Wolcott Avenue (NYS Route 9D)
City of Beacon, Dutchess County, NY

Prepared for:

The Mirbeau Companies LLC
433 Broadway STE 203
Saratoga Springs, NY 12866

Prepared by:

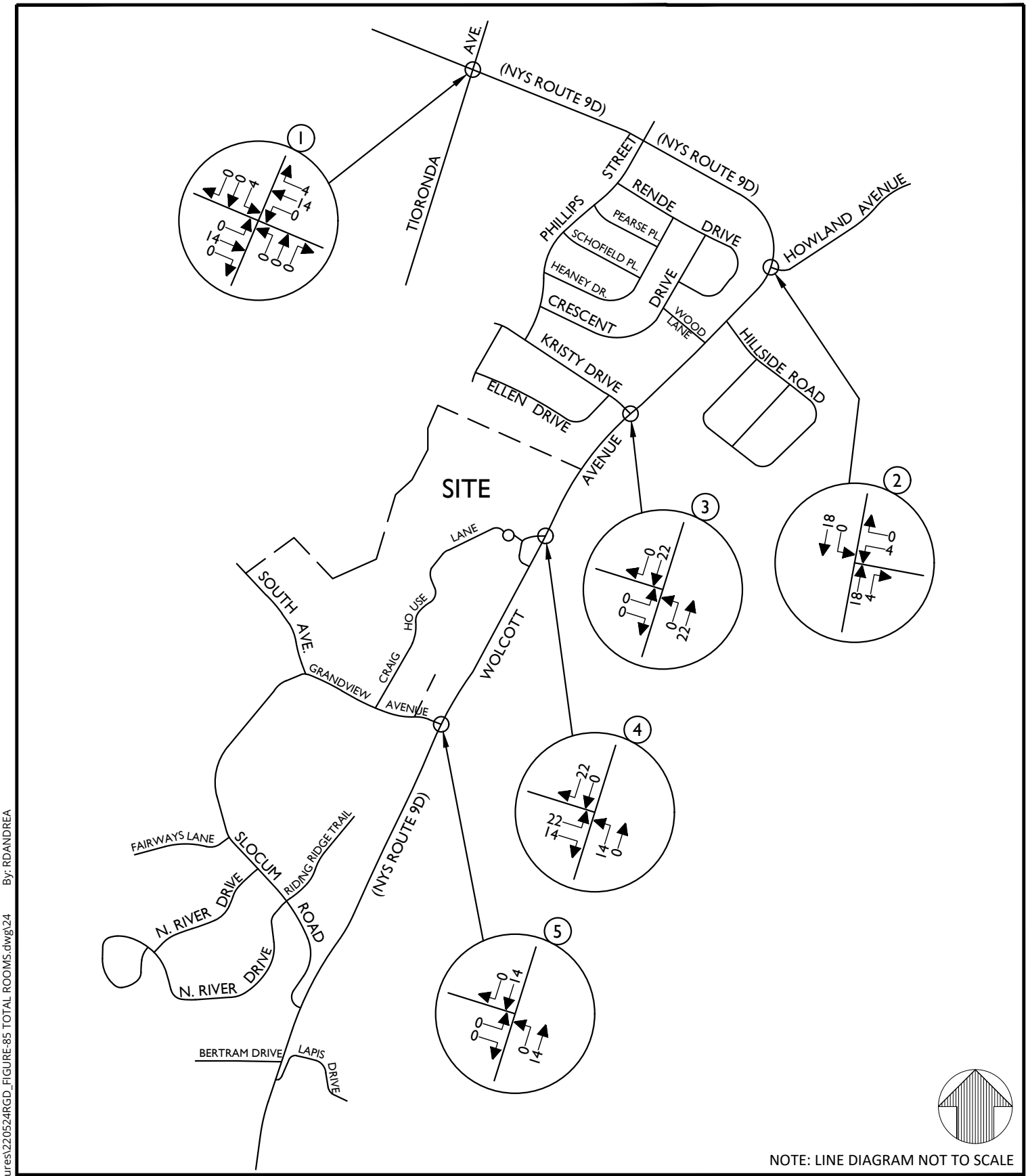
Philip J. Grealy, Ph.D., P.E.
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New York Professional Engineer
License No. 090241

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Project No. 21007271A

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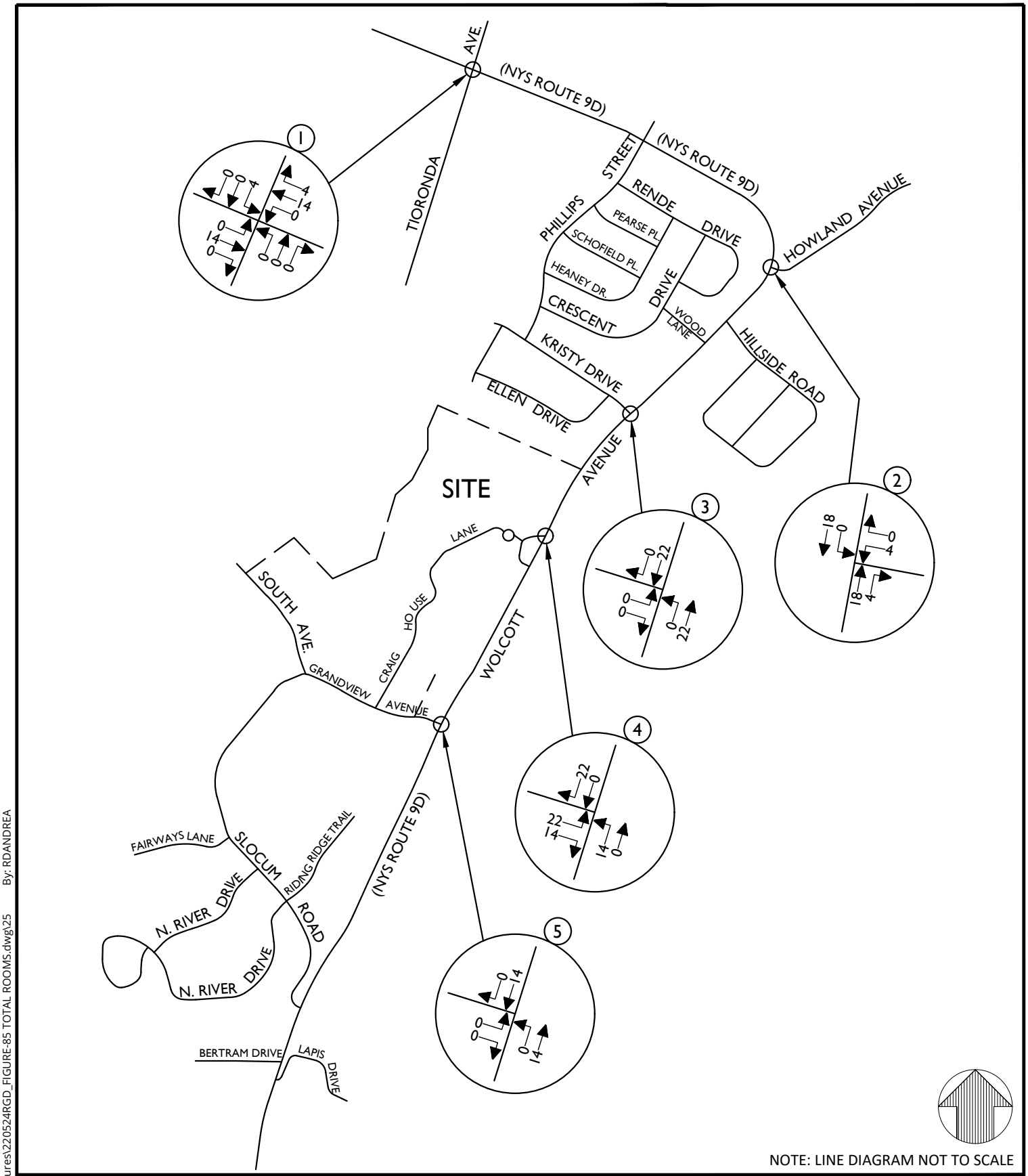
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AS SHOWN	5/24/22	R.H.	P.J.G.

PROJECT NUMBER:	DRAWING NAME:
21007271A	220524RGD_FIGURE-85 TOTAL ROOMS

SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK FRIDAY PM HOUR
(EVENT CONDITIONS)

SHEET NUMBER: 24

7271A-Mirbeau Spa\Reports\Traffic\Figures\220524RGD_FIGURE-85 TOTAL ROOMS.dwg\24 By: RDANDREA



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SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	5/24/22	R.H.	P.J.G.

PROJECT NUMBER:	DRAWING NAME:
21007271A	220524RGD_FIGURE-85 TOTAL ROOMS

SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
WEEKEND PEAK SATURDAY HOUR
(EVENT CONDITIONS)

SHEET NUMBER: 25

7271A-Mirbeau Spa\Reports\Traffic\Figures\220524RGD_FIGURE-85 TOTAL ROOMS.dwg\25 By: RDANDREA

Table No. 2
Hourly Trip Generation Rates (HTGR) and Analyzed Site Generated Traffic Volumes
Proposed Mirbeau Beacon

Mirbeau Beacon	Entry		Exit		Total
	HTGR[1]	Volume	HTGR[1]	Volume	
Mirbeau Beacon (80 Hotel Rooms)					
Peak PM Hour Generator	0.56	48	0.34	29	77
Saturday Peak Hour	0.36	31	0.40	34	65
Future Rental Homes (19 Units)					
Peak PM Hour Generator	0.56	11	0.34	6	17
Saturday Peak Hour	0.36	7	0.40	8	15
Total With Future Rental Homes					
Peak PM Hour Generator	-	59	-	35	94
Saturday Peak Hour	-	38	-	42	80
Events (100 Attendees)					
Peak PM Hour Generator	-	36	-	36	72
Saturday Peak Hour	-	36	-	36	72
Total With Events					
Peak PM Hour Generator	-	95	-	71	166
Saturday Peak Hour	-	74	-	78	152

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 - 310 - HOTEL.

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Appendix G |364 Main Street TIS Excerpt

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Main: 877 627 3772
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July 26, 2021
Revised August 30, 2021

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

O'Donnell Construction Corp.
364 Main Street – Application for Site Plan Approval
Beacon, New York
Colliers Engineering & Design Project No. 21001718A

Dear Chairman Gunn and Members of the Planning Board,

Colliers Engineering & Design has conducted a complete review of the traffic and parking related impacts of the proposed 364 Main Street commercial and multi-family mixed-use redevelopment project ("The Project"). The enclosed information is being provided as an update to our initial traffic and parking review letter for the Project dated May 25, 2021.

The 364 Main Street Project site is comprised of two (2) lots that are located on the north side of Main Street generally opposite of Veterans Place, east of Eliza Street and approximately 300 feet west of the Teller Avenue intersection. The 364 Main Street Lot is classified in the City of Beacon's Central Main Street (CMS) Zoning District and is presently improved by an approximately 7,031 sq. ft. building that was formerly occupied by Citizens Bank, which has since relocated to the 344 Main Street property at the corner of Eliza Street. The Project site currently has two (2) driveway connections to Main Street, including a one-way entry-only driveway on the east side of the existing building along the eastern property line and a one-way exit-only driveway on the west side of the existing building along the western property line. The Project site also includes the abutting property to the north, which is currently improved by a private parking lot that provides direct access to Eliza Street (the "Eliza Street Parcel"). The Eliza Street Parcel is classified in the in the Transitional (T) Zoning District.

The Applicant proposes to expand the existing one (1)-story building on the Project site to include approximately 6,674 sq. ft. of commercial space and 1,521 sq. ft. of residential common area space on the first floor and twenty (20) multi-family residential units on two (2) new upper floors. Note since our initial traffic and parking review, the development proposal has eliminated a previously proposed fourth floor that would have included seven (7) additional residential units. As part of the development Project, the 364 Main Street Lot and the Eliza Street Lots will share an internal driveway connection between the two (2) properties, which will provide 40 off-street parking spaces, including one (1) handicap-accessible parking spaces, for the Project. The off-street parking will consist of 29 spaces on the Eliza Street Lot and 14 spaces adjacent to the building on the 364 Main

Street Lot. Access to the Site is proposed to be provided via the existing entry-only and exit only driveway connections to Main Street on the east side of the building and two-way access to Eliza Street via the existing driveway connection to that roadway from the Eliza Street lot. Note the project no longer includes a public green space which was previously proposed on the west side of the building and would have eliminated the existing exit only driveway to Main Street.

The following provides description of the tasks undertaken to review the potential traffic and parking related impacts associated with the proposed development.

Existing Conditions

As previously described, the Project will be access via Main Street and Eliza Street with a majority of the project generated traffic also utilizing Fishkill Avenue/Teller Avenue for regional access to the Site. The following is a brief description of these roadways located within the study area.

Main Street

Main Street is a City street that consists of one lane in each direction and traverses in a northwest/southeast direction between NYS Route 9D and Churchill Street. Beyond Churchill Street, Main Street continues in a more northeasterly direction. Northwest of Fishkill Avenue/Teller Avenue, the roadway is classified as an Urban Major Collector, southeast of Fishkill Avenue it is classified as a local roadway. In the vicinity of the site, the roadway intersects with Eliza Street and Veteran's Place at an unsignalized "T" shaped intersection as well as with Fishkill Avenue/Teller Avenue (NYS Route 52) at a signalized full movement intersection. Sidewalks are provided on both sides of the street and striped pedestrian crossings are provided at the Eliza Street, Veterans Place and Fishkill Avenue/Teller Avenue intersections. Parking is permitted on both sides of Main Street for its entire length with the parking limited to two-hour parking between 9AM and 5PM seven days a week. Main Street has a City Speed Limit of 30 MPH northeast of Fishkill Avenue, while the speed limit southwest of Fishkill Avenue is 25 MPH.

Eliza Street

Eliza Street is a local City street that originates at an unsignalized "T" shaped intersection with Main Street. Between Main Street and Church Street Eliza Street is a one-way northbound only roadway with on-street parking and sidewalks provided on both sides of the street. This section of the roadway provides access to the Eliza Street portion of the project as well as the Eliza Street Public Parking lot on the west side of Eliza Street. North of Church Street, Eliza Street becomes a two-way roadway to Verplanck Avenue and then terminating at Kent Street.

Fishkill Avenue/Teller Avenue (NYS Route 52)

Fishkill Avenue and Teller Avenue are classified as Urban Minor Arterials. These roadways are also known as NYS Route 52 but are owned and maintained by the City. Fishkill Avenue and Teller Avenue each consist of one lane in each direction and traverse in a generally north/south direction. The roadway intersects Main Street at a full movement signalized intersection. Sidewalks are provided on both sides of the roadway to the north and south of Main Street. On street parking is not permitted along Teller Avenue, while limited on street parking is permitted along the

east side of Fishkill Avenue. Fishkill Avenue and Teller Avenue each have a posted City Speed Limit of 30 MPH. It is noted that improvements to this intersection are proposed as part of the City of Beacon Teller Avenue/Fishkill Avenue Rehabilitation project.

Manual traffic counts were collected by representatives of Colliers Engineering & Design on Thursday June 3, 2021 and Saturday June 5, 2021 for the Weekday AM and PM Peak periods and Saturday Midday Peak period to determine the existing traffic volume conditions at the study area intersections. This information was also compared to previous traffic data collected by our office within the study area during February 2020 prior to the onset of the COVID 19 Pandemic. 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 Fishkill Avenue/Teller Avenue (NYS Route 52) Corridor. Based on this information, the 2021 Existing Traffic Volumes were established for the Weekday Peak AM, Weekday Peak PM and Saturday Peak Hours at the following study area intersections.

- Fishkill Avenue/Teller Avenue (NYS Route 52) and Main Street
- Main Street and Veterans Place

Based upon a review of the traffic counts, the peak hours were generally identified as follows:

- Weekday Peak AM Hour 8:30 AM – 9:30 AM
- Weekday Peak PM Hour 3:45 PM – 4:45 PM
- Saturday Peak Hour 2:00 PM – 3:00 PM

The resulting 2021 Existing Traffic Volumes are shown on Figures No. 2, 3 and 4 (Appendix A) for the Weekday Peak AM, Weekday Peak PM and Saturday Peak Hours, respectively.

Future No-Build Conditions

The 2021 Existing Traffic Volumes were increased by a growth factor of 2.0% per year to account for general background growth resulting in the 2021 Projected Traffic Volumes, which are shown on Figures No. 5, 6 and 7 (Appendix A) for each of the Peak Hours. In addition, traffic associated with the recently approved 416-420 Main Street development was also accounted for. The resulting Other Development traffic volumes associated with that development are shown on Figures No. 8, 9 and 10 (Appendix A) 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 Weekday Peak AM, Weekday Peak PM and Saturday Peak Hours, respectively.

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Future Build Conditions

In order to assess the potential traffic related impacts associated with the Project, estimates of the amount of traffic to be generated by the Project during peak hours were developed based on information published by the Institute of Transportation Engineers (ITE) as contained in the report entitled "Trip Generation", 10th Edition, 2017, based on Land Use Category – 220 – Multi-Family Housing (Low-Rise) and Land Use Category – 820 – Retail. Table No. 1, below summarizes the trip generation rates and corresponding site generated traffic volumes for the Weekday Peak AM, Weekday Peak PM and Saturday Midday Peak Hours.

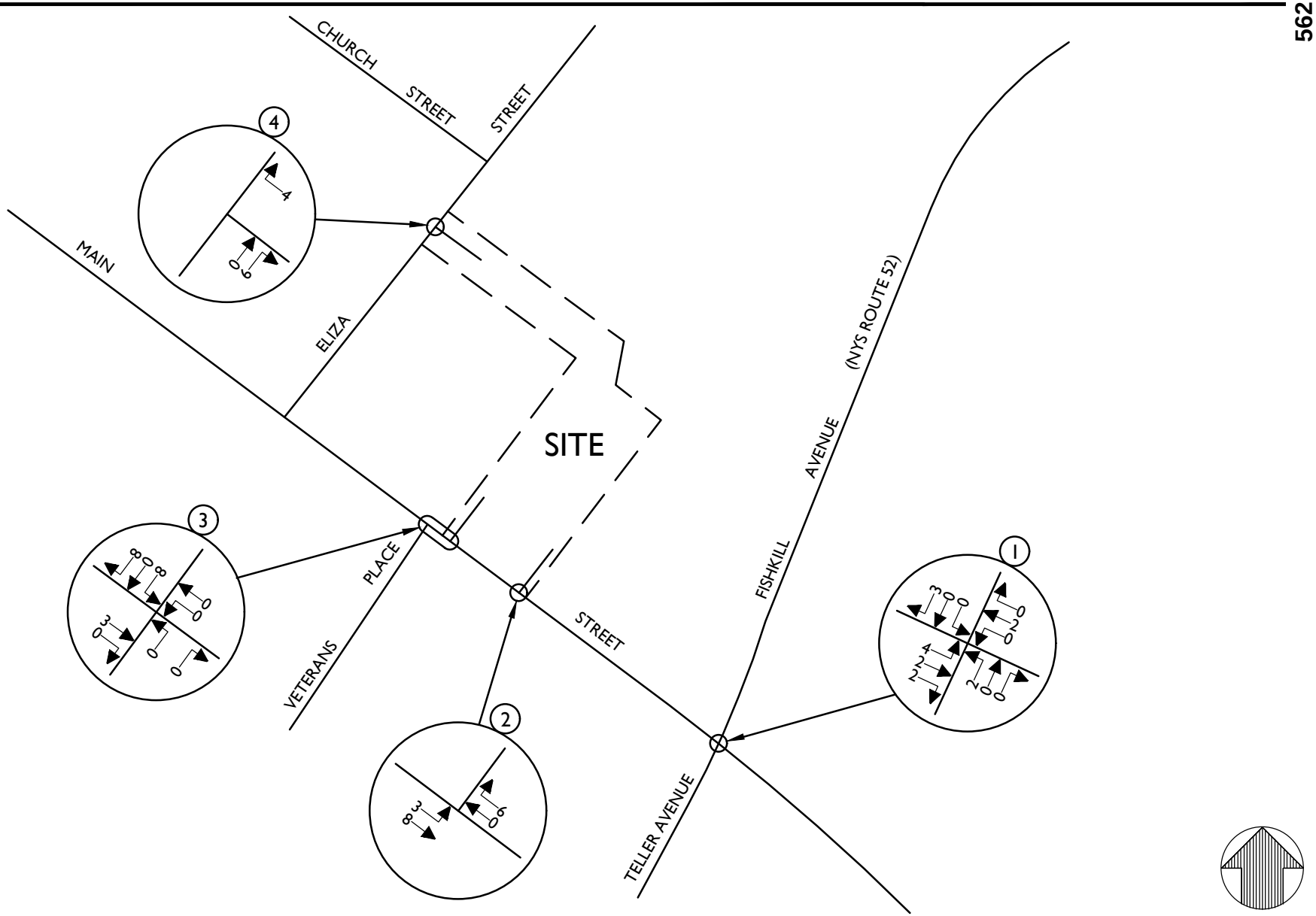
Table No. 1 – Anticipated Site Generated Traffic Volumes

Time Period	Entry		Exit		Total Volume
	HTGR	Volume	HTGR	Volume	
Residential – 20 Units					
Weekday AM Peak Hour	0.20	4	0.45	9	13
Weekday PM Peak Hour	0.45	9	0.30	6	15
Saturday Midday Peak Hour	0.40	8	0.30	6	14
Commercial – 6,674 Sq. Ft.					
Weekday AM Peak Hour	1.65	11	1.35	9	20
Weekday PM Peak Hour	2.10	14	2.10	14	28
Saturday Midday Peak Hour	2.40	16	2.10	14	30
Totals					
Weekday AM Peak Hour	---	15	---	18	33
Weekday PM Peak Hour	---	23	---	20	43
Saturday Midday Peak Hour	---	24	---	20	44

Source: 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, 10th Edition, 2017. ITR Land Use Code - Land Use Code - 220 - Residential, and ITE Land Use Code - 820 – Retail.

It should be noted that the above-referenced traffic generation estimates do not account for potential "internal" trips that would be expected to occur between the proposed residential and commercial uses of the Project. Data provided by ITE indicates that internal trips between residential and commercial land uses can be between 5% and 15% of the total traffic generation of the Project, which would therefore reduce the total number of vehicle trips generated by the development.

It is noted that the magnitude of trips anticipated to be generated by the Project is less than the NYSDOT and ITE recommended threshold of 100 new site generated trips at any one location, which would indicate the need for further detailed analysis. However, regardless of this guidance and in consideration of the Project's location along the Main Street corridor, a has been prepared as contained herein.



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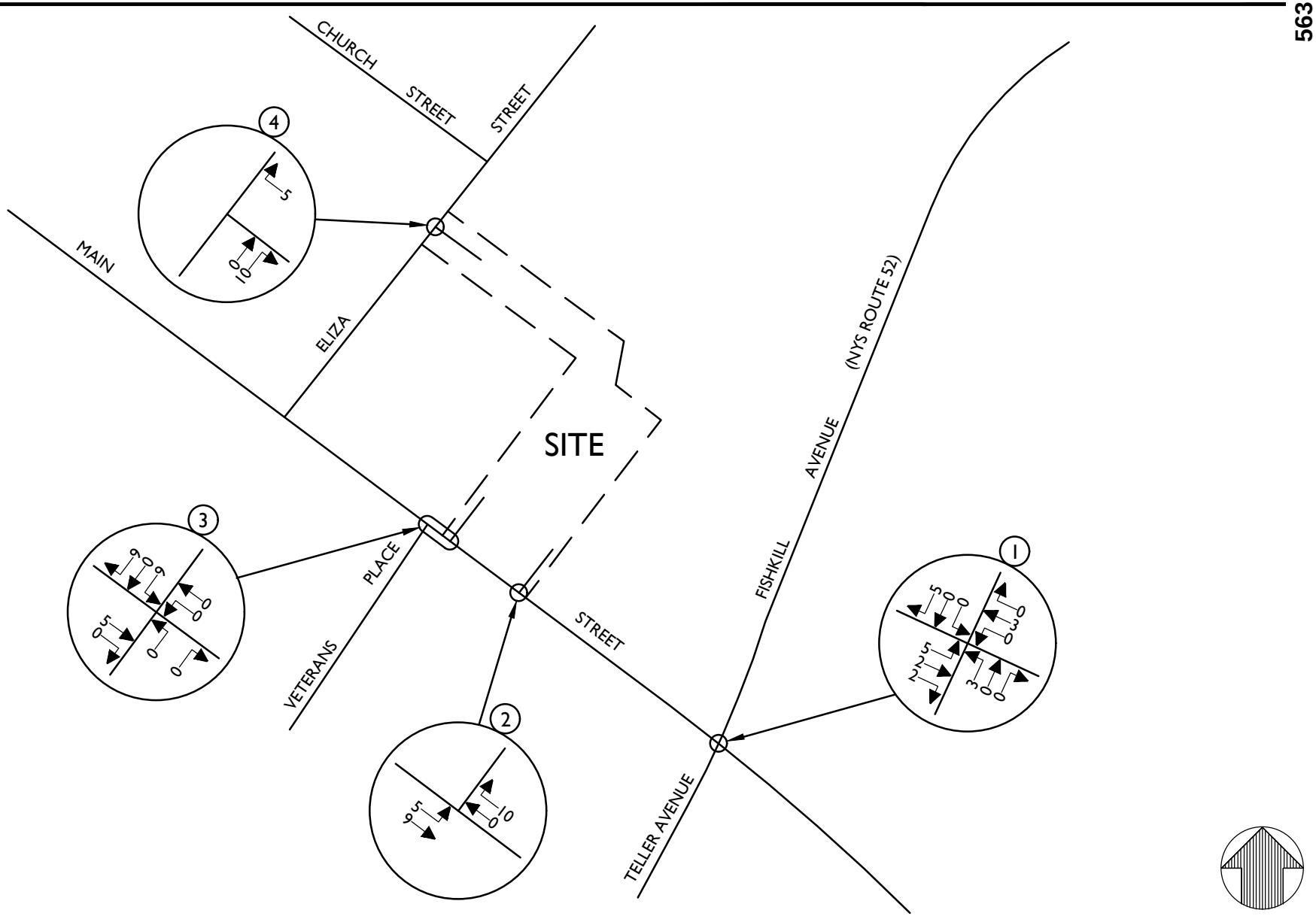
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DRAWING NAME: 210719RH_FIGURE

SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

SHEET NUMBER:
16

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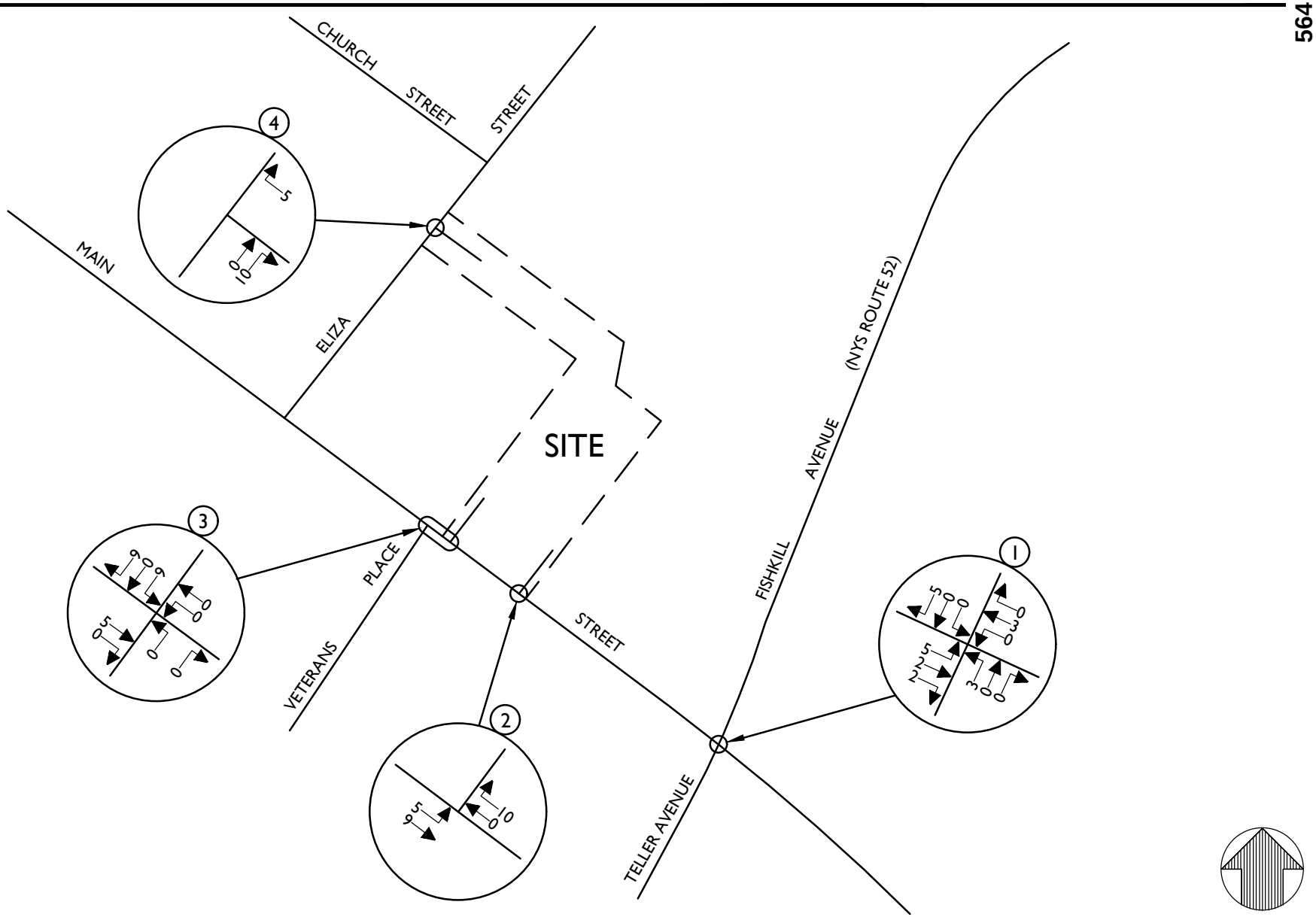
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PROJECT NUMBER: 21001718A
DRAWING NAME: 210719RH_FIGURE

SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

SHEET NUMBER:
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AS SHOWN	7/19/21	R.H.	R.G.D.

PROJECT NUMBER: 21001718A
DRAWING NAME: 210719RH_FIGURE

SHEET TITLE:
SITE GENERATED TRAFFIC VOLUMES
SATURDAY PEAK HOUR

SHEET NUMBER:
18

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Appendix G | Edgewater (Edgewater Place) TIS Excerpt

Engineers Planners Surveyors Landscape Architects Environmental Scientists

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Traffic Impact Study

Edgewater Development

Tompkins Avenue and Branch Street
City of Beacon, Dutchess County, New York

January 18, 2017
Revised February 27, 2017

Prepared For

Scenic Beacon Developments, LLC
25 East Main Street
Beacon, NY 12508

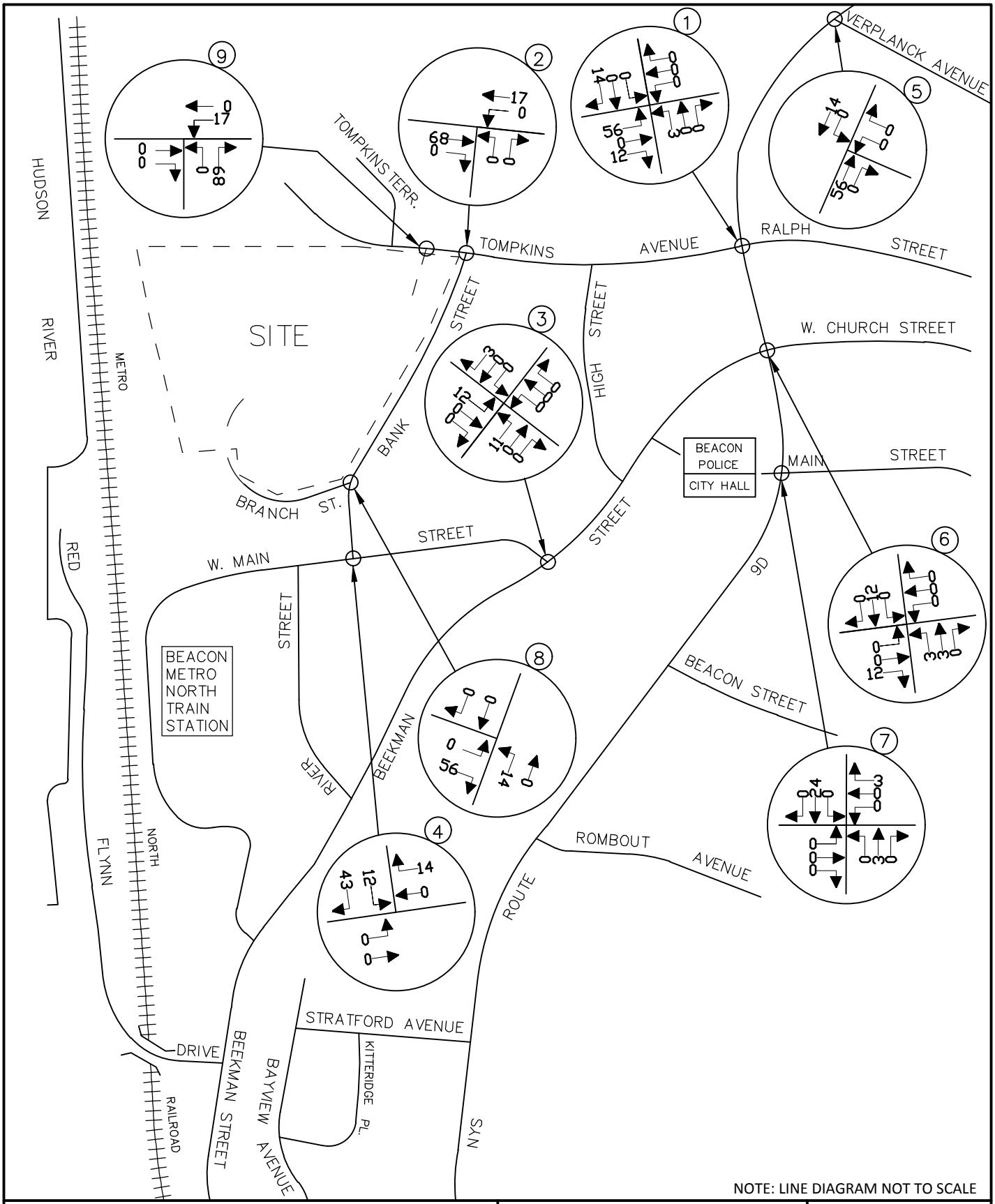
Prepared By

Maser Consulting P.A.
11 Bradhurst Avenue
Hawthorne, NY 10532
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Philip J Grealy, Ph.D., P.E., Principal/Dept. Manager
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Richard G D'Andrea, P.E., PTOE, Associate/ Project Manager
License No. 092041

MC Project No. 16003078.A



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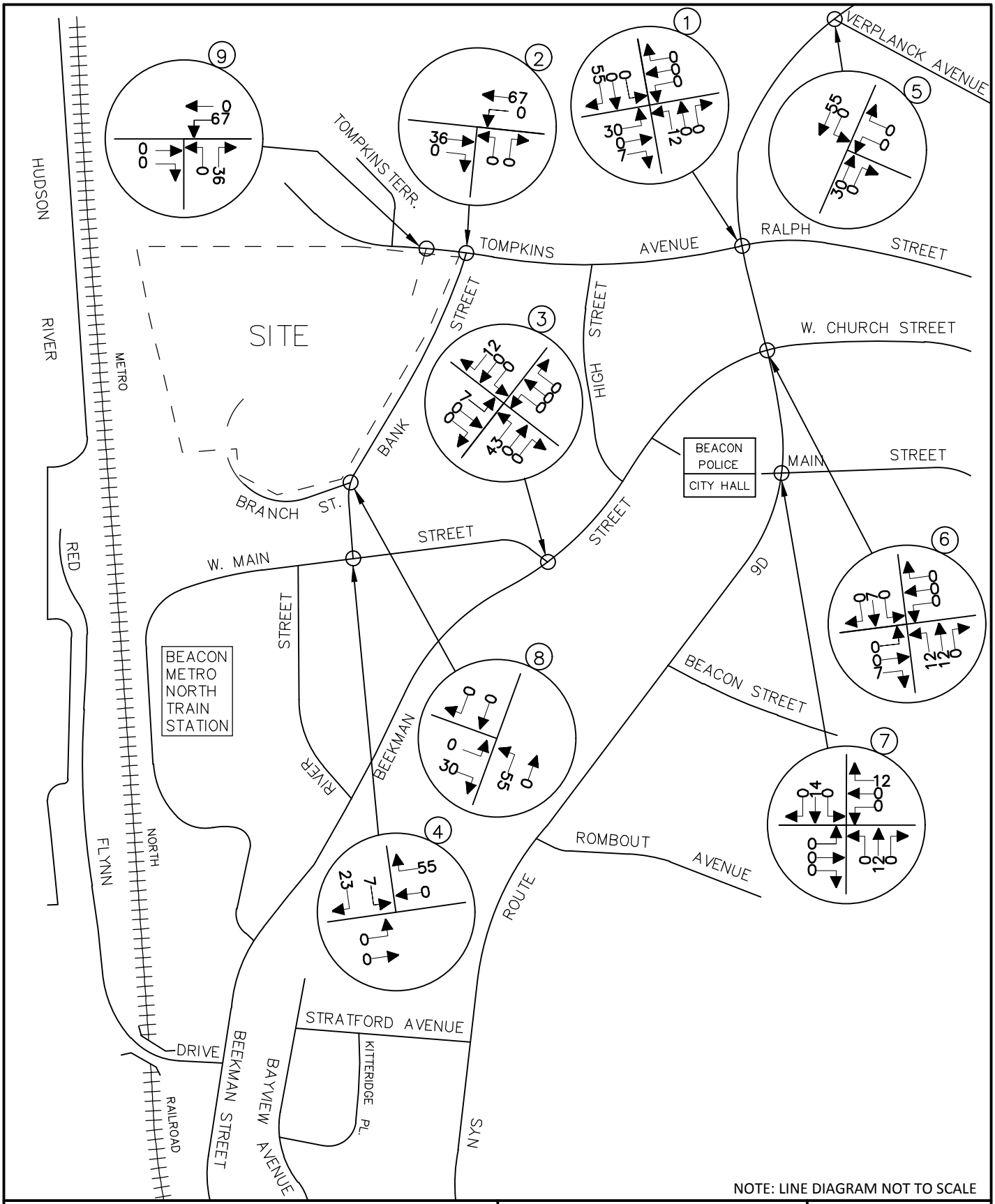
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email: solutions @ maserconsulting.com

EDGEWATER
CITY OF BEACON, DUTCHESS COUNTY, NY

SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK AM HOUR

JOB NUMBER:	DATE:
16003078A	FEB. 2017
FIGURE NUMBER:	
12	



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EDGEWATER
CITY OF BEACON, DUTCHESS COUNTY, NY

SITE GENERATED TRAFFIC VOLUMES
WEEKDAY PEAK PM HOUR

JOB NUMBER:	DATE:
16003078A	FEB. 2017
FIGURE NUMBER:	
13	

TABLE 1

HOURLY TRIP GENERATION RATES (HTGR) AND ANTICIPATED SITE GENERATED TRAFFIC VOLUMES

EDGEWATER BEACON, NY	ENTRY		EXIT	
	HTGR*	VOLUME	HTGR*	VOLUME
APARTMENT (309 DWELLING UNITS)				
PEAK AM HOUR	0.10	31	0.40	124
PEAK PM HOUR	0.39	122	0.21	66

NOTES:

1) * HTGR-HOURLY TRIP GENERATION RATES EXPRESSED IN TERMS OF TRIPS PER 1000 S.F. FOR LAND USES - 220 APARTMENT; BASED ON THE INSTITUTE OF TRANSPORTATION ENGINEERS (ITE) PUBLICATION ENTITLED "TRIP GENERATION", 9TH EDITION, 2012.

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Appendix G | Beacon Commons TIS Excerpt

TRAFFIC STUDY

BEACON COMMONS

16 WEST MAIN STREET
CITY OF BEACON, NEW YORK

Prepared for: **Farrell Building Company**
2317 Montauk Highway
Bridgehampton, NY 11932

Prepared by:

JMC Project **18119**

Date: March 31, 2020
Revised: March 8, 2022
Revised: May 31, 2022
Revised: June 28, 2022

TABLE 1

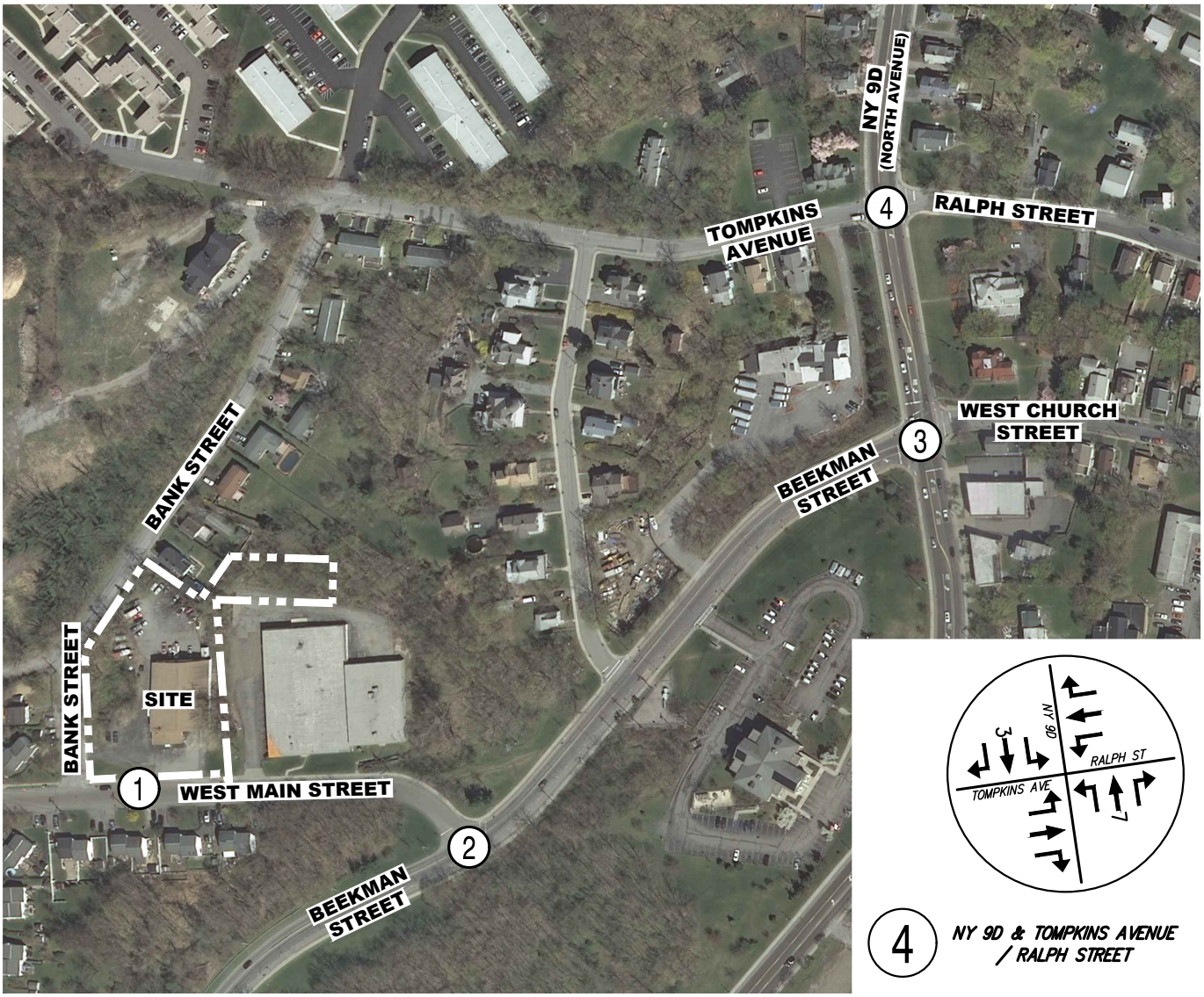
PROPOSED DEVELOPMENT VOLUMES[1]

DESCRIPTION	PEAK WEEKDAY AM HOUR			PEAK WEEKDAY PM HOUR		
	ENTER	EXIT	TOTAL	ENTER	EXIT	TOTAL
a. Proposed 62 Unit Multifamily Housing Primary Volumes (ITE Code 221)[2]	6	16	22	17	11	28

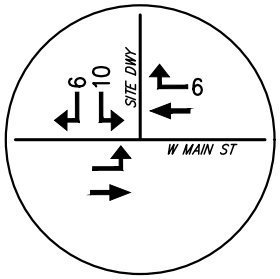
Notes:

(1) Trip generation is based on Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition.

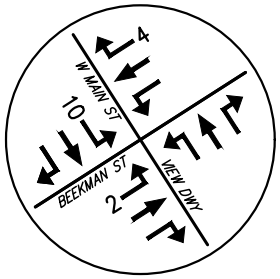
(2) Multifamily Housing (Mid-Rise) (ITE Code 221) is defined by ITE as multifamily housing including apartments, townhouses, and condominiums located within the same building with at least three other dwelling units and that have between three and 10 levels (floors).



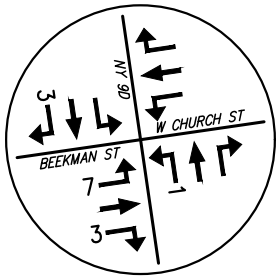
4 NY 9D & TOMPKINS AVENUE / RALPH STREET



1 WEST MAIN STREET & SITE DRIVEWAY



2 WEST MAIN STREET / THE VIEW DRIVEWAY & BEEKMAN STREET



3 NY 9D & BEEKMAN STREET / WEST CHURCH STREET

BEACON COMMONS

16 WEST MAIN STREET BEACON, NY 12508

PRIMARY VOLUMES

PEAK WEEKDAY AM HOUR

DATE: 03/31/2020 JMC PROJECT: 18119

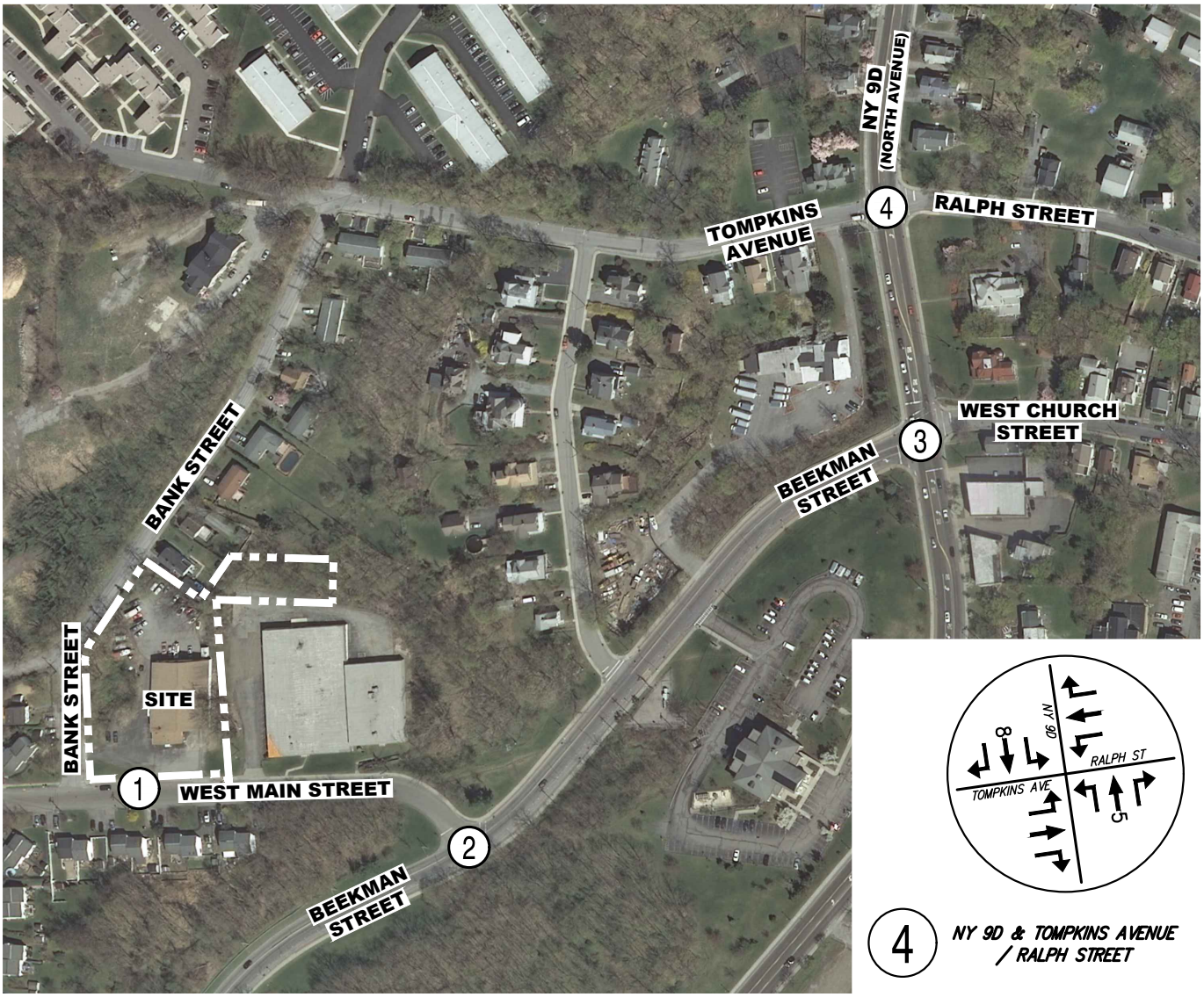
FIGURE: 13 SCALE: 1" = 250'

120 BEDFORD RD
ARMONK
NY 10504

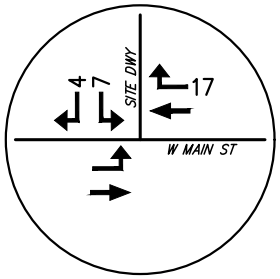
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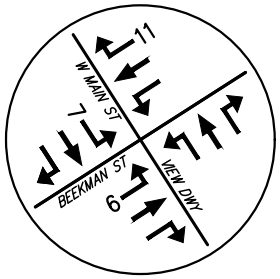
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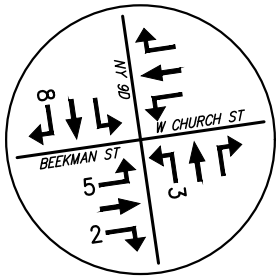
4 NY 9D & TOMPKINS AVENUE / RALPH STREET



1 WEST MAIN STREET & SITE DRIVEWAY



2 WEST MAIN STREET / THE VIEW DRIVEWAY & BEEKMAN STREET



3 NY 9D & BEEKMAN STREET / WEST CHURCH STREET

BEACON COMMONS

16 WEST MAIN STREET BEACON, NY 12508

PRIMARY VOLUMES

PEAK WEEKDAY PM HOUR

DATE: 03/31/2020 JMC PROJECT: 18119

FIGURE: 14 SCALE: 1" = 250'

120 BEDFORD RD
ARMONK
NY 10504

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Appendix G | Prophecy Theater TIS Excerpt

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Traffic & Parking Study

February 21, 2022

1113 Wolcott Avenue

City of Beacon
Dutchess County, New York

Prepared for:

Prophecy Theatre LLC
369 Main Street, Unit 493 Beacon,
NY 12508

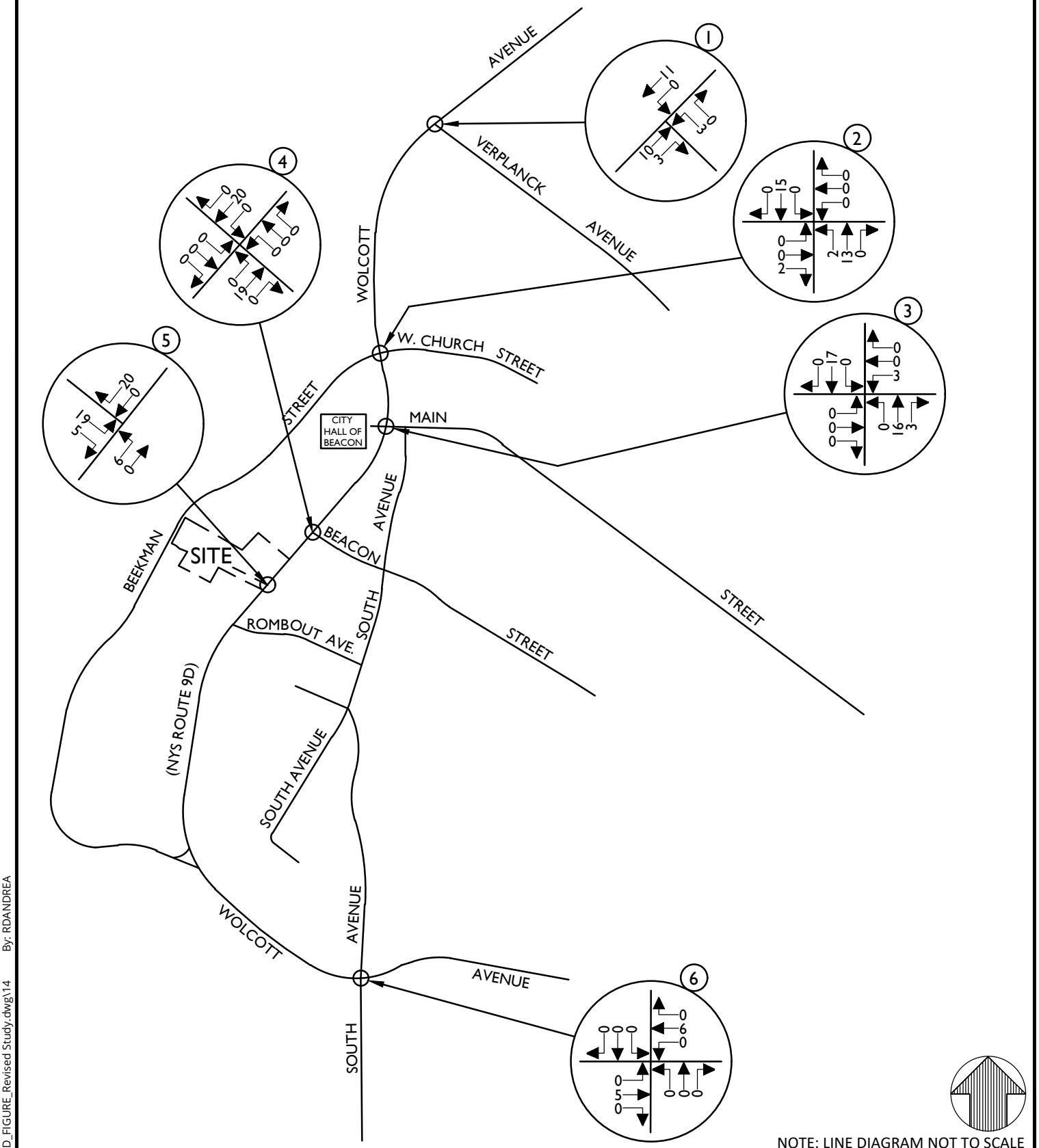
Prepared by:

Richard G. D'Andrea, P.E., PTOE
New York Professional Engineer
License No. 090241

Colliers Engineering & Design
400 Columbus Avenue
Suite 180E
Valhalla New York 10595
Main: 877 627 3772
Colliersengineering.com

Project No. 21004333A

Maser Consulting is now Colliers Engineering & Design



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PROPHECY THEATER

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(NYS ROUTE 9D)
CITY OF BEACON
DUTCHESS COUNTY
NEW YORK

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Phone: 914.347.7500
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TRAFFIC IMPACT STUDY

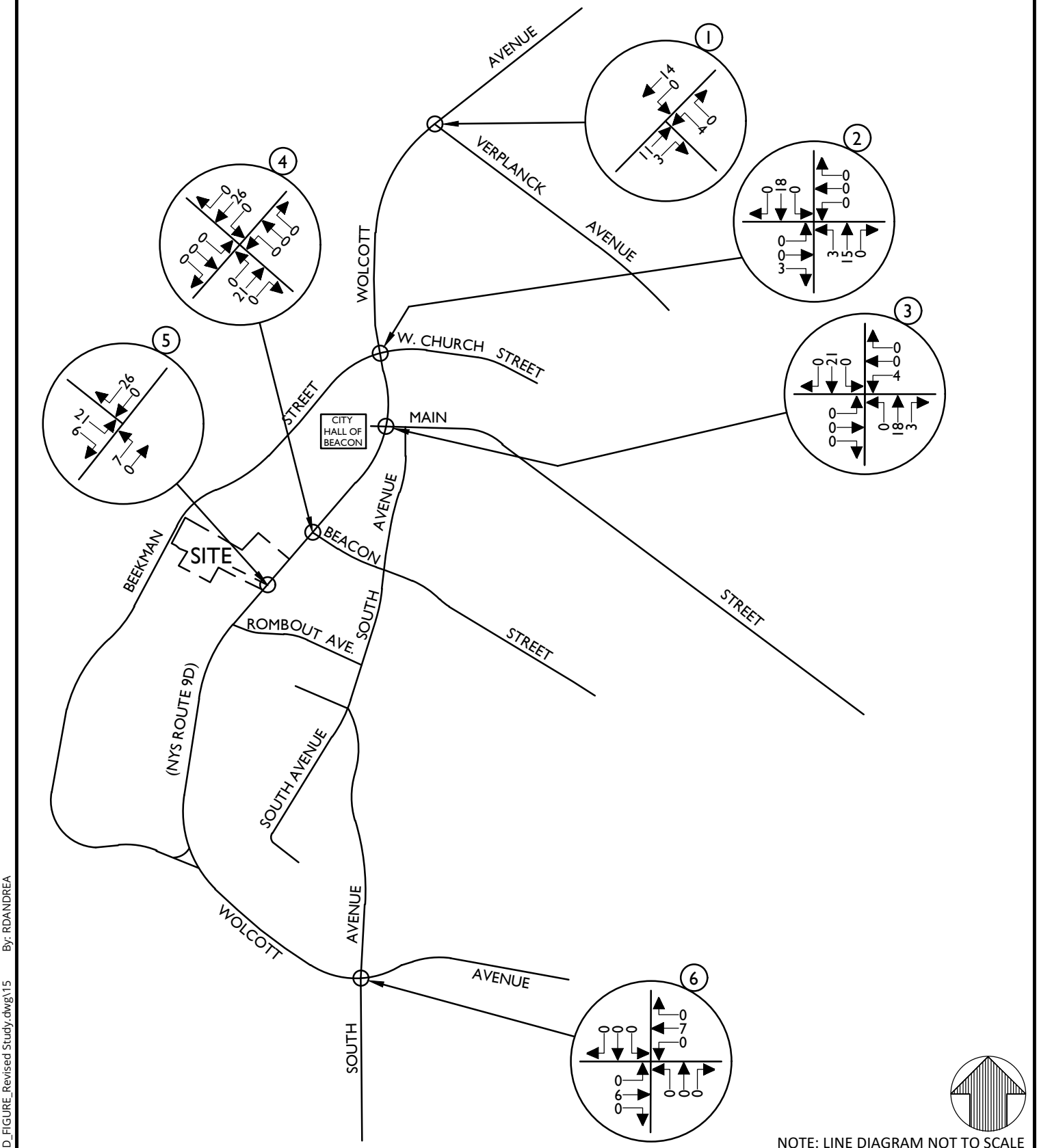
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/5/21	R.H.	P.J.G.

PROJECT NUMBER: 21004333A
DRAWING NAME: 220221RGD_FIGURE_REVISED STUDY

SHEET TITLE:
TYPICAL CONDITIONS
SITE GENERATED TRAFFIC VOLUMES
FRIDAY PM PEAK HOUR

SHEET NUMBER: 14

4333A\Reports\TrafficFigures\220221RGD_FIGURE_Revised Study.dwg\14 By: RDANDREA



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CITY OF BEACON
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TRAFFIC IMPACT STUDY

SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	10/5/21	R.H.	P.J.G.

PROJECT NUMBER:	DRAWING NAME:
21004333A	220221RGD_FIGURE_REVISED STUDY

SHEET TITLE:
TYPICAL CONDITIONS
SITE GENERATED TRAFFIC VOLUMES
SATURDAY PEAK HOUR

SHEET NUMBER:
15

4333A\Reports\TrafficFigures\220221RGD_FIGURE_Revised Study.dwg\15 By: RDANDREA

Table No. 1
Hourly Trip Generation Rates (HTGR) and
Anticipated Site Generated Traffic Volumes

1113 Wolcott Avenue City of Beacon, New York	Entry			Exit			Total Trips
	HTGR[1]	Volume	New Trips[2]	HTGR1	HTGR[1]	New Trips[2]	
Typical Conditions							
Weekday Peak PM Hour							
Hotel (30 Rooms)	0.37	11	9	0.40	12	8	17
Café (50 Seats)	0.12	15	12	0.10	12	9	21
Total	-	**26**	**21**	-	**24**	**17**	**38**
Saturday Midday Peak Hour							
Hotel (30 Rooms)	0.60	18	14	0.50	15	12	26
Café (50 Seats)	0.12	15	12	0.10	12	9	21
Total	-	**33**	**26**	-	**27**	**21**	**47**
Event Conditions							
Weekday Peak Event Entry Hour							
Hotel (30 Rooms)	0.37	11	6	0.40	12	8	14
Event (350 Persons)	1.02	127	109	0.20	25	19	128
Total	-	**138**	**115**	-	**37**	**27**	**142**
Weekday Peak Event Exit Hour							
Hotel (30 Rooms)	0.37	11	6	0.40	12	8	14
Event (350 Persons)	0.20	25	18	1.02	127	110	128
Total	-	**36**	**24**	-	**139**	**118**	**142**
Saturday Peak Event Entry Hour							
Hotel (30 Rooms)	0.50	15	8	0.40	12	6	14
Event (350 Persons)	1.02	127	107	0.20	25	17	124
Total	-	**142**	**115**	-	**37**	**23**	**138**
Saturday Peak Event Exit Hour							
Hotel (30 Rooms)	0.50	15	8	0.40	12	6	14
Event (350 Persons)	0.20	25	16	1.02	127	108	124
Total	-	**40**	**24**	-	**139**	**114**	**138**

NOTES:

1) The Hotel and Café Hourly Trip Generation Rates (HTGR) are based on data published by the Institute of Transportation Engineers (ITE) as contained in the Trip Generation Handbook, 10TH Edition, 2017. ITE Land Use Code - 310 - Hotel and Land Use - 932 - High-Turnover (Sit-Down) Restaurant. The Event traffic generation is based on a 2.75 Persons per Vehicle car occupancy ratio for the maximum of 350 guests. It is assumed that all guests will enter in a one hour period prior to the event and exit in a one hour period following the event.

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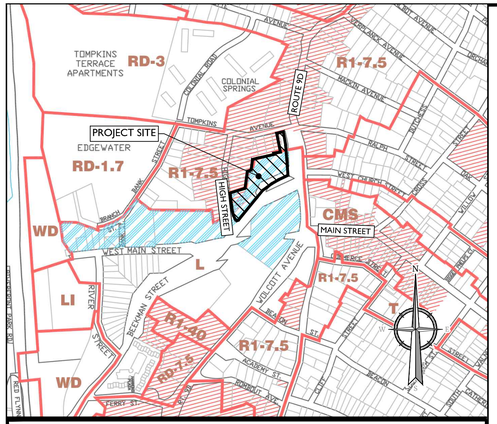
PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS: 5955-19-706012, 5954-26-689990, 5954-26-781983

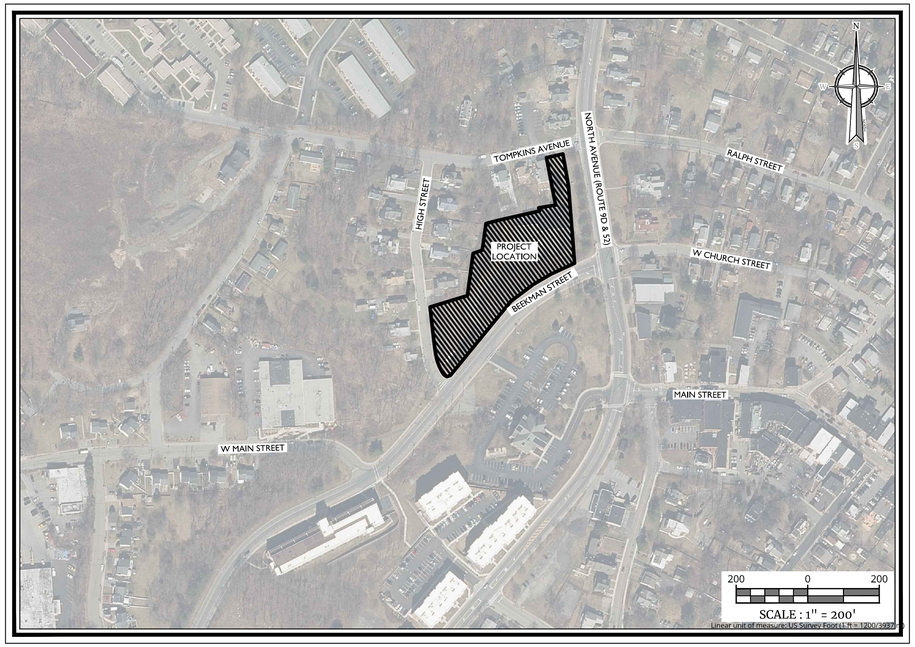
CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE



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	6/25/2024
2	EXISTING CONDITIONS & SITE DEMOLITION PLAN	6/25/2024
3	TREE REMOVAL PLAN	6/25/2024
4	DIMENSION PLAN	6/25/2024
5-7	GRADING PLANS	6/25/2024
8-9	UTILITY PLANS	6/25/2024
10	SOIL EROSION & SEDIMENT CONTROL PLAN	6/25/2024
11	SOIL EROSION & SEDIMENT CONTROL DETAILS	6/25/2024
12	LANDSCAPE PLAN	6/25/2024
13	LIGHTING PLAN	6/25/2024
14-19	CONSTRUCTION DETAILS	6/25/2024

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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 2.06 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 AND REVISED TO JUNE 06, 2024.
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. PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES, A PRE-CONSTRUCTION MEETING SHALL BE CONDUCTED IN ACCORDANCE WITH MS4'S 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.
12. 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.

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REV	DATE	DRAWN BY	DESCRIPTION
1	06/25/24	KAS	REVISED PER PLANNING BOARD COMMENTS

Digitally signed by Justin E. Dates
Date: 2024.06.25 11:12:10-04'00'

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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-CVER

SHEET TITLE: COVER SHEET

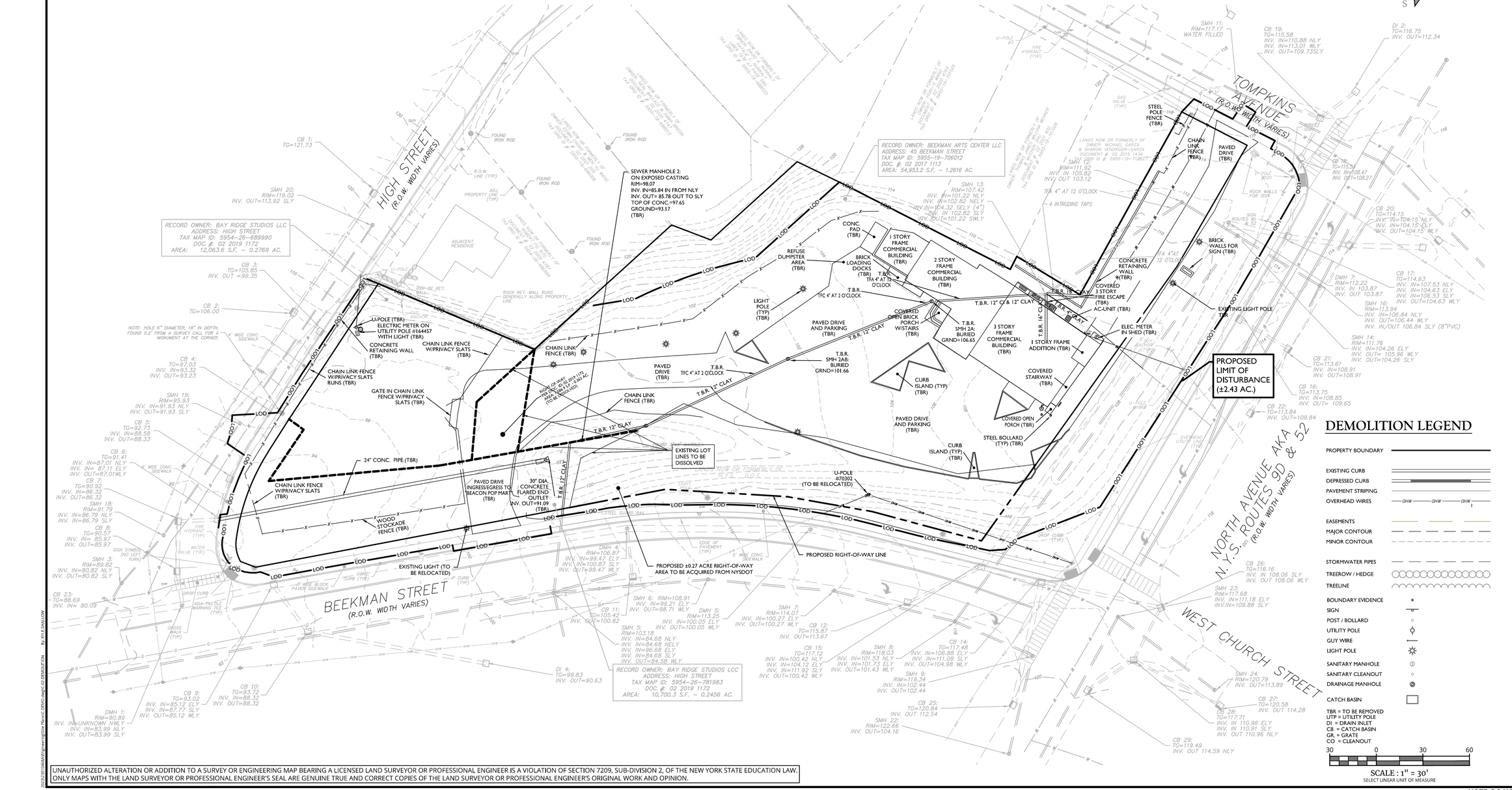
SHEET NUMBER: 01 of 19

By: IOLE.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.



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\23010468\Engineering\dwg\Site Plans\C-DEMO.dwg|C-DEMO, By: KYLE SMALLOW

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

Colliers Engineering & Design
www.colliersengineering.com

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Doing Business as MASER CONSULTING

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
1	06/25/24	KAS	REVISED PER PLANNING BOARD COMMENTS

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NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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

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NEWBURGH
555 Hudson Valley Avenue
Suite 101
New Windsor, NY 12553
Phone: 845.564.4495
COLLIERS ENGINEERING & DESIGN
ARCHITECTURE, ENGINEERING, CONSULTING
SURVEYING CT, P.C. DORG/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-DEMO		

SHEET TITLE:
EXISTING CONDITIONS & SITE DEMOLITION PLAN

SHEET NUMBER:
02 of 19

DEMOLITION NOTES:

TREE NUMBER	TREE SIZE IN INCHES AT DBH	COMMON NAME
1	9"	BRADFORD PEAR
2	23"	RED OAK
3	14"	WHITE PINE
4	19"	RED OAK
5	13"/9"	WHITE PINE
6	19.5"	RED OAK
7	8"	BRADFORD PEAR
8	7.5"	WHITE PINE
9	10"/8"	WHITE PINE
10	15.5"	RED OAK
11	7"	BRADFORD PEAR
12	18"	NORWAY MAPLE
13	15"	NORWAY MAPLE
14	26"	BLACK LOCUST
15	24"/18"	BLACK LOCUST
16	6"	BLACK CHERRY
17	20"	BLCK LOCUST
18	6"	BLACK LOCUST
19	6"	BLACK WALNUT
20	20"	NORWAY MAPLE
21	16"	NORWAY MAPLE
22	6"/8"	NORWAY MAPLE
23	15"	NORWAY MAPLE
24	8"	BLACK LOCUST
25	23"	NORWAY MAPLE
26	6"	NORWAY MAPLE

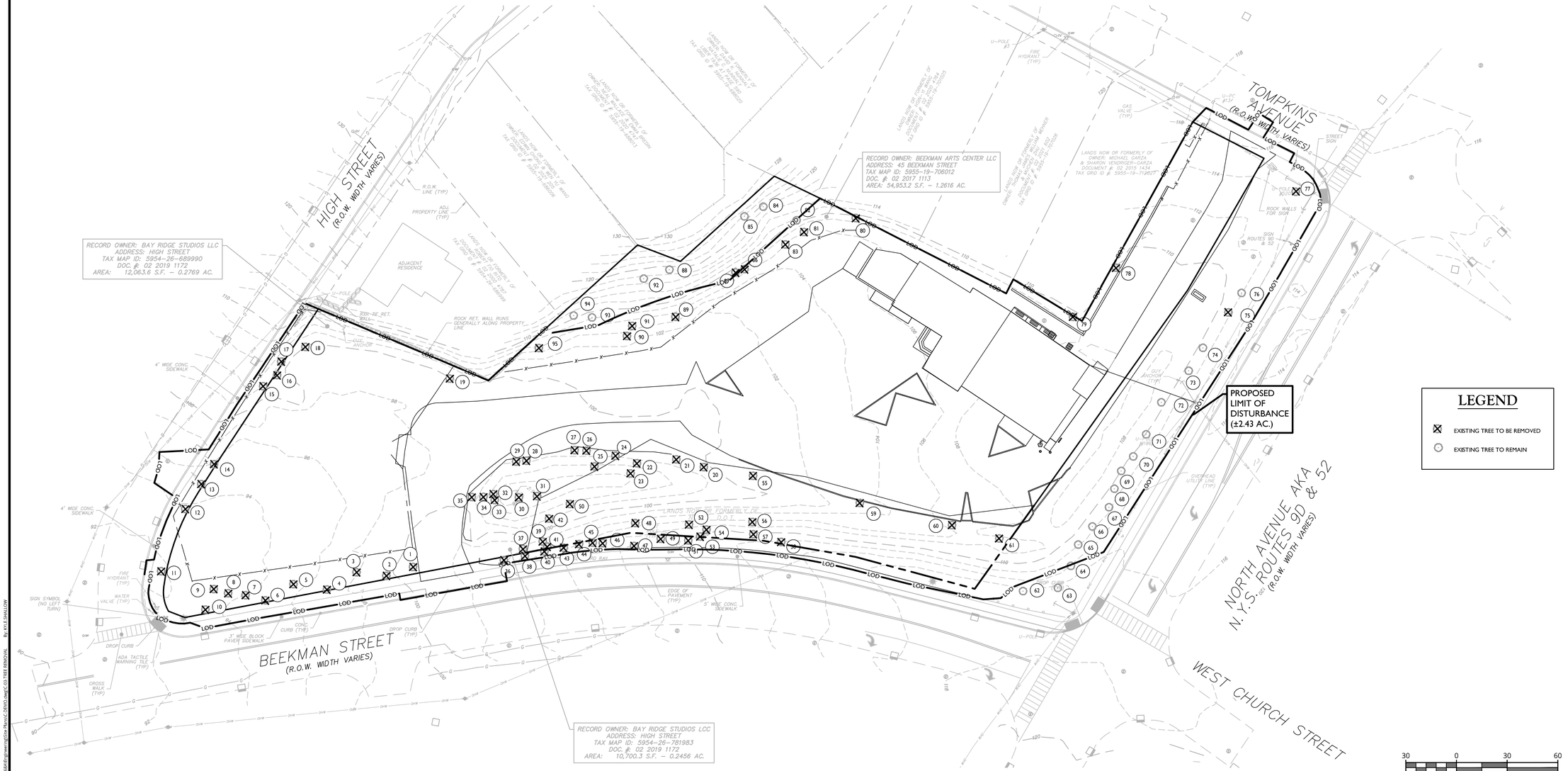
TREE NUMBER	TREE SIZE IN INCHES AT DBH	COMMON NAME
27	7"	NORWAY MAPLE
28	7"	NORWAY MAPLE
29	6"/7"	NORWAY MAPLE
30	23"	BIGTOOTH ASPEN
31	23"	BIGTOOTH ASPEN
32	11"	NORWAY MAPLE
33	12"	BOX ELDER
34	12"	NORWAY MAPLE
35	8"	MULBERRY
36	6"	NORWAY MAPLE
37	6"	NORWAY MAPLE
38	6"	NORWAY MAPLE
39	12"	RED OAK
40	6"	BOX ELDER
41	6"/8"	NORWAY MAPLE
42	6"	NORWAY MAPLE
43	12"	RED OAK
44	6"/6"	NORWAY MAPLE
45	6"/6"/7"	NORWAY MAPLE
46	14"	RED OAK
47	6"	NORWAY MAPLE
48	6"	NORWAY MAPLE
49	12"	BLACK CHERRY
50	11"/17"	BLACK LOCUST
51	8"	BLACK LOCUST
52	8"	NORWAY MAPLE

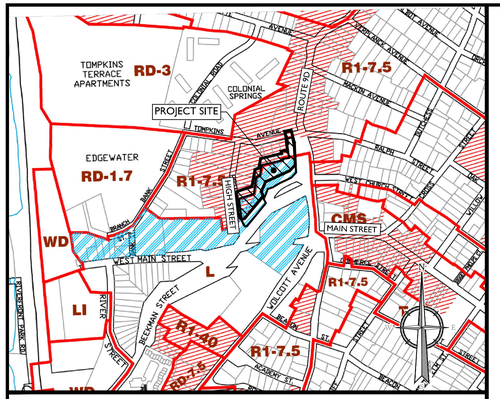
TREE NUMBER	TREE SIZE IN INCHES AT DBH	COMMON NAME
53	8"	BLACK LOCUST
54	9"	NORWAY MAPLE
55	16"	BLACK WALNUT
56	15"/11"/11"	BLACK LOCUST
57	6"	NORWAY MAPLE
58	13"	BLACK LOCUST
59	16"	CATALPLA
60	14"/14"/14"	SYCAMORE
61	6"	CATALPLA
62	15"	RED OAK
63	15"	WHITE PINE
64	16"	LITTLELEAD LINDEN
65	14"	WHITE PINE
66	11"	WHITE PINE
67	17"	LITTLELEAF LINDEN
68	11"	WHITE PINE
69	10"	WHITE PINE
70	17"	LITTLELEAF LINDEN
71	11"	WHITE PINE
72	15"	LITTLELEAF LINDEN
73	14"	WHITE PINE
74	16"	LITTLELEAF LIDNEN
75	10"	WHITE PINE
76	16"	LITTLELEAF LINDEN
77	18"	LITTLELEAF LINDEN
78	24"/20"	NORWAY SPRUCE

TREE NUMBER	TREE SIZE IN INCHES AT DBH	COMMON NAME
79	18"	BRADFORD PEAR
80	30"	NORWAY MAPLE
81	13"	CATALPA
82	6"	NORWAY MAPLE
83	6"/8"	NORWAY MAPLE
84	24"	NORWAY MAPLE
85	12"	NORWAY MAPLE
86	10"	NORWAY MAPLE
87	10"	BRADFORD LOCUST
88	17"	NORWAY MAPLE
89	6"	NORWAY MAPLE
90	30"	NORWAY MAPLE
91	6"	NORWAY MAPLE
92	24"	NORWAY MAPLE
93	12"/14"	NORWAY MAPLE
94	10"	NORWAY MAPLE
95	31"	NORWAY MAPLE

PLAN NOTE

1. IDENTIFICATION OF EXISTING TREE SPECIES AND LOCATION CONDUCTED BY COLLIERS ENGINEERING & DESIGN, JUNE 2024.
2. CONTRACTOR TO STAKE-OUT L.O.D. ALONG THE NORTHERN SIDE OF THE PROJECT SITE AND EXISTING TREES IN CLOSE PROXIMITY TO THE L.O.D. SHALL BE REVIEWED FOR POTENTIAL PRESERVATION.


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)
WEST CHURCH STREET
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
DOC. #: 02 2019 1172
AREA: 10,700.3 S.F. – 0.2456 AC.
PROPOSED LIMIT OF DISTURBANCE (±2.43 AC.)
LOD
ADJACENT RESIDENCE
LANDS NOW OR FORMERLY OF OWNER: MICHAEL GARZA & SHARON VENDRIGER-GARZA DOCUMENT # 02 2015 14,34 TAX GRID ID #: 5955-19-712627
LANDS NOW OR FORMERLY OF OWNER: THOMAS M. REILLY DOCUMENT # 02 2016 10526 TAX GRID ID #: 5955-19-705526



VICINITY MAP
SCALE: 1" = 500'
SOURCE: CITY OF BEACON ZONING MAP

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%	35.5%	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.	143 FT.	OK
FRONT YARD SETBACK	0 FT.	1 FT.	OK
SIDE YARD SETBACK	0 FT.	N/A	OK
REAR YARD SETBACK	25 FT.	46.7 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.	19.6 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
14,892 SF OF RETAIL SPACE = 45 SPACES

TOTAL PARKING REQUIRED = 109 SPACES

PROVIDED

TOTAL PARKING PROVIDED = 88 SPACES
(BASED ON SHARED PARKING ANALYSIS)

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: 10,566 SF OF RETAIL SPACE = 1 LOADING SPACE
BUILDING 2: 4,326 SF OF RETAIL SPACE = 0 LOADING SPACES

PROVIDED

TOTAL LOADING SPACES PROVIDED:
EAST BLDG: = 1 LOADING SPACE
WEST BLDG: = 1 LOADING SPACE

OWNER/APPLICANT:

BEEKMAN ARTS CENTER LLC (TAX ID: 5955-19-706012)
268 MAIN STREET
BEACON, NY 12508

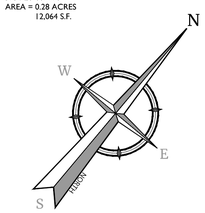
BAYRIDGE STUDIOS LLC (TAX ID: 5954-26-781983 & 5954-26-689990)
268 MAIN STREET
BEACON, NY 12508

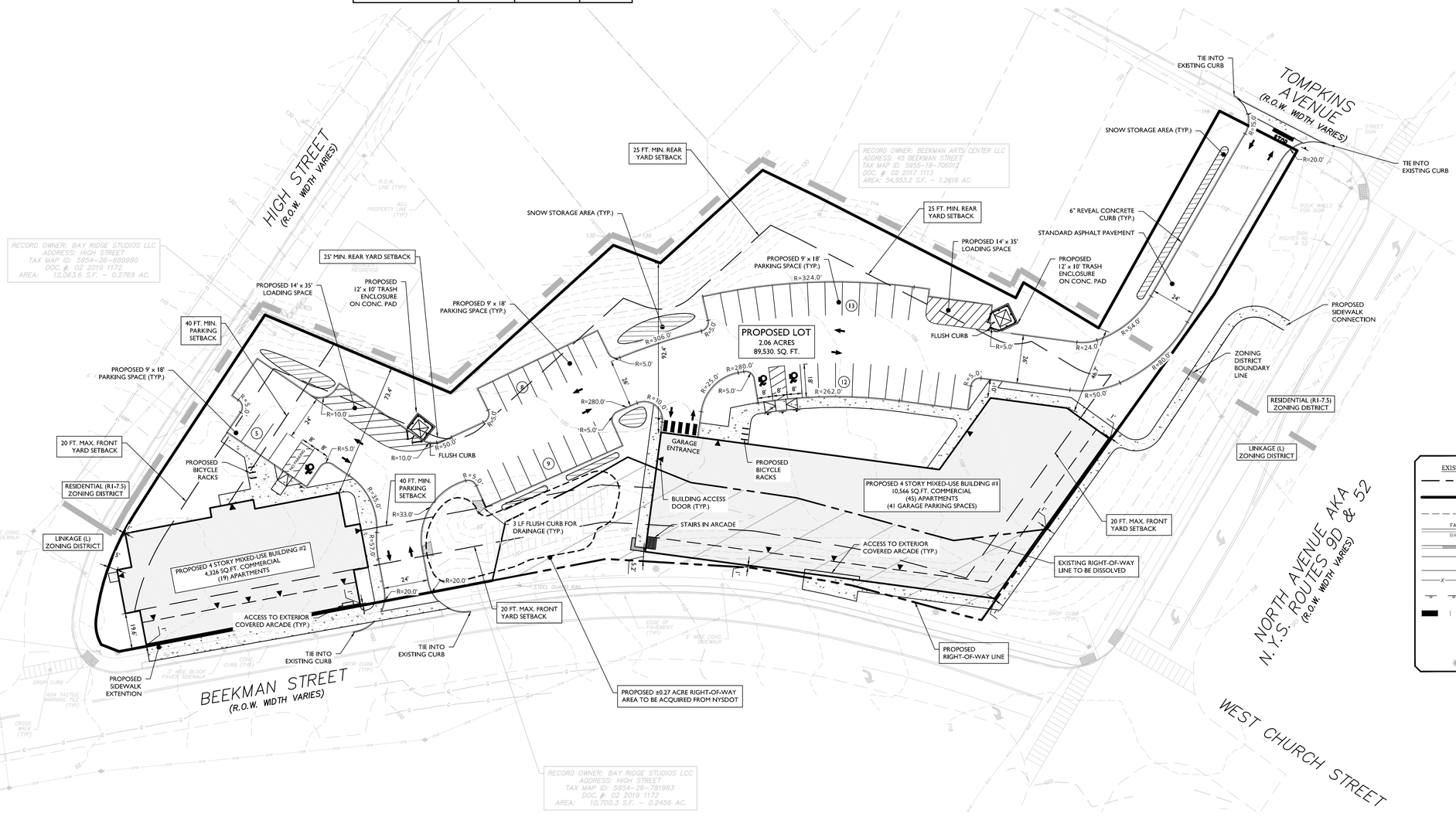
TAX LOTS:

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	

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-04-DIMENSION PLAN By: KYLE.SHALLOW

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1	09/25/24	KAS	REVISED PER PLANNING BOARD COMMENTS

Digitally signed by Justin E. Dates
Date: 2024.06.25 11:12:37-04'00'

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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
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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: 04 of 19

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%).

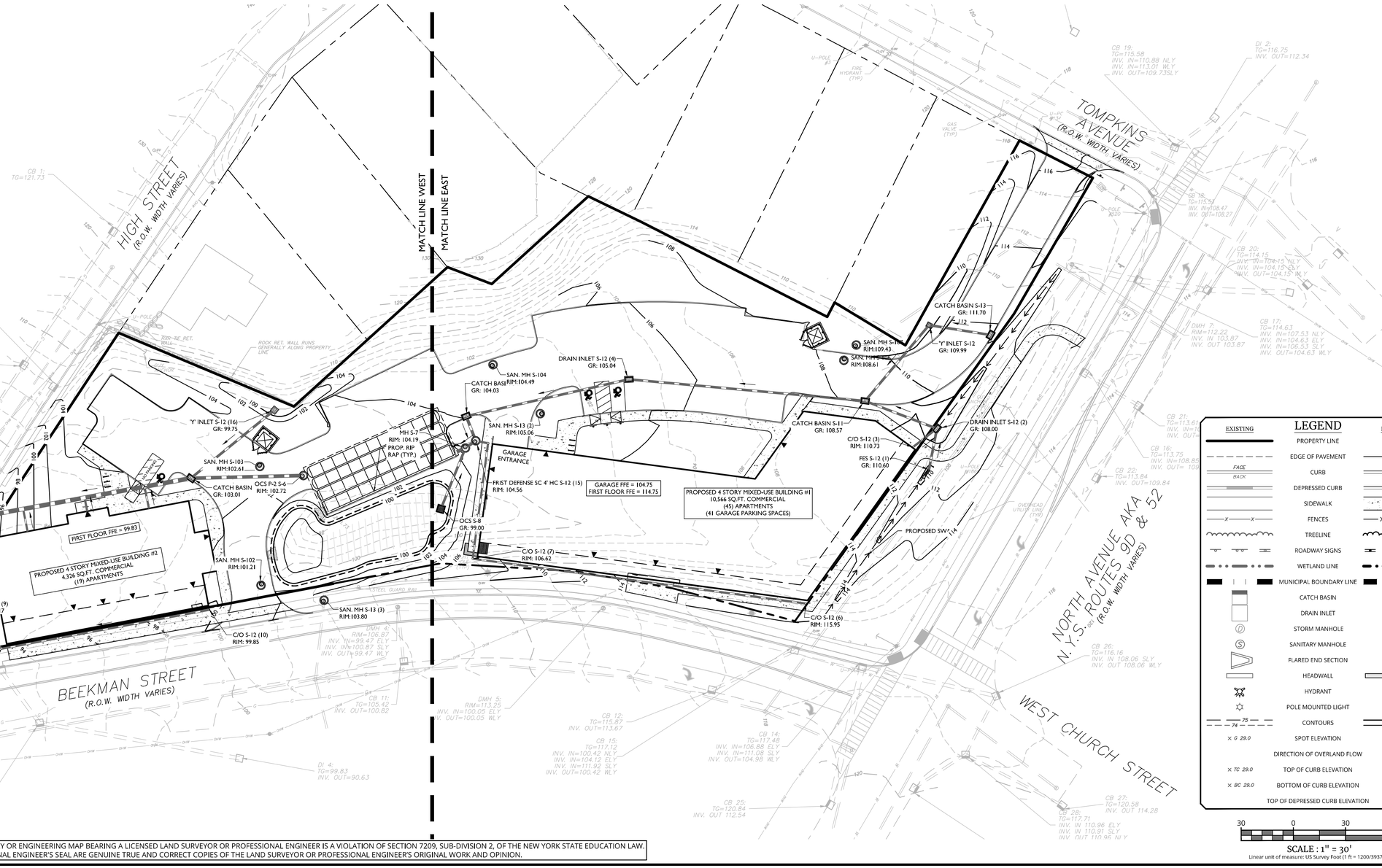
   C. LANDINGS -SHALL BE PROVIDED AT EACH END OF RAMPS, SHALL PROVIDE POSITIVE DRAINAGE, AND SHALL NOT EXCEED 1:48 (1/4" PER FOOT OR NOMINALLY 2.0%) IN ANY DIRECTION.

   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	CURB	FACE
BACK	DEPRESSED CURB	BACK
	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

30 0 30 60

SCALE : 1" = 30'

Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

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SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
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CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE

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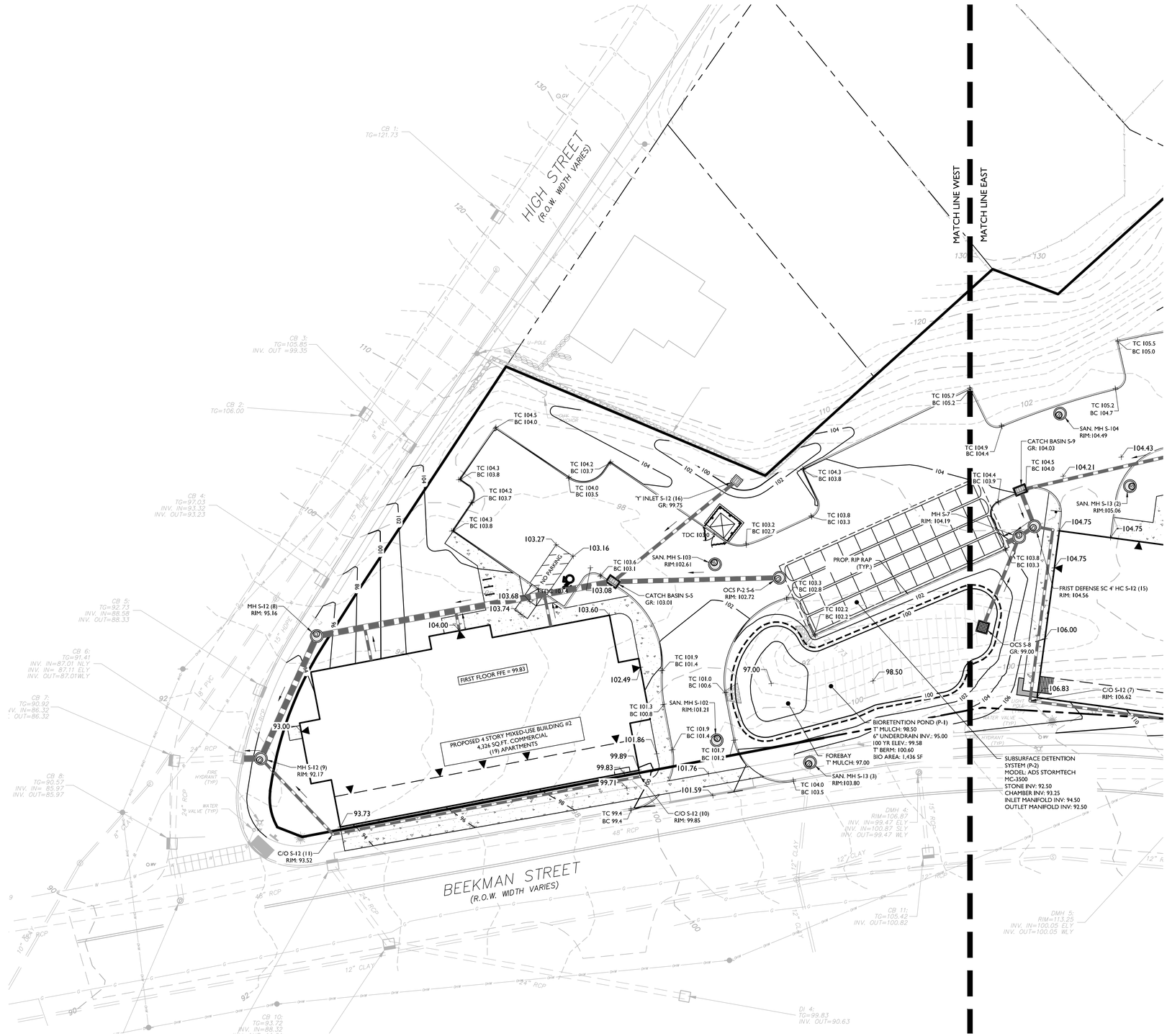
PROJECT NUMBER: 23010468A

DRAWING NAME: C-GRAD

SHEET TITLE: GRADING PLAN (OVERALL)

SHEET NUMBER: 05 of 19

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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)

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

679

2023\23010468A\Engineering\Site Plans\C-GRAD.dwg|C-06 GRADING A By: KNT, 5:44:11 PM

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Justin Eric Dates
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LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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

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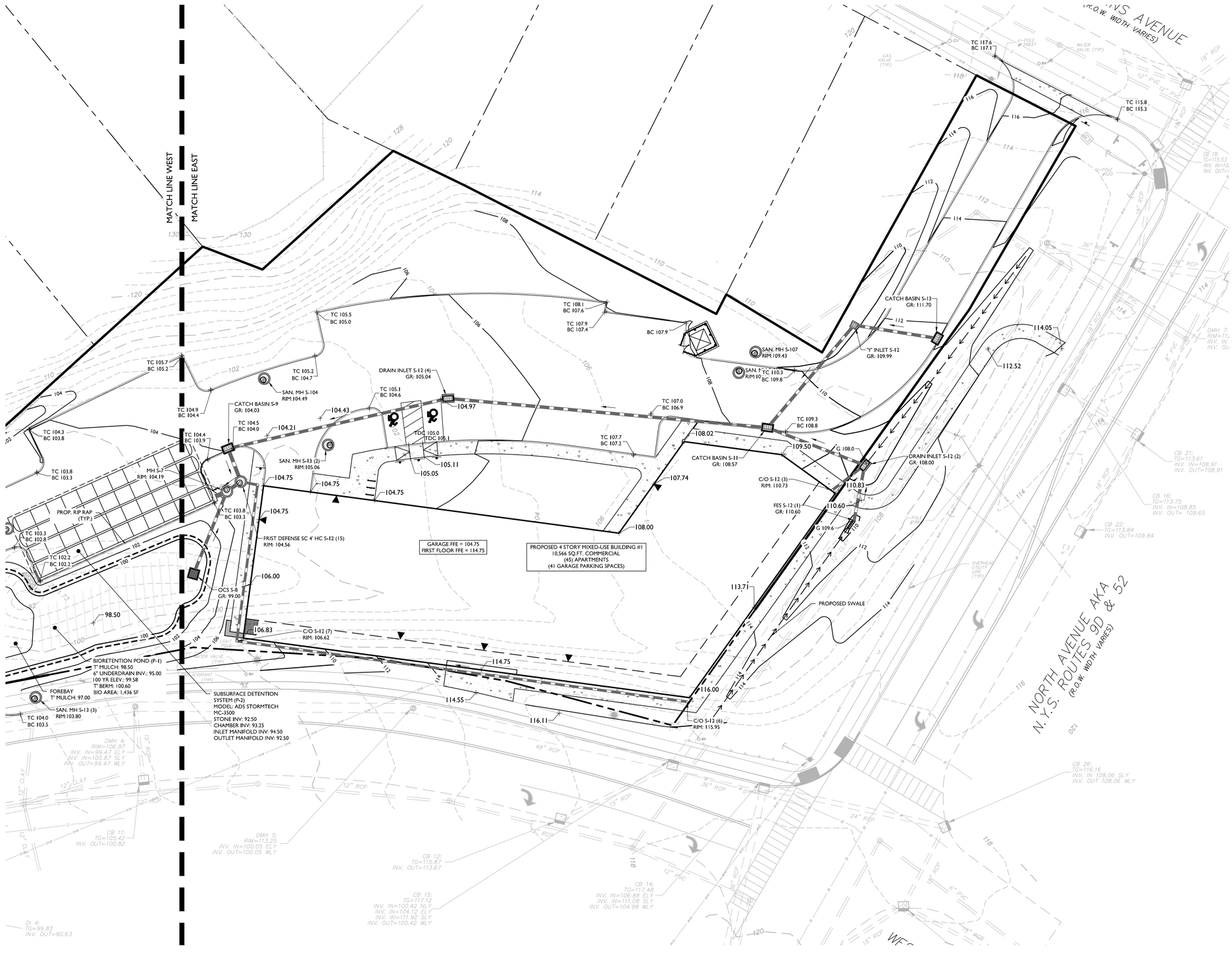
PROJECT NUMBER:	DRAWING NAME:
23010468A	C-GRAD

SHEET TITLE:

GRADING PLAN (WEST)

SHEET NUMBER:

06 of 19



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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'

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SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: G-GRAD

SHEET TITLE: GRADING PLAN (EAST)

SHEET NUMBER: 07 of 19

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

2023\23010468A\Engineering\Site Plans\C-GRAD.dwg|C-07-GRADING B By: KYLE SMALLOW

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.

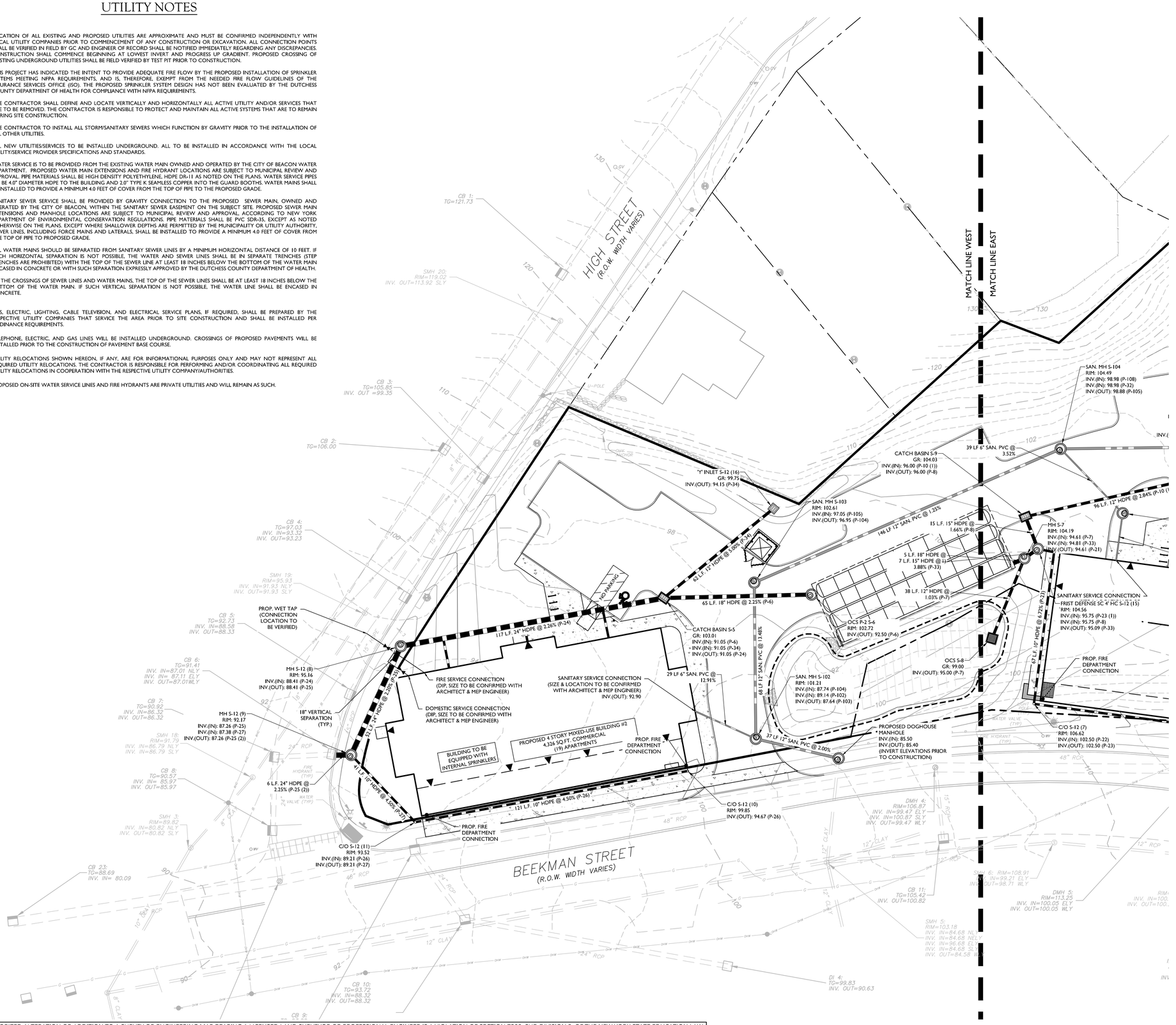
9. AT THE CROSSINGS OF SEWER LINES AND WATER MAINS, THE TOP OF THE SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE WATER LINE SHALL BE ENCASED IN CONCRETE.

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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	CATCH BASIN	
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D	STORM MANHOLE	D
S	SANITARY MANHOLE	S
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2023\23010468A\Engineering\Civil\e Plans\C-UTIL.dwg|C-08 UTILITY By: KATE SHALLOW

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COLLIERS ENGINEERING & DESIGN CT, P.C.

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. (CONS) BUSINESS AS MASER CONSULTING ENGINEERING & LAND SURVEYING

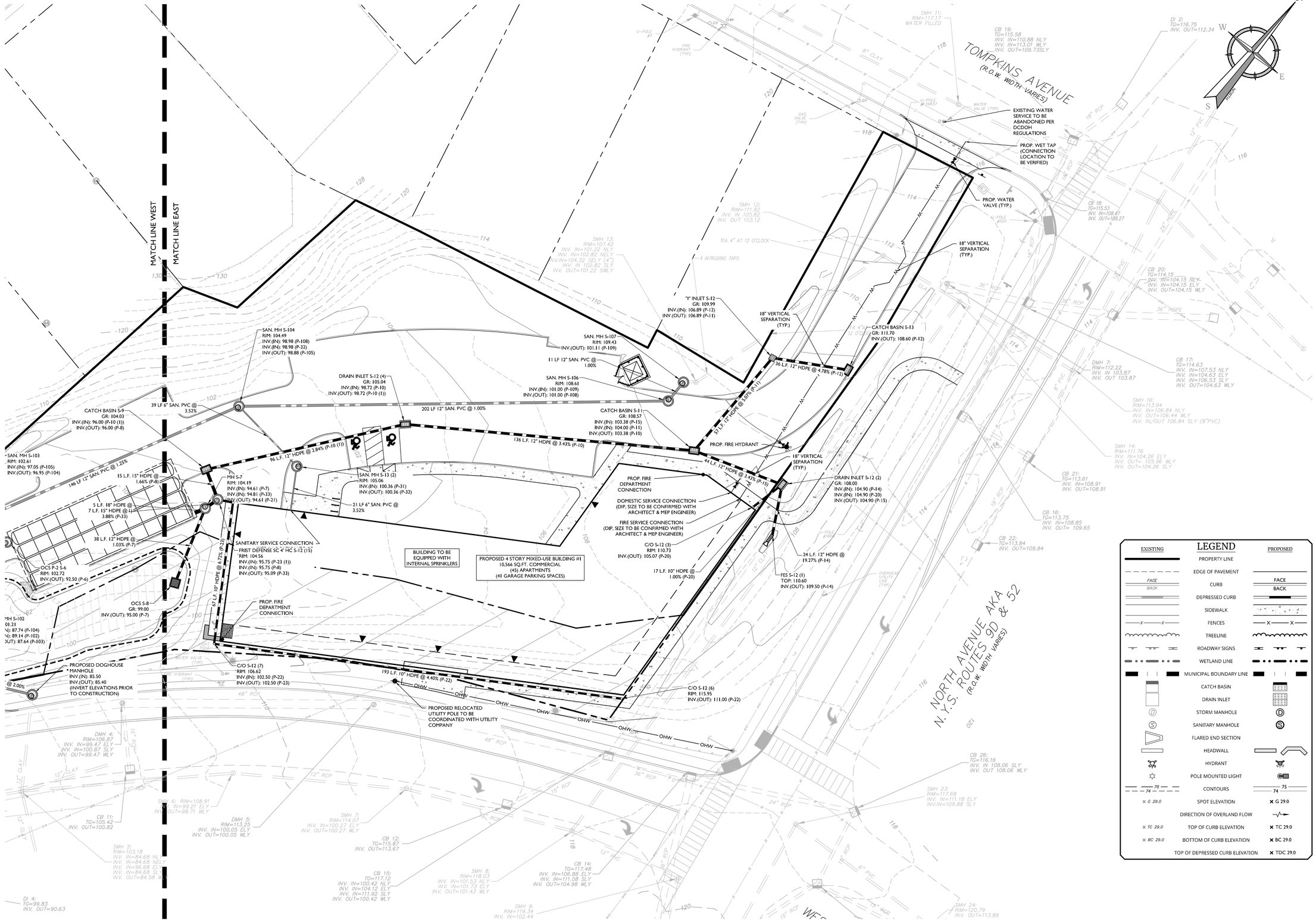
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-UTIL

SHEET TITLE: UTILITIES PLAN (WEST)

SHEET NUMBER: 08 of 19

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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2023\2301\dwg\Engineering\Site Plans\C-UTIL.dwg|C-09 UTILITY By: KYLE SHALLOW

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Doing Business as MASER CONSULTING

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FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION
1	06/25/24	KAS	REVISED PER PLANNING BOARD COMMENTS

Digitally signed by Justin E. Dates
Date: 2024.06.25 11:12:38-04'00'

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-UTIL

SHEET TITLE: UTILITIES PLAN (EAST)

SHEET NUMBER: 09 of 19

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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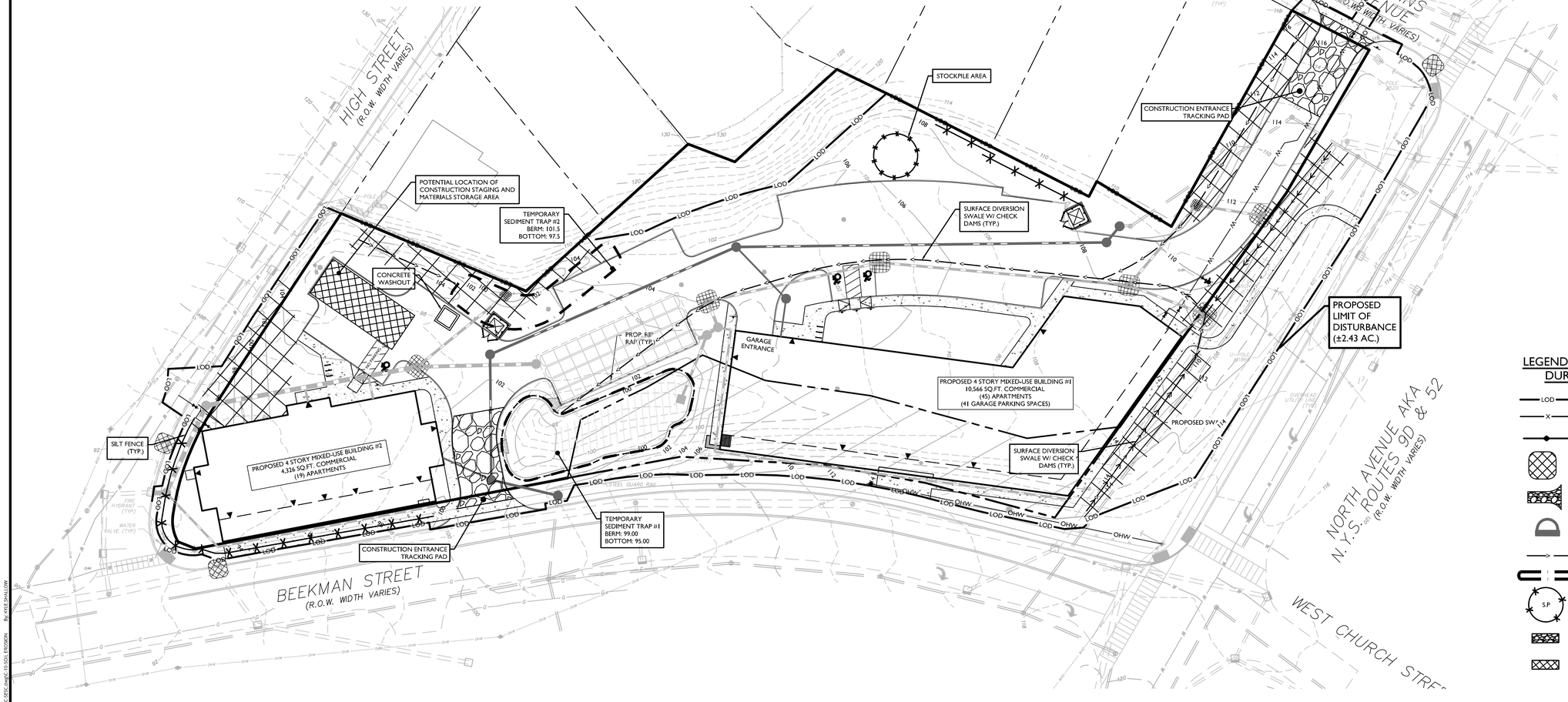
**FINAL STABILIZATION - MEANS THAT ALL SOIL DISTURBANCE ACTIVITIES HAVE CEASED AND A UNIFORM, PERENNIAL VEGETATIVE COVER WITH A DENSITY OF EIGHTY (80) PERCENT OVER THE ENTIRE PERVIOUS SURFACE HAS BEEN ESTABLISHED; OR OTHER EQUIVALENT STABILIZATION MEASURES, SUCH AS PERMANENT LANDSCAPE MULCHES, ROCK RIP-RAP 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-10-SOIL EROSION By: KYLE SHALLOW

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Justin Eric Dates
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LICENSE NUMBER: 001964-01
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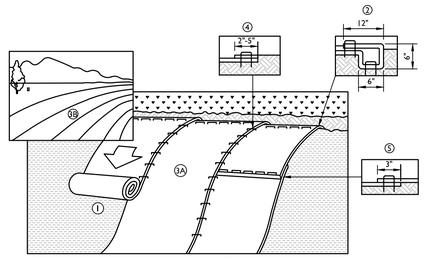
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PROJECT NUMBER: 23010468A
DRAWING NAME: C-SESC

SHEET TITLE: SOIL EROSION & SEDIMENT CONTROL PLAN

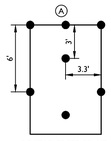
SHEET NUMBER: 10 of 19

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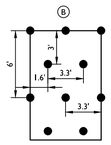


SLOPE INSTALLATION

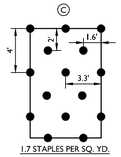
STAPLES PATTERN GUIDE
6.67' WIDE ROLLS



0.7 STAPLES PER SQ. YD.



1.15 STAPLES PER SQ. YD.



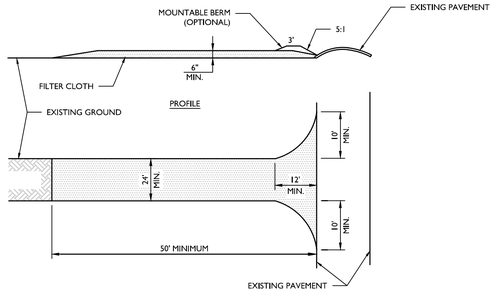
1.7 STAPLES PER SQ. YD.

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 RECP'S 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 RECPS.

EROSION MATTING (CURLEX ENFORCER I) DETAIL

NOT TO SCALE | MCNY-SOIL-EROS-2200 | 07/01/19



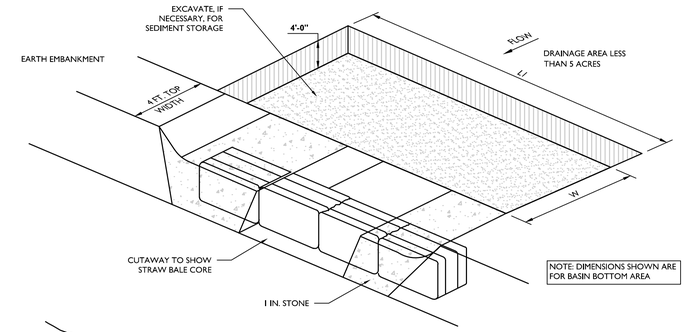
PLAN VIEW

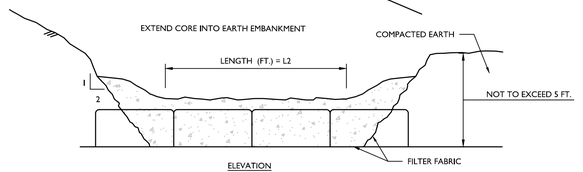
NOTES:

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

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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

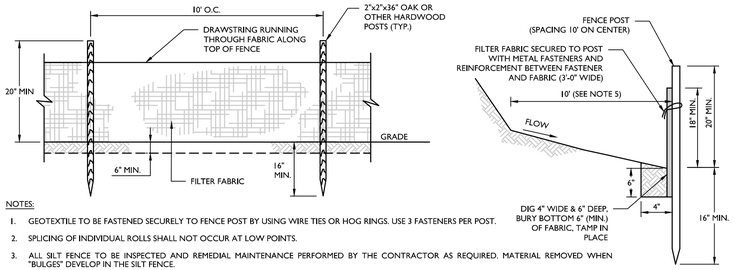
NOTE:

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

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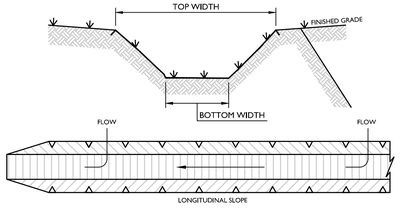


NOTES:

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

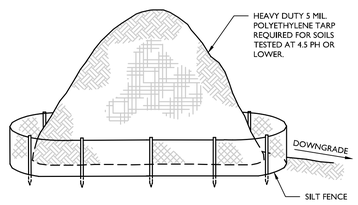
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PLAN

VEGETATED SWALE					
SWALE	BOTTOM WIDTH	SIDE SLOPE	LONGITUDINAL SLOPE	DEPTH	LENGTH
1R	2.0 FT	50%	2.00%		506'

VEGETATIVE SWALE DETAIL

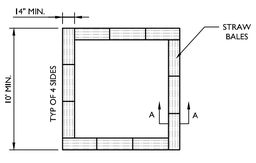


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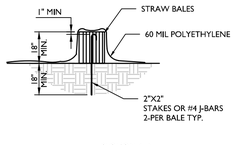
1. ALL STOCKPILES SHALL NOT TO BE LOCATED WITHIN 50 FEET OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY.

TOPSOIL STOCKPILE DETAIL

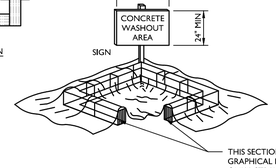
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BALE CONFIGURATION



SECTION A-A



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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2023\23010468A\Engineering\Site Plans\C-SESC.dwg|C-11-SOIL EROSION DETAILS By: LYLE SHALLOW

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Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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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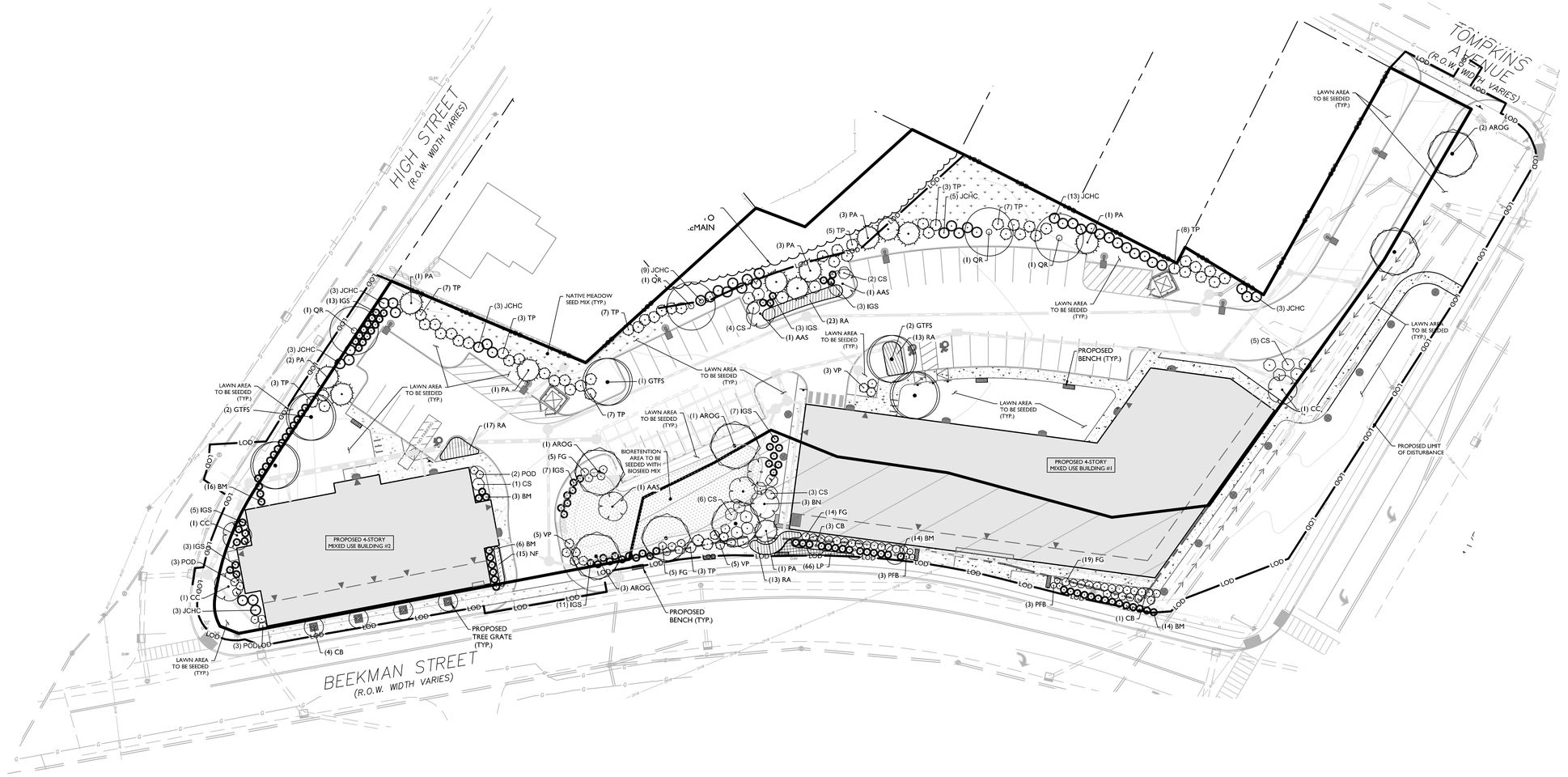
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DRAWING NAME: C-SESC

SHEET TITLE:
SOIL EROSION & SEDIMENT CONTROL DETAILS

SHEET NUMBER:
11 of 19

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION



SITE PLANTING SCHEDULE

	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	REMARKS
DECIDUOUS TREES						
AROG	7	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	4	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	12	Picea abies	Norway Spruce	B & B	6-8` Ht.	DENSE / TYP. SPECIES HABIT
ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	REMARKS
AAS	3	Amelanchier alnifolia	Serviceberry	B & B	6-7` Ht.	MULTISTEM / TYP. SPECIES HABIT
BN	3	Betula nigra	River Birch	B & B	6-7` Ht.	MULTISTEM / TYP. SPECIES HABIT
CB	8	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	21	Cornus sericea	Red Twig Dogwood	CONT	24" - 30"	TYPICAL SPECIES HABIT
BM	53	Buxus microphylla var. japonica 'Winter Gem'	Winter Gem Boxwood	CONT	18" - 24"	TYPICAL SPECIES HABIT
FG	43	Fothergilla gardenii	Dwarf Fothergilla	CONT	18" - 24"	TYPICAL SPECIES HABIT
IGS	52	Ilex glabra `Shamrock`	Inkberry	CONT	18" - 24"	TYPICAL SPECIES HABIT
JCHC	32	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	8	Physocarpus opulifolius 'Diabolo'	Diabolo Ninebark	CONT	24" - 30"	TYPICAL SPECIES HABIT
RA	66	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	CONT	18" - 24" SPREAD	TYPICAL SPECIES HABIT, 3.5' O.C.
TP	53	Thuja x plicata 'Green Giant'	Green Giant Arborvitae	CONT	5-6` Ht.	TYPICAL SPECIES HABIT
VP	13	Viburnum prunifolium	Blackhaw Viburnum	CONT	24" - 30"	TYPICAL SPECIES HABIT
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	
LP	66	Liriope platyphylla	Liriope Grass	SPS	18" o.c.	
NF	15	Nepeta x faassenii	Catmint	1 gal.	24" o.c.	

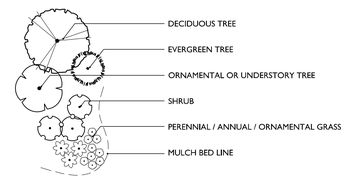
PLAN NOTE

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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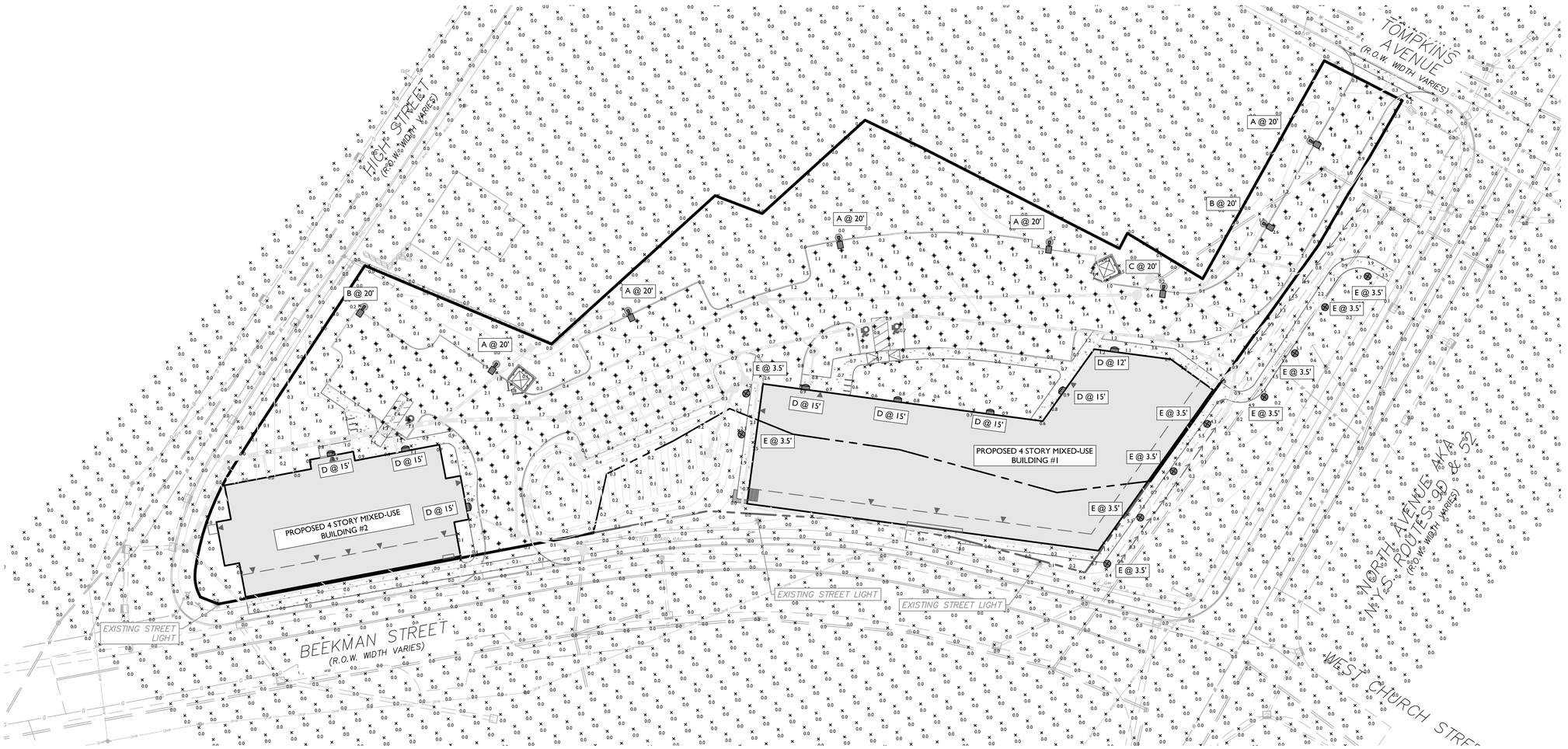
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DRAWING NAME: C-LAND

SHEET TITLE: LANDSCAPE PLAN

SHEET NUMBER: 12 of 19

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LUMINAIRE SCHEDULE

KEY	QTY.	DESCRIPTION	ARRANGEMENT	MTG. HT.	LUMENS/LAMP	COLOR TEMPERATURE	CRI	LLF	CATALOG #
A	5	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	20'	7,283	3000K	80	0.9	DSX0 LED-P4-30K-80CRI-BLC4-MVOLT-SPA-DBLXD-PER5
B	2	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	20'	7,116	3000K	80	0.9	DSX0 LED-P4-30K-80CRI-LCCO-MVOLT-SPA-DBLXD-PER5
C	1	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	20'	7,116	3000K	80	0.9	DSX0 LED-P4-30K-80CRI-RCCO-MVOLT-SPA-DBLXD-PER5
D	8	LITHONIA LIGHTING D-SERIES SIZE 1 LED WALL LUMINAIRE	SINGLE (WALL PACK)	12',15'	1,357	3000K	80	0.9	DSXW1 LED-10C-350-30K-T4M-MVOLT-PE-DBLXD
E	10	HYDREL IMPACT RESISTANT ROUND BOLLARD FLAT TOP	SINGLE (BOLLARD)	3.5'	1,549	3000K	80	0.9	3110C-H36-8COB-30K-MVOLT-FT-LP-BL

CALCULATION SUMMARY

DESCRIPTION	CALC. TYPE	UNITS	AVG.	MAX.	MIN.	AVG. / MIN.
PARKING, DRIVE & SIDEWALK	ILLUMINANCE	FC	1.1	6.7	0.3	3.6:1

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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Date: 2024.06.25 11:12:38-04'00'

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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

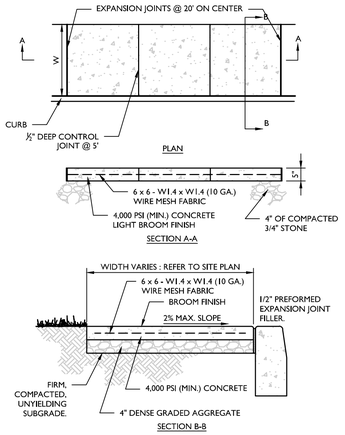
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	XXXXXX	XXXXXX

PROJECT NUMBER: 23010468A
DRAWING NAME: C-LGHT

SHEET TITLE: LIGHTING PLAN

SHEET NUMBER: 13 of 19

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

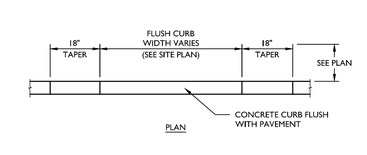


NOTES:

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.

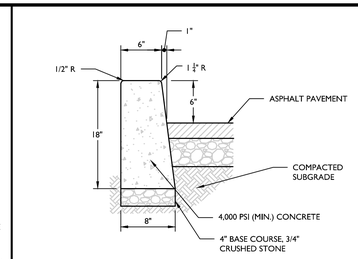
REINFORCED CONCRETE SIDEWALK (NEXT TO CURB) DETAIL

NOT TO SCALE | MCNY-SITE-PVMT-1800 | 07/01/19



CONCRETE FLUSH CURB DETAIL

NOT TO SCALE | MCNY-SITE-CURB-1300 | 07/01/19

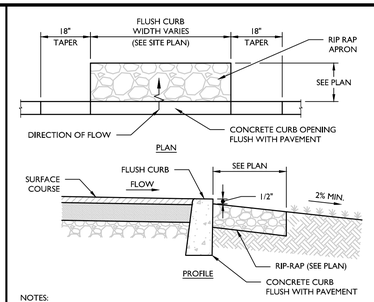


NOTES:

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

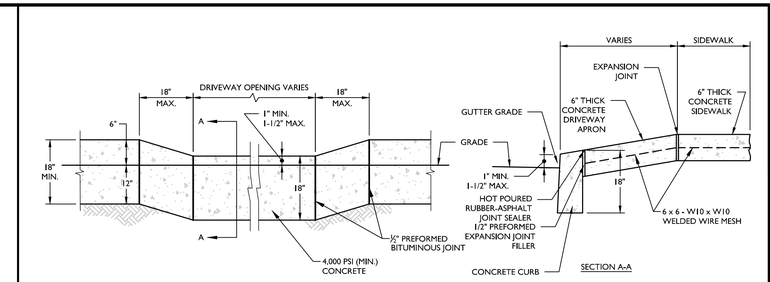


NOTES:

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

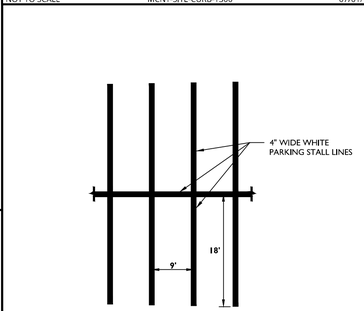


NOTES:

1. DEPRESSED VERTICAL CURB AT DRIVEWAY AND RAMP AREAS SHALL BE FULL DEPTH OF 18".

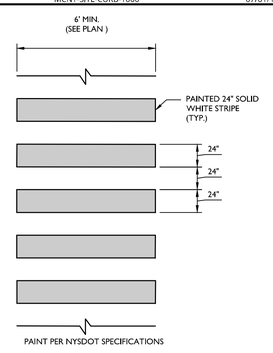
DEPRESSED CONCRETE CURB AT DRIVEWAY DETAIL

NOT TO SCALE | MCNY-SITE-CURB-1700 | 07/01/19



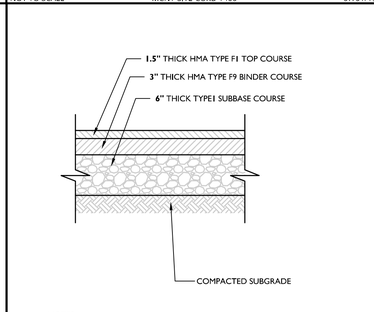
TYPICAL PARKING STALL STRIPING DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-1000 | 07/01/19



PEDESTRIAN CROSSWALK DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-1401 | 07/01/19

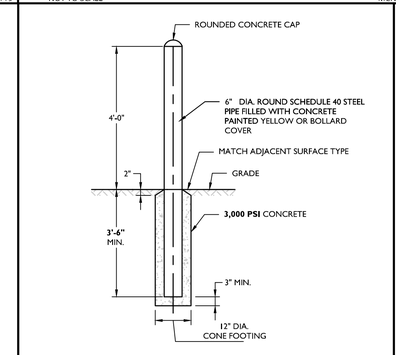


NOTES:

1. PAVEMENT TYPES TO BE IN ACCORDANCE WITH CURRENT NYSDOT STANDARDS AND SPECIFICATIONS.

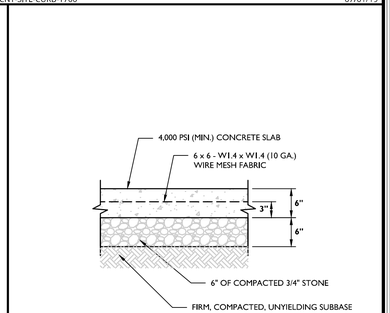
STANDARD ASPHALT PAVEMENT DETAIL

NOT TO SCALE | MCNY-SITE-PVMT-1000 | 07/01/19



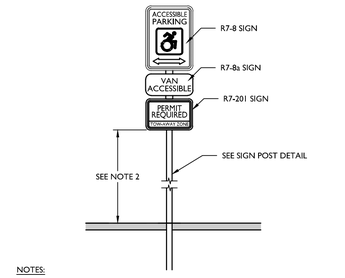
BOLLARD DETAIL

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

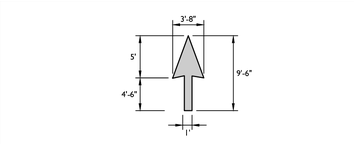


NOTES:

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.

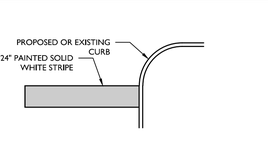
ACCESSIBLE PARKING SIGN DETAIL

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

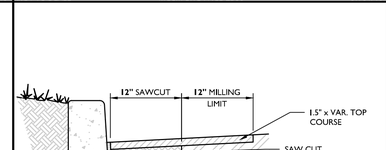


NOTES:

1. 4.0' ON CENTER
2. 4" YELLOW AT 45 DEGREES
3. WIDTH TO BE CONFIRMED WITH LOCAL JURISDICTIONAL ENTITY.

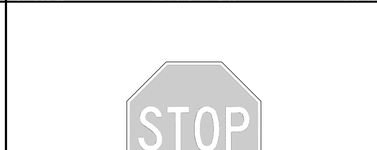
FIRE ZONE / LOADING AREA STRIPING DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-2100 | 07/01/19



SAWCUT AND PAVEMENT RESTORATION DETAIL

NOT TO SCALE | MCNY-SITE-PVMT-2800 | 07/01/19

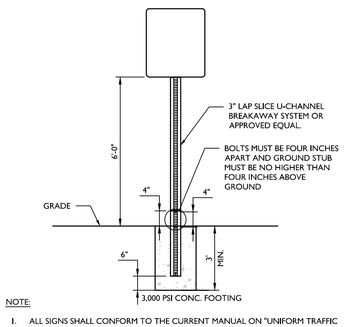


30" x 30"

COLORS:
LEGEND = WHITE (RETROREFLECTIVE)
BACKGROUND = RED (RETROREFLECTIVE)

R1-1 SIGN DETAIL

NOT TO SCALE | MCCM-SIGN-REGU-R1-1 | 12/01/20

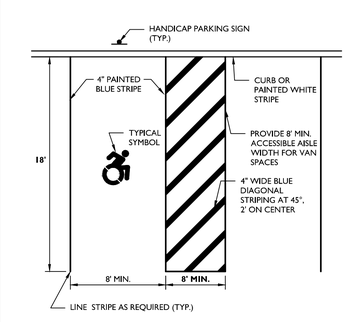


NOTE:

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.

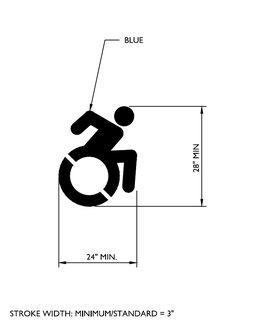
BREAKAWAY SIGN POST DETAIL

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



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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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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REV	DATE	DRAWN BY	DESCRIPTION
1	05/25/24	KAS	REVISED PER PLANNING BOARD COMMENTS



Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

SITE PLAN
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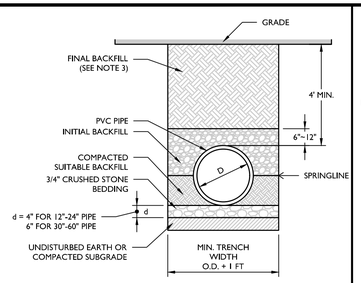
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AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-DTLS

SHEET TITLE: CONSTRUCTION DETAILS

SHEET NUMBER: 14 of 19

2023\23010468A\Engineering\Cone Plans\C-DTLS.dwg|C-14-DETAILS By: KYLE.SHALLOW

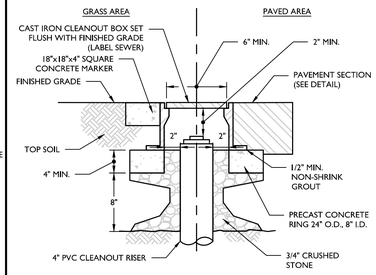


NOTES:

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

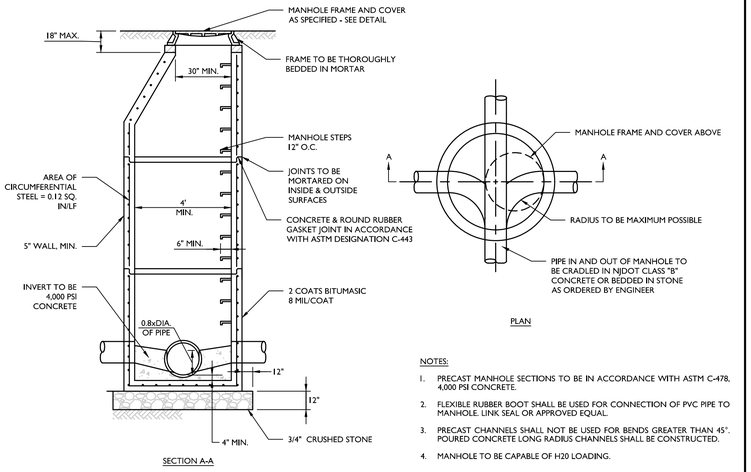


NOTES

1. 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

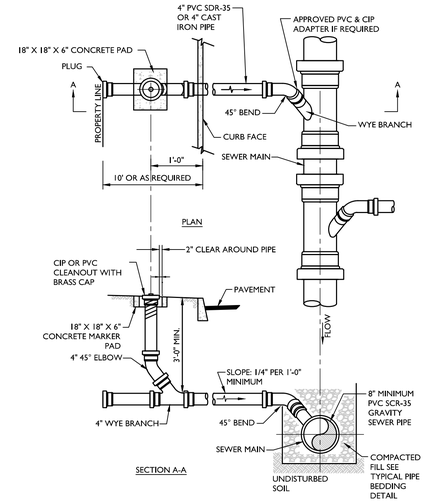


NOTES:

1. 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.

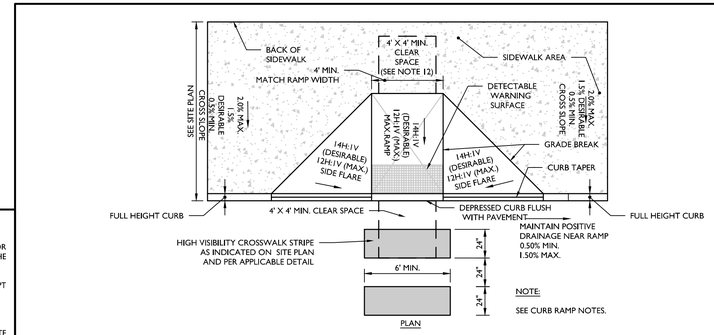
SANITARY PRECAST MANHOLE DETAIL

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:

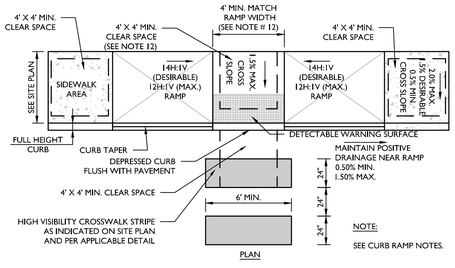
1. CONTRACTOR SHALL PREPARE SHOP DRAWINGS OF EACH CURB RAMP FOR SUBMISSION AND APPROVAL OF THE UNDERSIGNED PROFESSIONAL AND THE MUNICIPAL, COUNTY, STATE OR OTHER AGENCY'S ENGINEER HAVING JURISDICTION.
2. LANDING AREA, APPROACH SIDEWALK TRANSITIONS AND CURB RAMP SHALL BE KEPT CLEAR OF OBSTRUCTIONS.
3. CURB AT RAMP OPENING (FLUSH CURB) TO BE FLUSH WITH ROADWAY PAVEMENT.
4. CROSSWALKS AND PAVEMENT MARKINGS TO BE INSTALLED AS DENOTED ON SITE PLAN.
5. MAXIMUM RAMP SLOPE MAY BE 12H:1V UPON APPROVAL OF ENGINEER, RAMP SLOPES SHOWN ARE THE PREFERRED SLOPE. SIDE FLARE SLOPES MAY BE 10H:1V UPON APPROVAL OF THE ENGINEER.
6. MINIMUM RAMP CROSS-SLOPE SHALL BE 0.50%. THE MAXIMUM RAMP CROSS-SLOPE MAY BE 2.00% UPON APPROVAL OF THE ENGINEER. CROSS-SLOPES SHOWN IN THE DETAILS ARE THE PREFERRED SLOPES TO MAINTAIN A LEVEL OF CONSTRUCTION TOLERANCE.
7. ACCESSIBLE RAMPS SHALL BE INSTALLED PURSUANT WITH THE CURRENT UNITED STATES ACCESS BOARD ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES AND THE ADA STANDARDS FOR ACCESSIBLE DESIGN AS PUBLISHED BY THE UNITED STATES DEPARTMENT OF JUSTICE AND OTHER APPLICABLE LOCAL AND STATE STANDARDS IN EFFECT AT THE DATE OF CONSTRUCTION.
8. DEVIATIONS FROM THE CURB RAMP DETAILS REQUIRE WRITTEN APPROVAL OF THE UNDERSIGNED PROFESSIONAL AND THE MUNICIPAL, COUNTY, STATE OR OTHER AGENCY'S ENGINEER HAVING JURISDICTION.
9. THE RAMP SURFACE SHALL HAVE A NON-SLIP, HAND BROOMED FINISH.
10. CONCRETE EXPANSION JOINTS SHALL HAVE A FIRM SURFACE WITH 1/4" BEVELED CONCRETE EDGES. THE JOINT SURFACE SHALL NOT BE MORE THAN 1/4" BELOW THE ADJOINING CONCRETE SURFACE.
11. CURB RAMP MUST BE WHOLLY CONTAINED WITHIN THE CROSSWALK CROSSING.
12. THE CLEAR SPACE SHALL BE INCREASED TO 5 FEET WHERE THE TURNING SPACE IS CONSTRAINED AT THE BACK OF THE SIDEWALK.
13. THE MAXIMUM SEPARATION BETWEEN THE BACK OF CURB AND DETECTABLE WARNING SURFACE SHALL NOT EXCEED 5 FEET. THE MAXIMUM SEPARATION AREA MAY BE WITHIN THE 4' X 4' CLEAR SPACE.
14. SEE SEPARATE DETAILS FOR "DETECTABLE WARNING SURFACE" AND "CURB RAMP SECTIONS".
15. WHERE SIDE FLARES ARE NOT REQUIRED, PROVIDE AN 18" CURB TAPER TO THE FLUSH CURB.
16. ALL CURB RAMP FLUSH CURB SHALL BE MADE WITH CONCRETE CURB CRADLE. REGARDLESS OF THE CURB MATERIAL USED THROUGHOUT THE SITE.

CURB RAMP NOTES

MCNY-SITE-HADA-2500 | 07/01/19

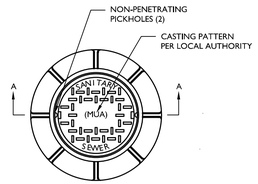
CURB RAMP TYPE 1 DETAIL

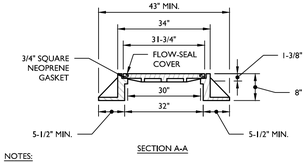
NOT TO SCALE | MCNY-SITE-HADA-1000 | 07/01/19



CURB RAMP TYPE 7 DETAIL

NOT TO SCALE | MCNY-SITE-HADA-1600 | 07/01/19



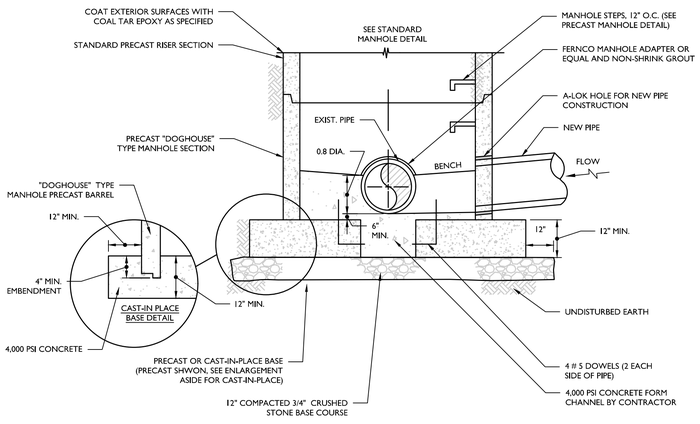


NOTES:

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.

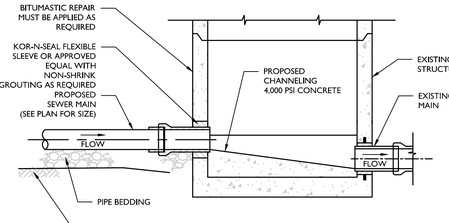
SANITARY MANHOLE FRAME AND COVER DETAIL

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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20232v2501668AEngineering\Site Plans\C-DTLS.dwg/C-15-DETAILS By: KYLE SHALLOW

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1	06/25/24	KAS	REVISED PER PLANNING BOARD COMMENTS

Digitally signed by Justin E. Dates
Date: 2024.06.25 11:32:38-04'00'

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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
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New Windsor, NY 12553
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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 19

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

WATER NOTES:

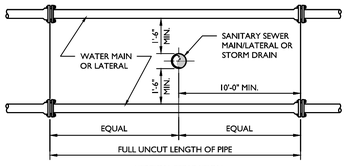
1. ALL METHODS, MATERIALS, FITTINGS, DEVICES, DIMENSIONAL REQUIREMENTS AND PROCEDURES NECESSARY TO COMPLETE THE WORK SHOWN HEREON SHALL MEET THE APPROPRIATE CURRENT AWWA SPECIFICATIONS IN EFFECT AS WELL AS ALL REQUIREMENTS DEEMED APPLICABLE BY THE MUNICIPALITY OR ANY OTHER GOVERNMENTAL BODY HAVING JURISDICTION OVER SAID WORK.
2. ALL WATER MAIN PIPE SHALL BE DUCTILE IRON (DIP).
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", 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 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 REMOVAL 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

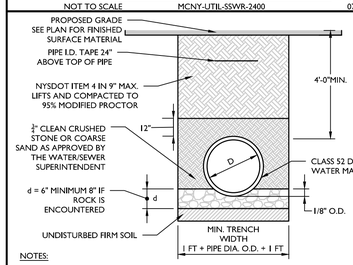


HORIZONTAL SEPARATION

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

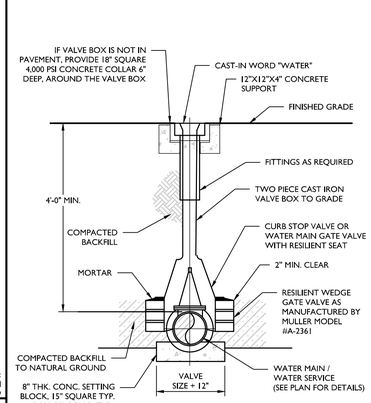
PIPE SIZE IN INCHES	NUMBER AND SIZE OF RODS REQUIRED AND PIPE LENGTH IN FEET TO BE RESTRAINED								
	90° TEE OR DEAD END PLUG			45° BEND			22½° BEND		
	No.	SIZE	L*	No.	SIZE	L*	No.	SIZE	L*
4	2	¾"	28'	2	¾"	6'	2	¾"	3'
6	2	¾"	40'	2	¾"	8'	2	¾"	4'
8	4 or 2	¾" or ⅞"	52'	2	¾"	10'	2	¾"	5'
10	4	¾"	63'	2	¾"	12'	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

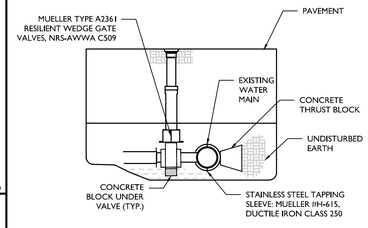
NOT TO SCALE HDPE .PVP JOINT RESTRAINT 03/23/23



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

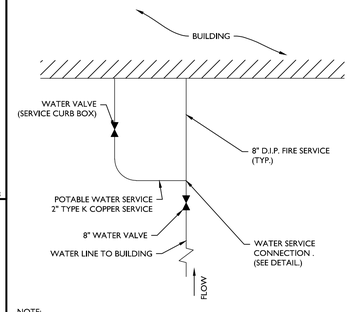
NOT TO SCALE MCNY-UTIL-WATR-1600 MOD: 09/09/22 07/01/19



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

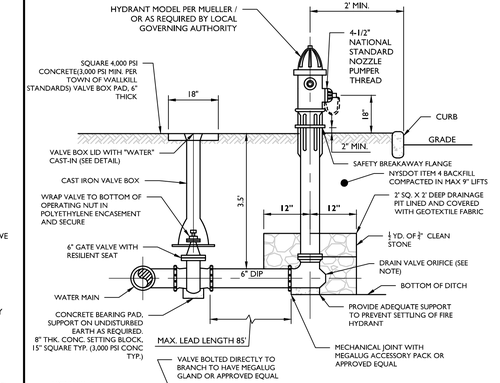
NOT TO SCALE WET TAP 07/01/19



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

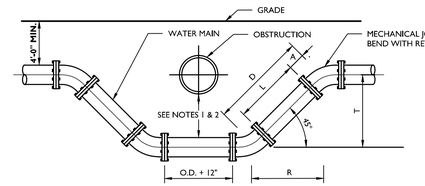
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NOTES:
1. HYDRANT SHALL BE MUELLER SUPER CENTURION MODEL A-423 INCLUDING INTEGRAL MULLER "STORZ" CONNECTION ON THE NOZZLE. DESIGN WITH THE FOLLOWING SPECIFICATIONS.
   A. SAFETY COUPLED STANDPIPE.
   B. 6" MECHANICAL JOINT INLET CONNECTION
   C. TWO 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 5 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.S92 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

NOT TO SCALE MCNY-UTIL-WATR-1000 MOD: 01/09/23 07/01/19



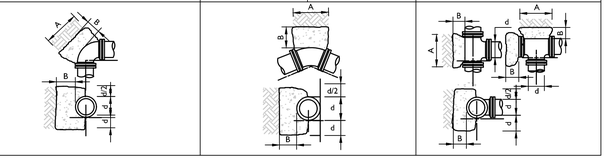
MECHANICAL JOINTS			
ANGLE	D =	R =	L =
45°	T x 1.414	T x 1.000	D-2A
22.5°	T x 2.613	T x 2.414	D-2A
11.25°	T x 5.126	T x 5.027	D-2A

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

REV	DATE	DRAWN BY	DESCRIPTION
1	06/25/24	KAS	REVISED PER PLANNING BOARD COMMENTS

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Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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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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 19

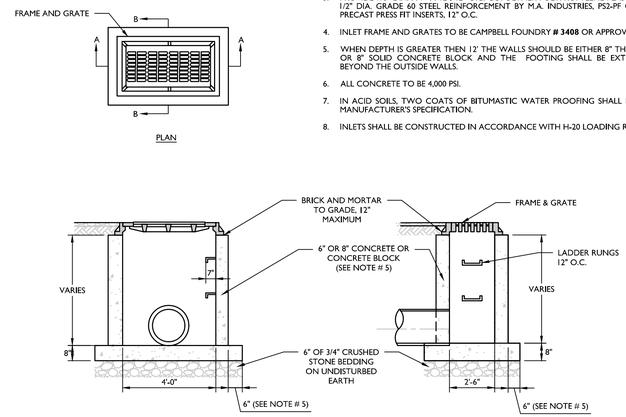
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2023\23010468A\Engineering\Site Plans\C-DTLS.dwg|C-16 DETAILS By: KYLE SHALLOW

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.

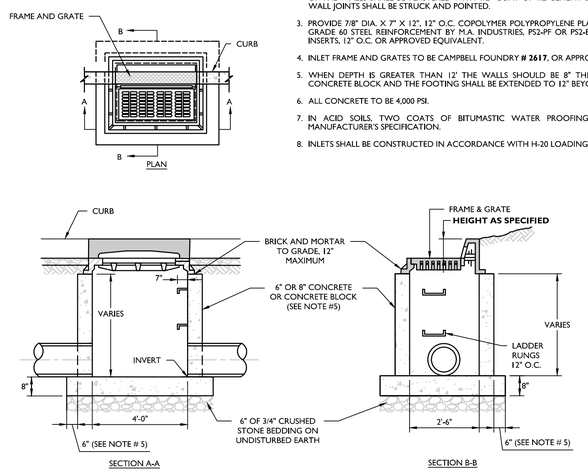


SINGLE DRAIN INLET DETAIL

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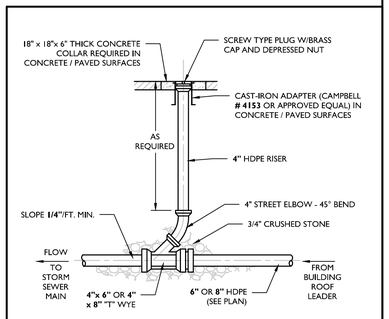
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3. PROVIDE 7/8" DIA. X 7" X 12", 12" O.C. COPOLYMER POLYPROPYLENE PLASTIC STEPS WITH 1/2" DIA. GRADE 60 STEEL REINFORCEMENT BY M.A. INDUSTRIES, PS2-PF OR PS2-B WITH PRECAST PRESS FIT INSERTS, 12" O.C. OR APPROVED EQUIVALENT.
4. INLET FRAME AND GRATES 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.



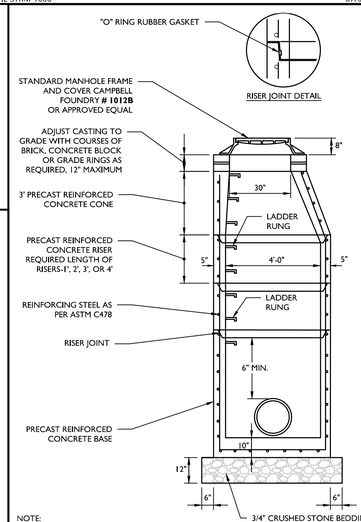
SINGLE CATCH BASIN DETAIL

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ROOF LEADER CLEANOUT DETAIL

NOT TO SCALE | MCNY-UTIL-STRM-1900 | 07/01/19

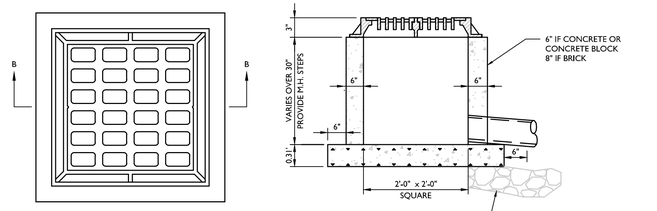


NOTE:

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

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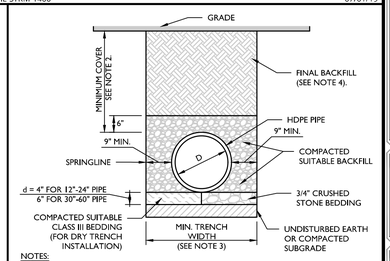


GENERAL CONSTRUCTION NOTES:

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

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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

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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

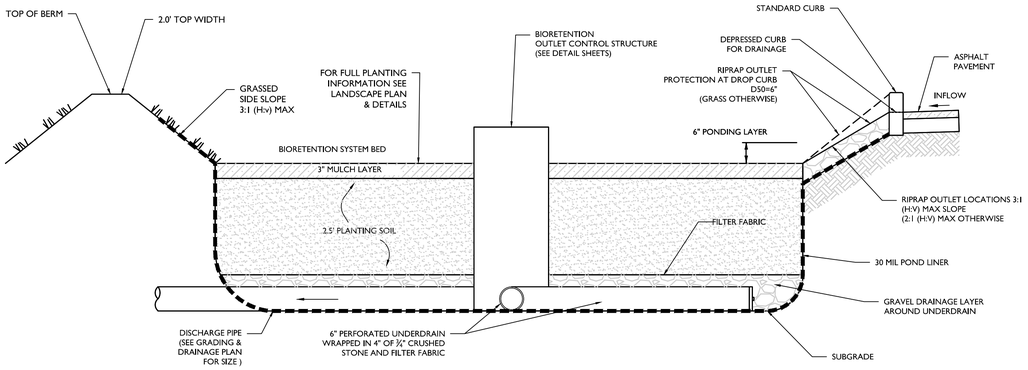
SHEET NUMBER: 17 of 19

2023\23010468A\Engineering\Site Plans\C-DTLS.dwg\C-17 DETAILS By:KYLE.SHALLOW

BIORETENTION ELEVATIONS					
SYSTEM	OUTLET NAME	OUTLET SIZE	BED ELEVATION	100 YR PEAK ELEVATION	TOP OF BERM ELEVATION
P-1	OCS S-8	4'X4'	98.50	99.58	100.60

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:

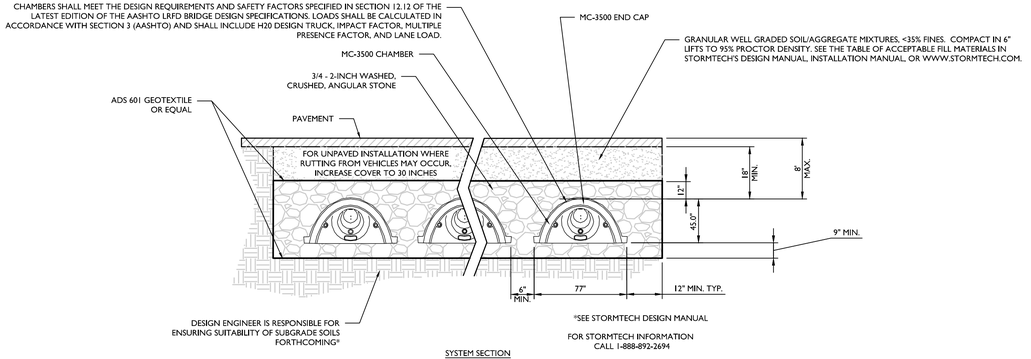


NOTES:

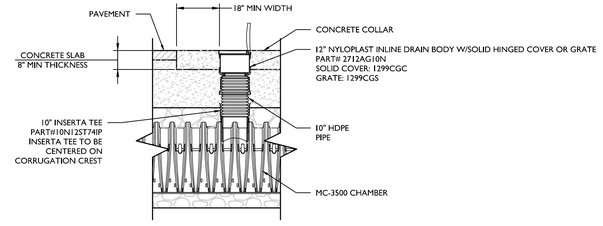
1. SEE PLAN FOR DROP CURB LOCATIONS AND BIORETENTION AREA CONFIGURATION.
2. PLANTING SOIL TO BE IN ACCORDANCE WITH NEW YORK STATE STANDARDS AND SPECIFICATIONS FOUND WITHIN THE PROJECT SWPPP.

BIORETENTION SYSTEM CROSS SECTION DETAIL

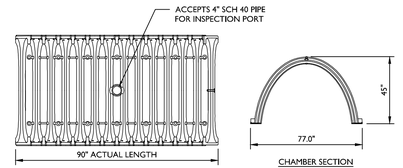
NOT TO SCALE | MCNY-UTIL-STMW-24001 | 07/01/19

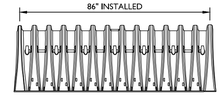


SYSTEM SECTION



STORMTECH STORM CHAMBER INSPECTION PORT DETAIL





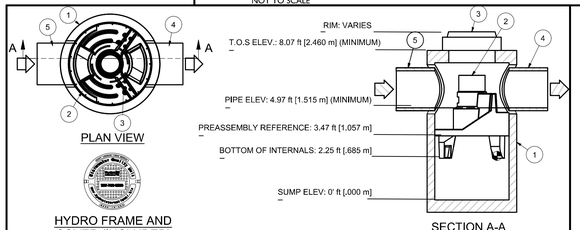
STORMTECH MC-3500 STORM CHAMBER DETAIL
N.T.S.

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



HYDRO FRAME AND COVER (INCLUDED)
GRADE RINGS BY OTHERS AS REQUIRED

NOTE: ADDITIONAL HEIGHT MAY BE REQUIRED DEPENDING ON PIPE SIZE

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

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AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-DTLS

SHEET TITLE: CONSTRUCTION DETAILS

SHEET NUMBER: 18 of 19

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

2023\23010468A\Engineering\Dgn\e Plans\C-DTLS.dwg|C-18.DETAILS By: KYLE.SHALLOW

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.

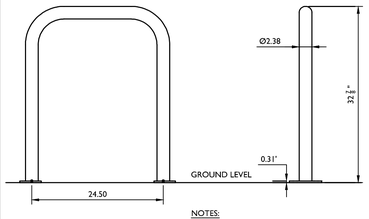
6. PLANTING MUST BE GUARANTEED FOR TWO FULL GROWING SEASONS FROM THE TIME OF FINAL ACCEPTANCE BY THE LANDSCAPE CONSULTANT. CONTRACTOR SHALL REMOVE ALL WRAPPING AT THE END OF GUARANTEE PERIOD OR SOONER PER PROJECT LANDSCAPE ARCHITECT.

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

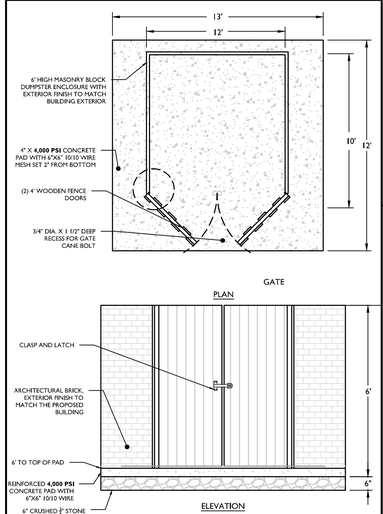


NOTES:

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, 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 (CHAMAECRESTA 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.

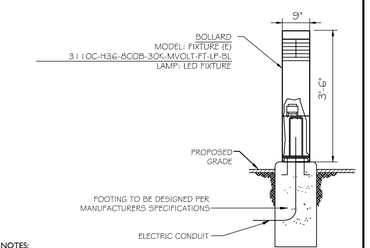
6. AS NEEDED, WORK LIME AND FERTILIZER INTO SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. 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

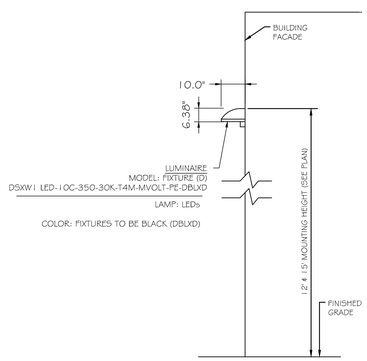


NOTES:

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

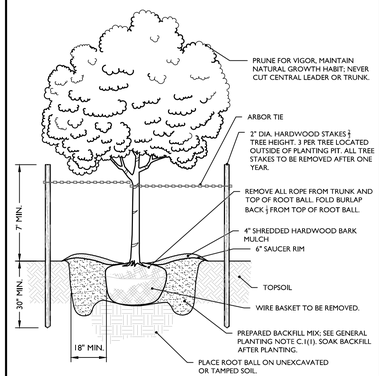


NOTES:

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

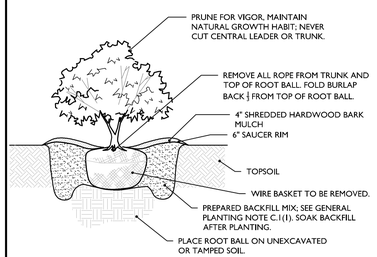


NOTES:

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

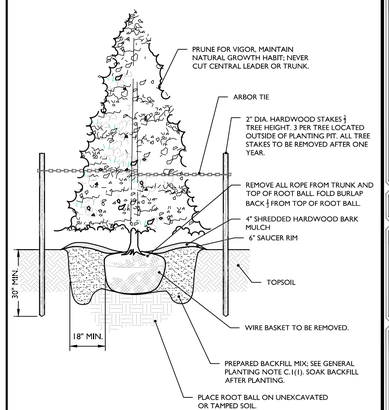


NOTES:

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

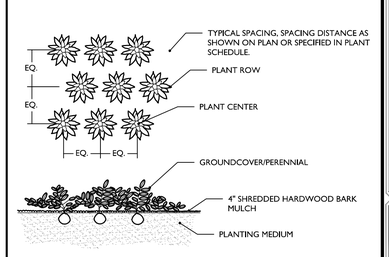


NOTES:

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

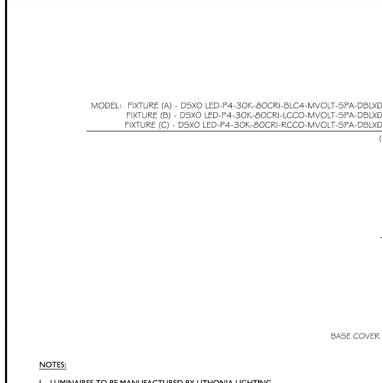


NOTES:

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.

2023\23010468A\Engineering\Site Plans\C-DTLS.dwg|C-16 DETAILS By: KYLE ESHALLOW

Colliers Engineering & Design

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REV	DATE	DRAWN BY	DESCRIPTION
1	05/21/24	KAS	REVISED PER PLANNING BOARD COMMENTS

Digitally signed by Justin E. Dates
Date: 2024.06.25 11:12:39-04'00'

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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

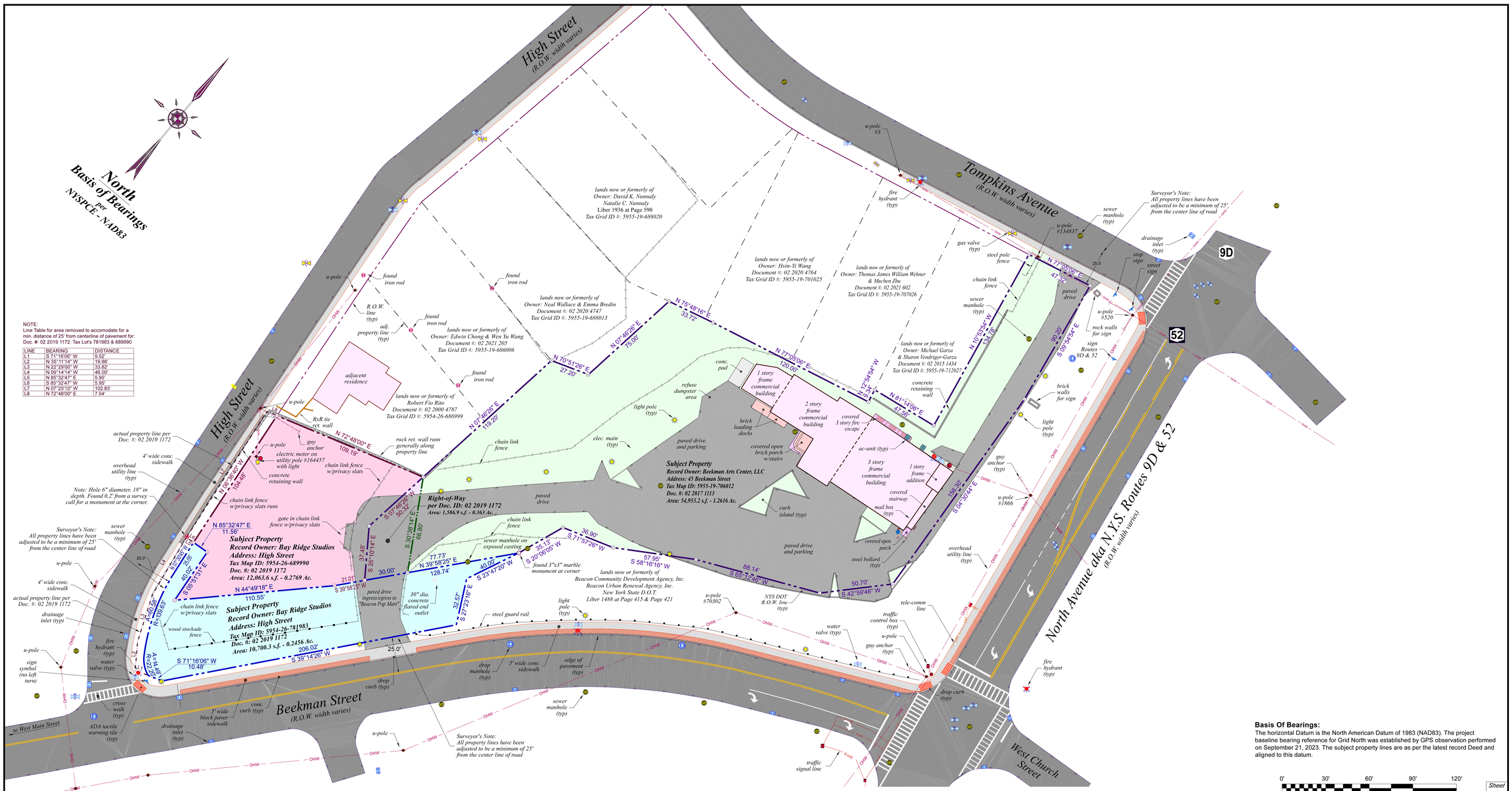
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-DTLS

SHEET TITLE: CONSTRUCTION DETAILS

SHEET NUMBER: 19 of 19

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION



NOTE:
Line Table for area removed to accomodate for a min. distance of 25' from centerline of pavement for: Doc. #: 02 2019 1172: Tax Lot's 781983 & 689990

LINE	BEARING	DISTANCE
L1	S 71°16'06" W	9.52'
L2	N 35°11'14" W	19.86'
L3	N 22°29'00" W	33.82'
L4	N 09°14'14" W	46.00'
L5	N 85°32'47" E	5.95'
L6	S 85°32'47" W	5.95'
L7	N 07°25'10" W	102.83'
L8	N 72°48'00" E	7.54'

Basis Of Bearings:
The horizontal Datum is the North American Datum of 1983 (NAD83). The project baseline bearing reference for Grid North was established by GPS observation performed on September 21, 2023. The subject property lines are as per the latest record Deed and aligned to this datum.

0' 30' 60' 90' 120'
GRAPHIC SCALE: 1" = 30'

Sheet 1 of 4

SURVEYOR'S NOTES:

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2. Unauthorized alteration of an item in any way, or addition to a survey map for any person, unless acting under the direction of a licensed land surveyor, is a violation of section 7209, subdivision 2, of the New York State Education Law.
3. Only maps bearing the surveyor's *signature overlaid with embossed seal* are genuine true and correct copies of the surveyor's original work and opinion. Anything other than copies with an embossed-seal and signature may contain unauthorized and undetectable modifications, deletions, additions, and changes, and are not to be relied upon. A copy of this document without a proper application of the surveyor's embossed seal should be assumed to be an *unauthorized copy*.
4. Certifications on this 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 map is prepared, to the title company, to the governmental agency, and to the lending institution listed on this 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. This survey is subject to the findings of a Title Report and or Title Search.
8. Surveyed as per deeds, prior survey maps, filed maps, physical evidence and existing monumentation found at the site.
9. Subject to any conditions, restrictions, covenants and/or right-of ways/easements of record, if any.

CERTIFICATION NOTES:
This certification is made only to named parties for purchase and/or mortgage of herein delineated property by named purchaser. No responsibility or liability is assumed by surveyor for use of survey for any other purpose including, but not limited to, use of survey for survey affidavit, resale of property, or to any other person *not* listed in certification, either directly or indirectly, the setting of fences and/or any other structures in or near the property lines. Unless indicated otherwise, property corners were not set.

SURVEYORS' CERTIFICATION:
I hereby certify to the hereon listed parties that this survey was performed in accordance with the NYS Minimum Technical Standards Section 6 Suburban class and represents the results of an actual *on the ground field survey*, per record description, of the land shown hereon, located at 45 Beekman, Beekman & High Street in the City of Beacon, County of Dutchess, State of New York. Completed on April 25, 2024, performed in accordance with the current existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors, Inc., and is to the best of my knowledge, belief and information, accurate and correct. Except as shown hereon: "there are no encroachments either way across property lines; title lines and lines of actual possession are the same".

Signature _____ Date _____

Jonathan N. Millen, LLS
1229 Route 300 - Suite 4
Newburgh, NY 12550

REFERENCES:
1. The Official Tax Assessor's Maps for the City of Beacon, Dutchess County, New York 12508.
2. Various Deeds of Record - Liber and Page or Document ID as shown:

CERTIFIED TO:
I hereby certify to:
Beekman Arts Center, LLC
Bayridge Studios, LLC
The City of Beacon

See Sheet 2 for Topographic Details & Utilities
See Sheet 3 for Drainage System & Underground Utilities
See Sheet 4 for Sanitary System & Underground Utilities

Jonathan N. Millen, LLS
PROFESSIONAL LAND SURVEYOR N.Y. LIC. No. 050746
CERTIFIED TO BE CORRECT AND ACCURATE
STATE OF NEW YORK JONATHAN N. MILLEN 050746 LICENSED LAND SURVEYOR
JONATHAN N. MILLEN, L.L.S.

DATE	REVISION
12/21/2023	ADD ACTUAL DEED LINES ALONG HIGH STREET
05/01/2024	MISC. CHANGES & ADDITIONS

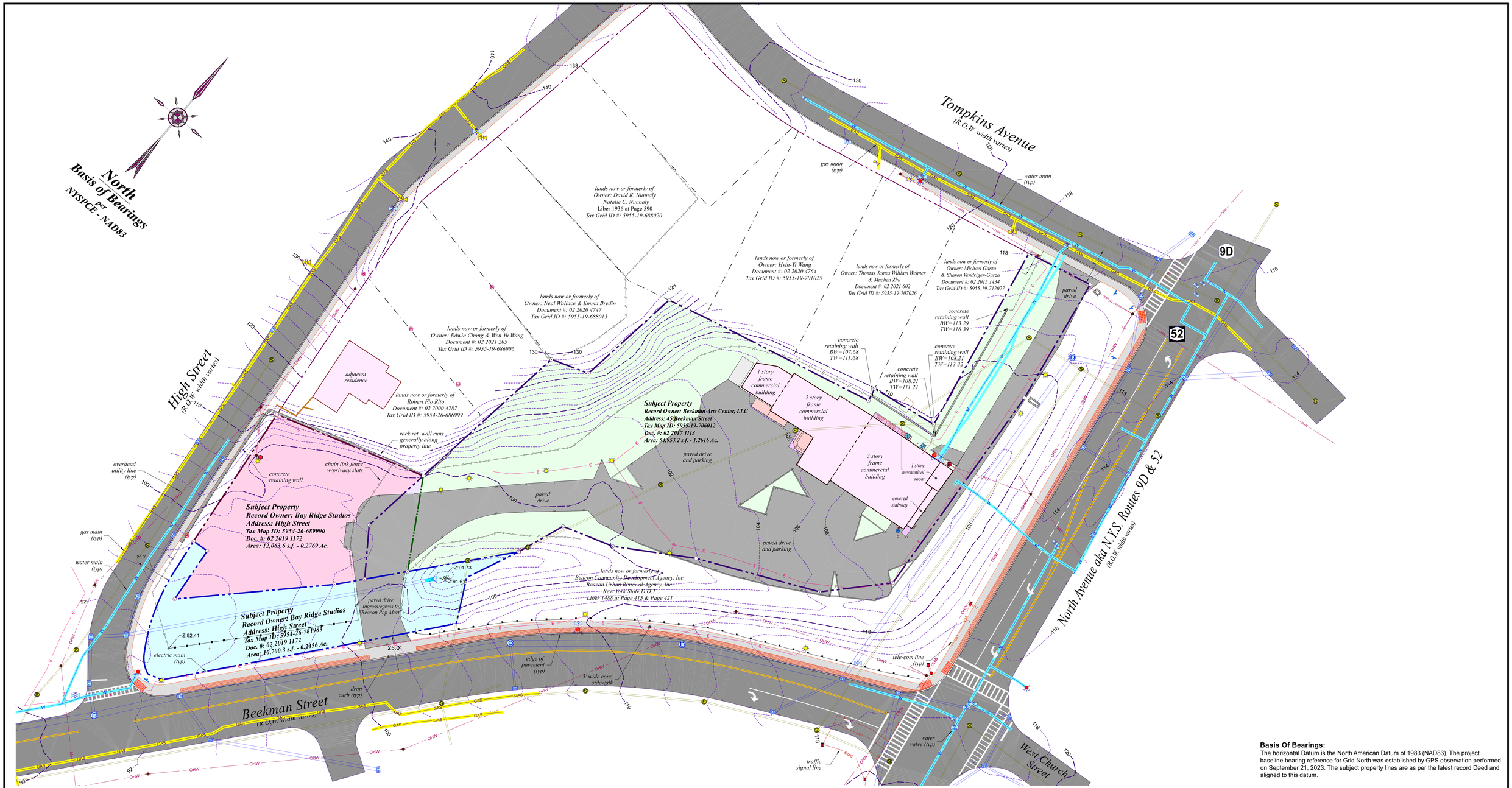
Boundary Survey
of the lands of
Beekman Arts Center, LLC & Bayridge Studios, LLC

Automated Construction Enhanced Solutions, Inc.
Professional Land Surveying
1229 Route 300 - Suite 4 - Newburgh, NY 12550
Office: 845-943-7198 Field: 914-906-8830 Web: acesurveying.com

Prepared For Tax Map Parcels
5955-19-706012, 5955-19-689990 & 5955-19-781983
aka 45 Beekman Street, Beekman Street & High Street
situated in the
City of Beacon
County of Dutchess, New York 12508

DATE: 11/03/2023 | SCALE: 1"=30' | JOB No. 23075HAS | DRAWN BY: jmm

600



Basis Of Bearings:
The horizontal Datum is the North American Datum of 1983 (NAD83). The project baseline bearing reference for Grid North was established by GPS observation performed on September 21, 2023. The subject property lines are as per the latest record Deed and aligned to this datum.

SURVEYOR'S NOTES:

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I hereby certify to the hereon listed parties that this survey was performed in accordance with the NYS Minimum Technical Standards Section 6 Suburban class and represents the results of an actual *on the ground field survey*, per record description, of the land shown hereon, located at 45 Beekman, Beekman & High Street in the City of Beacon, County of Dutchess, State of New York. Completed on April 25, 2024, performed in accordance with the current existing Code of Practice for Land Surveys adopted by the New York State Association of Professional Land Surveyors, Inc., and is to the best of my knowledge, belief and information, accurate and correct. Except as shown hereon: "there are no encroachments either way across property lines; title lines and lines of actual possession are the same".

_____ _____ _____
Signature Date

Jonathan N. Millen, LLS
1229 Route 300 - Suite 4
Newburgh, NY 12550

REFERENCES:
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CERTIFIED TO:
I hereby certify to:
Beekman Arts Center, LLC
Bayridge Studios, LLC
The City of Beacon

See Sheet 1 for Metes & Bounds
See Sheet 3 for Drainage System & Underground Utilities
See Sheet 4 for Sanitary System & Underground Utilities

0' 30' 60' 90' 120'
GRAPHIC SCALE: 1" = 30'

Jonathan N. Millen, LLS
PROFESSIONAL LAND SURVEYOR N.Y. LIC. No. 050746
CERTIFIED TO BE CORRECT AND ACCURATE

STATE OF NEW YORK · JONATHAN N. MILLEN · 050746 · LICENSED LAND SURVEYOR

JONATHAN N. MILLEN, L.L.S.

Topographic Details & Utilities Survey

of the lands of

Beekman Arts Center, LLC & Bayridge Studios, LLC

Automated Construction Enhanced Solutions, Inc.
Professional Land Surveying
1229 Route 300 - Suite 4 - Newburgh, NY 12550
Office: 845-943-7198 Field: 914-906-8830 Web: acessurveying.com

Prepared For Tax Map Parcels
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situated in the
City of Beacon
County of Dutchess, New York 12508

DATE: 11/03/2023	SCALE: 1"=30'	JOB No. 23075HAS	DRAWN BY: jmn

601



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I hereby certify to:
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Bayridge Studios, LLC
The City of Beacon

See Sheet 1 for Metes & Bounds
See Sheet 2 for Topographic Details & Utilities
See Sheet 4 for Sanitary System & Underground Utilities

0' 30' 60' 90' 120'
GRAPHIC SCALE: 1" = 30'

Jonathan N. Millen, LLS
PROFESSIONAL LAND SURVEYOR N.Y. LIC. No. 050746
CERTIFIED TO BE CORRECT AND ACCURATE

STATE OF NEW YORK · JONATHAN N. MILLEN · 050746 · LICENSED LAND SURVEYOR

JONATHAN N. MILLEN, L.L.S.

Basis Of Bearings:

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Sheet 3 *of 4*

DATE	REVISION
05/01/2024	ADD SHEET FOR STORMWATER UTILITIES
06/01/2024	MISC CHANGES & ADDITIONS
06/16/2024	MISC CHANGES & ADDITIONS

Storm Sewer & Utilities Survey

of the lands of

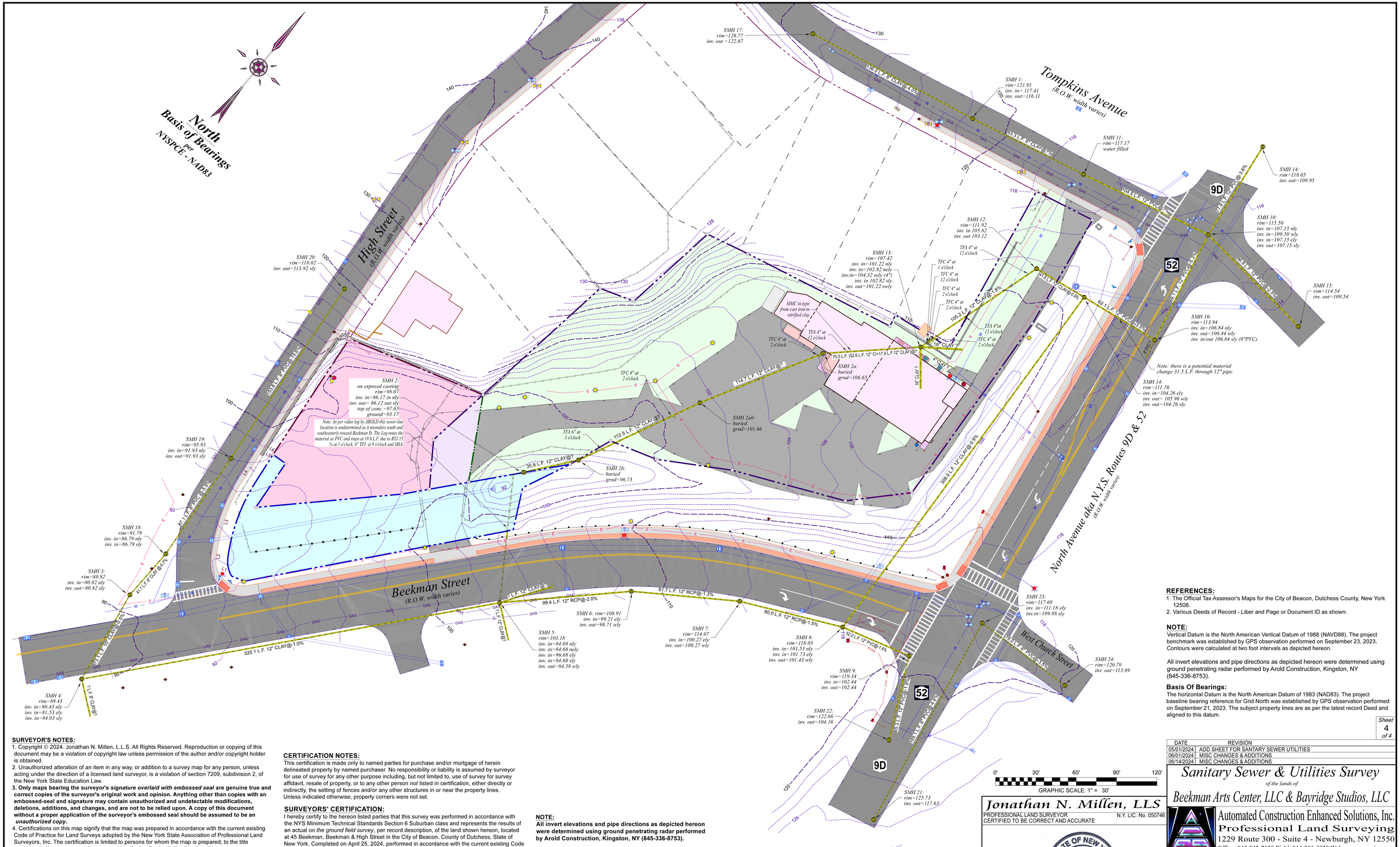
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DATE: 11/03/2023	SCALE: 1"=30'	JOB No. 23075HAS	DRAWN BY: jnm



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Signature _____ Date _____

Jonathan N. Millen, LLS
1229 Route 300 - Suite 4
Newburgh, NY 12550

NOTE:
All invert elevations and pipe directions as depicted hereon were determined using ground penetrating radar performed by Arold Construction, Kingston, NY (845-336-8753).

CERTIFIED TO:

I hereby certify to:
Beekman Arts Center, LLC
Bayridge Studios, LLC
The City of Beacon

See Sheet 1 for Metes & Bounds
See Sheet 2 for Topographic Details & Utilities
See Sheet 3 for Drainage System & Underground Utilities

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Sheet 4 of 4

DATE	REVISION
05/01/2024	ADD SHEET FOR SANTARY SEWER UTILITIES
06/01/2024	MISC CHANGES & ADDITIONS
06/14/2024	MISC CHANGES & ADDITIONS

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JONATHAN N. MILLEN, L.L.S.

Sanitary Sewer & Utilities Survey

of the lands of

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DATE: 11/03/2023	SCALE: 1"=30'	JOB No. 23075HAS	DRAWN BY: jmm

KARC
PLANNING CONSULTANTS, INC.

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

FR: KARC Planning Consultants, Inc.

DATE: July 8, 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 45 Beekman Street:

- Cover letter by Taylor M. Palmer, Cuddy + Feder LLP, dated June 25, 2024
- Exhibit A – Response to Comments Memorandum by Colliers Engineering & Design, dated June 25, 2024
- Exhibit B – Infiltration & Inflow Report by Colliers Engineering & Design, dated June 25, 2024
- Exhibit C – Stormwater Calculation Memo by Colliers Engineering & Design, dated June 25, 2024
- Exhibit D – Coastal Assessment Form by Beekman Art Center LLC & Bay Ridge Studios LLC, dated November 28, 2024
- Traffic & Parking Study by Colliers Engineering & Design, dated November 28, 2023, last revised June 24, 2024
- Site Plan Set (19 sheets) by Colliers Engineering & Design, dated January 30, 2024, last revised June 25, 2024
- Survey (4 sheets) by Automated Construction Enhanced Solutions, Inc., dated November 3, 2023, last revised May 1, 2024
- Floor Plans and Site Section (4 sheets) by Aryeh Siegel, dated November 28, 2023, last revised June 25, 2024
- Architectural Renderings (1 shet) by Aryeh Siegel, dated November 28, 2023, last revised June 25, 2024

Project Description:
The applicant has submitted an alternative site plan proposal contingent upon acquisition of "Surplus ROW Property" along Beekman Street. The proposal includes construction of two 4-story mixed-use buildings with a total of 64 residential dwelling units, 14,892 sq. ft. commercial space, and 88 off-street parking spaces. The 2.06-acre site includes three parcels and ROW acquisition to be merged into a single lot of record. The property is located primarily within the Linkage (L) district, with only the northern driveway onto Tompkins Avenue located in the R1-7.5 Residential district, with frontages on Beekman Street, High Street, and Tompkins Avenue. Multifamily residential, retail, and office uses are permitted within this portion of the Linkage 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:

1. **Streetscape Improvements:** Section 223-41.21(G) of the Linkage District code outlines required and encouraged streetscape improvements within the Street Transition Zone, Pedestrian Clearway, and Building Transition Zone. The Applicant is proposing many streetscape improvements such as a covered arcade, sidewalk extensions, landscaping, tree grates and benches. It is recommended that the Applicant provide streetscape profiles (similar to Figure 21-17 below) with notated dimensions and improvements so that the Planning Board and staff can better assess the proposed pedestrian experience and compliance with the above referenced section. Specific considerations include:

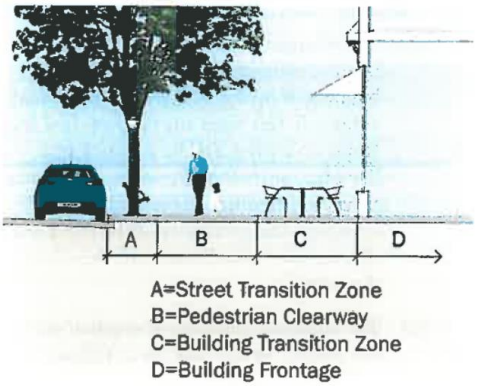
    a) A **Pedestrian Clearway**, at least eight (8) feet wide, with unobstructed space for pedestrian activity, shall be provided along all storefront frontages.

    b) The Planning Board may require the planting of street trees with the **Street Transition Zone**, on average 30-40 feet apart. The proposed tree grates in front of Building #2 appear to be somewhat in the middle of the pedestrian clearway / sidewalk. Can these proposed tree grates or tree pits be relocated within the Street Transition Zone?

    c) Within the **Building Transition Zone**, the Planning Board may require planters, landscaping, display areas, and outdoor dining areas to enhance the appearance of the streetscape. It appears as if the proposed covered arcade will serve as the Building Transition Zone, but it is unclear from the provided renderings and floor plans how this space will be utilized and appear to pedestrians.

    d) The proposed treatment on the exterior of the arcade at the southeast corner of Building #1 is unclear, and from the renderings looks dark and closed off. This is arguably the most prominent and important corner of the proposed development and as such should be a focal point and key pedestrian entrance to Building #1.

Figure 21-17: Parts of the Streetscape



2. **Architecture & Design:** Elevations noting major dimensions, materials, colors, rooftop projections (including mechanicals), and proposed frontage type(s) for the revised layout will be required. Sheet A-105 provides 3D renderings, but there appear to be discrepancies in terms of color and materials, and no dimensions or material callouts are provided. Traditional elvations will be required. Specific considerations pursuant to the design standards outlined in Section 223-41.21(K) include:
    - Larger buildings should incorporate significant breaks in façade and roofline at minimum every 35 feet.
    - Storefront entrances should be prominent and easily identifiable.
    - 70% transparency is required on first floor commercial façades.
    - Materials and colors shall complement historic buildings on the block. For reference, photos of properties within the adjacent HDLO Zone on High Street and Tompkins are included below.



3. **Pedestrian & Traffic Improvements.** The applicant's Traffic & Parking Study will need to be reviewed by the Board's transportation consultant. It should also be noted that Section 223-41.21(G)(4) states that the Planning Board may require that an applicant 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.

4. **Parking Location.** Where parking is located to the side of proposed buildings, it must be located 40 ft from the property line. Three (3) parking stalls on the southwest portion of the lot are located within the 40 ft setback from High Street and will therefore require a variance from the ZBA or redesign.

5. **Landscaping Plan:** The proposed landscaping plan provides a supportable mix of plant species, providing plantings of varied heights and color profiles. The Planning Board should discuss if additional plantings can be added along the western edge of the driveway onto Tompkins Avenue in order to provide a buffer between the proposed project and 7 Tompkins Avenue. Additionally, as discussed above in Comment 1b, the Planning Board should discuss the feasibility of providing street trees every 30-40 feet along Beekman Street.

6. **Lighting Plan:** An updated lighting plan was provided on Sheet 13. However, the provided building renderings appear to show decorative uplighting along the building façade and corridor lighting within the proposed covered arcade. The Planning Board should request clarification as to whether this lighting was modeled within the provided photometric plan. If not, the location of this lighting should be shown on forthcoming elevations and included within the lighting plan and photometrics. Lighting along Beekman Street should be pedestrian-scaled and decorative light sources must be under 600 lumens.

7. **Rooftop Common Space.** Section 223-13(E) permits rooftop accessory structures to "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." Although the term is not defined in the code, I do not believe the proposed rooftop common space is considered a "rooftop garden" and therefore compliance with the regulations above should be demonstrated on Sheets A-102 and A-103.

8. **Easement Agreement**. The proposed sidewalk connection to NYS Route 9D & 52 extends beyond the proposed property boundary. Any proposed easement agreements may require review by the Board's Legal Counsel.

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

If you have any questions, 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

July 5, 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 #2 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:

- Response to Comments Memorandum prepared by Colliers Engineering & Design (CED), dated June 25, 2024
- Traffic & Parking Study prepared by CED, revised June 24, 2024
- Preliminary Site Plan prepared by CED, dated June 25, 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 10,566 square feet of commercial space, 2,360 square feet of tenant amenity space, and 45 dwelling units. The High Street building is comprised of 4,326 square feet of commercial space, and 19 dwelling units. The site will be supported by 88 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 three tie-ins with the existing sidewalk network along Beekman Street and North Avenue. Upon review of the aforementioned documents, CM offers the following comments:

<u>February 9, 2024 Comments on the Traffic Impact Study (TIS):</u>

1. **No further comments.**

2. **No further comments.**

3. **No further comments.**

4. **No further comments.**

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: **No further comments.**

   b. North Ave (NYS Route 9D) and Tompkins Ave/Ralph St: **No further comments.**

   c. North Ave (NYS Route 9D) and Beekman St/W Church St: **No further comments.**

   d. Wolcott Ave/North Ave (NYS Route 9D) and Main St/Municipal Plz: **No further comments.**

   e. Beekman St and High St: **No further comments.**

   f. Beekman St and Site Access: **No further comments.**

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.

CED Response: As discussed in the TIS, "Do Not Block Driveway" signage and pavement markings is recommended to be installed along eastbound Tompkins Avenue at the driveway, subject to the approval of the City, to allow for vehicles entering and exiting the site at this location to do so freely.

CM July 5, 2024 Comment: CM agrees with the recommendation to implement the "Do Not Block Driveway" signage and pavement markings. Please update the plans to reflect this improvement.

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.

CED Response: Comment noted. Given changes in the Project and development program the TIS now reflects the proposed alternative building design.

CM July 5, 2024 Comment: Since CM's initial review the development plan has gone through minor changes. Table 1 summarizes those changes.

Development Plan	Proposed Uses	Total Trip Generation
No. 1 – January 26, 2024	**Commercial: 14,088 SF Residential: 64 Dwelling Units**	**Weekday AM: 79 Weekday PM: 138 Saturday Midday: 111**
No. 2 – January 31, 2024	**Commercial: 12,600 SF Residential: 64 Dwelling Units**	**Weekday AM: 77 Weekday PM: 131 Saturday Midday: 103**
No. 3 – June 24, 2024	**Commercial: 14,892 SF Residential: 64 Dwelling Units**	**Weekday AM: 80 Weekday PM: 141 Saturday Midday: 114**

<u>February 9, 2024 Comments on the Parking Study:</u>

CM has no further comments on the Parking Study. The proposed number of spaces is sufficient based on the conservative Shared Parking Analysis that does not take credit for proximity to rail transit.

<u>February 9, 2024 Comments on the Site Plan:</u>

CM has no further comments on the Site Plan.

<u>July 5, 2024 Comment on the Traffic Impact Study:</u>

In addition to the revisions associated with the revised development plan, the Traffic Impact Study, last revised on June 24, 2024, now includes a Collision Analysis and Arterial Analysis per comments from the NYSDOT.

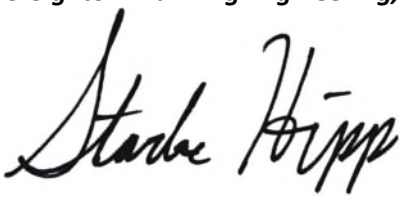
CED obtained collision data from the most recent five years for the study intersection, summarized the data, and calculated the average collision rate. Based on a comparison of the calculated average collision rate to the Statewide collision rates for the associated facility type, only the Wolcott Ave/North Ave and Main Street/Municipal Plaza intersection experienced collisions at a higher rate than the Statewide average. Because the intersection is under the jurisdiction of the NYSDOT, CM defers to the Department on pursuing mitigation

based on these results. Given that the majority of the collisions were rear-ends, a potential mitigation measure could be the installation of back plates on the signal heads.

The Arterial Analysis evaluated the North Avenue (NYS Route 9D) corridor within the bounds of the study intersections. The analysis is conducted using Synchro SimTraffic to determine operational metrics such as travel time and delay. Based on the analysis of the Existing, No-Build and Build conditions, it is evident that the corridor will operate at similar levels of service when considering the proposed development. That being said, CM defers to the Department on whether the analysis is deemed complete and the comment addressed given that the comment originated from their review.

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

N:\Projects\2024\124-008 Beacon - 2024 Traffic Reviews\Working\Correspondence\45 Beekman\20240705_45 Beekman Rev2_124008.docx

LANC & TULLY
Engineering and Surveying, P.C.

July 8, 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 45 Beekman Street:

- Correspondence dated June 25, 2024, from Cuddy & Feder.
- Response correspondence dated June 25, 2024, from Colliers Engineering & Design.
- Infiltration and Inflow (I&I) Investigation, dated June 25, 2024, as prepared by Colliers Engineering & Design.
- Stormwater calculation memo, dated June 25, 2024, as prepared by Colliers Engineering & Design.
- Costal Assessment Form and Local Waterfront Consistency Statement.
- Traffic & Parking Study, with the latest revision date of June 24, 2024, as prepared by Colliers Engineering & Design.
- Plan set titled "Beekman Arts Center, LLC & Bay Ridge Studios, LLC", consisting of the following sheets as prepared by Jonathan Millen, LLS.:
  - Boundary Survey, with the latest revision date of May 1, 2024.
  - Topographic Details & Utility Survey dated November 3, 2023.
  - Storm Sewer & Utilities Survey, with the latest revision date of June 16, 2024.
  - Sanitary Sewer & Utilities Survey, with the latest revision date of June 14, 2024.
- Architectural plan set titled "Building Plans – 45 Beekman Street" and "Elevations", consisting of Sheets A-101 thru A-105, with the latest revision date of June 25, 2024, as prepared by Aryeh Siegel, Architect.
- Plan set titled "Preliminary Site Plan for Beekman Arts Center LLC & Bay Ridge Studios LLC", with the latest revision date of June 25, 2024, as prepared by Colliers Engineering & Design, and consisting of Sheets 1 of 19 through 19 of 19.

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 applicant is currently pursuing the acquisition of a portion of the NYSDOT right-of-way along Beekman Street. If the applicant is able to acquire this land, the applicant will be able to develop the site in a more consistent manner with the zoning code, as shown on the current plans. The submitted architectural floor plans show a total of 64 dwelling units consisting of 33 one-bedroom units and 31 two-bedroom units. The project site, with the lots merged, has an area of 2.05± 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 document and plans, we would like offer the following comments:

General Comments:

1. A lot-line merger plan shall be prepared for the project. ***Applicant notes that a plan will be provided pending NYSDOT response to proposal to acquire additional site area along Beekman Street.***

2. The applicant's consultant has conducted an Inflow & Infiltration (I&I) Study of the existing site and building and found that there is an interior sump pump that appears to be tied to the sanitary sewer collection system. We would recommend that dye testing be conducted to verify where the sump pump discharges to. The I&I study should also be expanded upon to reflect the type of soils at this location, the depth to ground water, and the amount of water that could be conveyed from the sump pump to the sanitary sewer collection system during high ground water and long duration storm events.

   The applicant's consultant does state that this stormwater connection to the sanitary sewer will be eliminated upon approval and construction of the proposed development. We recommend that the connection of the sump pump to the sewer collection system be removed, and verified by the City's Building Department, prior to signing of the final plans.

3. A subdivision plan shall be prepared to show the combining of the lots and the offers of dedications for lands to be conveyed to the City of Beacon for road right-of-way area along Beekman Street and High Street.

4. As previously discussed at the last Planning Board meeting, additional architectural elevations and sightline profiles should be provided of the project from High Street and the yards of the residents along High Street.

5. A stormwater maintenance and access agreement shall be prepared for the project and provided for review. ***Applicant's consultant notes that this will be provided pending NYSDOT response to acquire additional site area along Beekman Street.***

6. As the project progresses, the project engineer shall prepare a construction cost estimate for all public improvements and submit it for review. ***Applicant's consultant notes that this will be provided pending NYSDOT response to acquire additional site area along Beekman Street.***

7. 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. ***The applicant's consultant notes that the updated estimated flow for the entire project is estimated to be 11,950 GPD.***

8. As the current plans show grading, drainage improvements, and sidewalks with the NYSDOT right-of-way along Route 9D, the proposed work within the NYSDOT right-of-way will require their review and approval, as well as NYSDOT permitting for the work.

Survey Plans:

1. The "Sanitary Sewer & Utilities Survey" plan should include a legend to define the following terms TFC, TFA, MMC, TFI, RTJ, and MSA, that appear on this plan.

Sheet 1 of 19:

1. The "General Information" notes on the Cover Sheet shall include a note stating "Upon completion of project construction, an as-built survey shall be prepared of the project. The as-built survey shall include the location, size and material of all utilities installed on the project site."

Sheet 2 of 19:

1. The limits of disturbance (LOD) line should be adjusted along High Street, as it is shown to go out and around a sewer manhole within High Street. This would also be the same for Sheet 3 of 19.

Sheet 3 of 19:

1. The total area of disturbance labeled on the plan, as defined by the LOD line, shall be revised based upon on the comment made for Sheet 2 of 19.

Sheets 5, 6 & 7 of 19:

1. We would recommend that the curb pieces on the catch basins be 8 inches in height to allow for a depressed area around the catch basins which would eliminate storm water along the curb line from flowing by. The catch basin detail on Sheet 17 should be revised to reflect the height of the curb-back piece. This will also require that the grate elevation of each of the curb inlet catch basins be updated.

2. Elevations shall be provided for the concrete pads to be provided for the refuse enclosures.

Sheets 8 & 9 of 19:

1. The "Sanitary Sewer & Utilities Survey" plan shows 5 possible connections to the sanitary sewer line running between SMH-12 and SMH-13. The applicant shall conduct further studies of these connections to determine if they are active or not. It may be possible to determine this through dye testing of the neighboring homes. As the sanitary sewer lines running across the site are private, there is concern that a neighboring parcel(s) may be connected to this private system. If it is found that a neighboring parcel(s) is connected to the private system, the applicant will need to make provisions to reconnect the neighboring parcel(s) to the sewer collection system in Tompkins Avenue. If dye testing is to be performed, we would recommend that the applicant coordinate this with the City's Water & Sewer Department.

2. The plans shall show the sanitary sewer to continue from SMH-14 to SMH-12. Based upon recent discussions with the City's Water & Sewer Superintendent, this interconnection is blocked, as the sewer is conveyed south from SMH-14 to SMH-8 on the south side of Beekman Street. This in conjunction with the findings of the sewer lateral connections just north of SMH-13 as mentioned in Comment No. 1 above, may allow for the applicant to remove the existing sewer collection running across the site, as well as reducing the amount of new sewer main and manholes (213 feet of main and 2 manholes) to be installed as part of the project.

3. There are three (3) lines on the backside of Building #2 that connect to the 24" storm drainage line. The lines shall be labeled as to size and material, as well as what they represent. Clean-outs should be provided on these lines for access to maintain them, as well as a construction detail being added to the plan showing how the pipes will be connected to the 24" storm line.

4. The proposed size of the water connections lines to both buildings shall be noted on the plans.

5. The water line connection to Building #2 is located within 1.5-feet of the exterior of storm drainage manhole MS S-12. Additional horizontal separation shall be provided between the water line and drainage manhole to comply with NYSDOH regulations.

6. The size and material of the existing water main within High Street and Tompkins Avenue shall be provided on the plans.

7. The water connection to Building #1 should be shown to the water main in Tompkins Avenue, not the gas main.

8. The water service line to Building #1 should be 8-inches in diameter to a point just past the proposed hydrant.

9. The shifting of the water line around SMH-12 may not be necessary, as this section of sewer line could be removed, and the manhole relocated if the remaining line is found to be necessary to remain.

Sheet 11 of 19:

1. The erosion control matting detail shall note that all matting shall be 100% biodegradable.

Sheet 13 of 19:

1. The lighting behind buildings along the parking areas should be revised to comply with Section 223-14, Paragraph B(3)(b), which states "Pedestrian and parking lot areas should average approximately one footcandle...". Although the calculation summary on the plan notes an average of 1.1 footcandles for the entire site, there are hot-spot areas within the parking lot with one area approaching 3.9 footcandles.

Sheet 14 of 19:

1. Given the volume of traffic along the roads, the pavement detail shall be revised to reflect a minimum of 3" of base course, 3" of binder course, and 1 ½" of top course pavement. A note shall also be included stating that if the pavement thickness is found to be thicker than that specified, the depth of pavement shall meet that as exists in the roadway.

Stormwater Pollution Prevention Plan:

1. Our office provided stormwater comments to the applicant's engineer on February 14, 2024, to which they have a memo dated June 25, 2024, in which they have addressed some of the calculation comments. The consultant has noted that a new SWPPP shall be provided once the acquisition of the right-of-way from NYSDOT has been resolved.

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. 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

City of Beacon Planning Board Agenda
07/09/2024

Title:

Continue review of application for Site Plan Approval, 19 Henry Street, townhomes, submitted by Lori Joseph Builders, Inc.

ATTACHMENTS

19 Henry PB 7.9.24 Supplemental Submission (6110456.1).pdf

KARC Review PB_19 Henry Street_2024.07.05.pdf

Lanc & Tully 19 Henry St 06-30-24 review.pdf

CUDDY +FEDER LLP

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

June 25, 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 Approval for Proposed Townhomes
Supplemental Submission
Premises: 19 Henry Street, Beacon, New York – Transitional ("T") District
Tax Parcel ID: (5954-36-955796)

Dear Chairman Gunn and Members of the Planning Board:

On behalf of Lori Joseph Builders, Inc. (the "Applicant"), the owner of the above-referenced Premises, we respectfully submit this letter and the referenced enclosures in furtherance of an Application for Site Plan Approval (the "Application"), proposing to redevelop the Premises with four (4) two (2)-story townhouses (the "Project").

UPDATED ARCHITECTURAL DESIGN – TOWNHOUSE PROJECT:

Since the Applicant's first appearance at the May 14th Planning Board meeting, the Applicant's architectural designer, Day Stokosa Engineering P.C. ("Day Stokosa") has been diligently working to update the Project in response to this Board and its consultant's initial comments. The enclosed Elevations reflect those efforts towards creating a cohesive design that also activates the streetscape along Henry Street. As is further detailed in the narrative prepared by Day Stokosa, the Project now includes a modern Victorian architectural style for each of the townhouse units with traditional design elements such as cornices, corbels, brackets, decorative trim, bay windows, porches, and wood shingle siding in the gabled roofs. These features and elements vary slightly to distinguish each unit and provide them with unique characteristics, while maintaining a Victorian aesthetic. *See* **Exhibit B** – Response to Comments prepared by Day Stokosa.

Additionally, the Applicant's engineering consultant, Hudson Land Design Professional Engineering, P.C. ("HLD"), has provided responses to the comments issued by this Board's

consultants. *See* **Exhibit A** – Engineer Response to Comments. The enclosed Site Plan Set has also been updated to include the following improvements:

- The townhouses have been shifted ten (10.0) feet closer to Henry Street in an effort to align the units with the urban development pattern of the surrounding area;
- Landscaping has been added along the front and rear of the Premises to enhance views from Henry Street and shield views from abutting properties;
- Separate driveways have been established for each unit together with pedestrian walkways between each townhouse unit and driveway; and
- Lighting fixtures have been proposed for the covered entryways for each townhouse unit.

Lastly, HLD prepared an Infiltration and Inflow Investigation ("I & I Report"), a copy of which is annexed hereto as **Exhibit C**. As is further detailed in the I & I Report, two (2) sump pumps connected to the City's sanitary sewer were found in the basement of the existing single-family residence on the Premises. A note has been added to the Plans that both will be removed prior to plan approval.

INDEX OF ENCLOSURES:

In support of this Application, please find five (5) copies of the following documents:

Exhibit A: Response to Comments Memorandum prepared by Hudson Land Design Professional Engineering, P.C., dated June 25, 2024, providing responses to the City Engineering Consultant Lanc & Tully's memorandum and the City Planning Consultant KARC Planning Consultants' memorandum, both dated May 13, 2024;

Exhibit B: Correspondence from Day Stokosa Engineering P.C. dated June 25, 2024, responding to the Planning Board's architectural comments made at the May 15, 2024 Planning Board meeting; and

Exhibit C: I & I Report prepared by Hudson Land Design Professional Engineering, P.C., dated June 25, 2024.

In further support of this Application, we respectfully submit the following attachments:

- Elevations entitled "New 4 Unit Townhome for Henry Street" prepared by Day Stokosa Engineering P.C.; and
- Site Plan Set entitled "Site Plan Application", prepared by Hudson Land Design Professional Engineering, P.C. dated April 30, 2024, numbered and titled as follows (unless otherwise noted):

- Sheet 1 of 6 – Cover Sheet (CV-1);
- Sheet 2 of 6 – Existing Conditions and Removals Plan (XC-1);
- Sheet 3 of 6 – Site Plan (SP-1);
- Sheet 4 of 6 – Erosion & Sediment Control Plan (ESC-1);
- Sheet 5 of 6 – Landscaping and Lighting Plan (LL-1); and
- Sheet 6 of 6 – Construction Details (CD-1).

We look forward to appearing at this Board's regular meeting on July 9, 2024 in order to further discuss the proposed Project.[1] 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 me.

Very truly yours,

Taylor M. Palmer

Enclosures

cc: Jennifer L. Gray, Esq.
Natalie Quinn, KARC Planning Consultants, Inc.
Lanc & Tully, P.C.
Hudson Land Design Professional Engineering, P.C.
Allison Fausner, Esq.

[1] Note: The Applicant is in contact with the City Attorney to review the ownership options (HOA form of ownership) for the Project and the attendant local review process (i.e., whether subdivision approval is also required). The Applicant hopes to provide an update on those discussions prior to the July meeting date.

Exhibit A

HUDSON LAND DESIGN

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 Fax: 845-440-6637
www.HudsonLandDesign.com

June 25, 2024

Hon. John Gunn, Chairman
City of Beacon Planning Board
1 Municipal Plaza
Beacon, New York 12508

Re: 19 Henry Street Residential Site Plan
Gary Joseph (Applicant)
19 Henry Street
Tax Parcel: 5954-36-955796, ±0.258 ac.
City of Beacon, New York

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:

The following materials are submitted in support of the project:

- 5 copies of a Site Plan Set (5 sheets);
- 5 copies of inflow and infiltration report
- 5 copies of building rendering

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:

KARC May 13, 2024 Comment Memo:

1. Acknowledged.
2. Site Plan Elements:
    i. Proposed pedestrian connections to each front door are now shown connecting to each driveway.
    ii. A landscaping plan is now included as Sheet LL-1 of the plan set.
    iii. A lighting plan is now included as Sheet LL-1 of the plan set.

iv. Locations of the surrounding buildings are now shown on Sheet SP-1.

3. Each unit can have a car parked in the garage and in the driveway for a total of 8 parking spaces. Notes regarding parking have been added to Sheet SP-1.
4. The proposed garages will be 10'x20', meeting the City's requirements for indoor parking.
5. See the attached revised front elevation and first floor plan with building dimensions for the first floor.
6. See the Cuddy & Feder cover letter.

L&T May 13, 2024 Comment Memo:

1. See the Cuddy & Feder cover letter.
2. An I&I study has been prepared and is attached.
3. The driveways have been separated so that each unit has an individual driveway. See the revised driveways on Sheet SP-1.
4. A landscaping plan is now included as Sheet LL-1 of the plan set.

Sheet 2 of 5

1. Based on the City's mapping, the water main in Henry Street is 8" diameter and the material is unknown. The main size is now labeled on Sheet XC-1.
2. A note has been added to Sheet XC-1 stating that the existing sidewalk along the frontage will be replaced.
3. Existing driveway aprons are now shown on Sheet XC-1.
4. Two existing trees will be removed from the property as part of this project. The locations and sizes of these trees are noted on Sheet XC-1.
5. There is no plan to remove the existing fence surrounding the side and rear property boundaries currently. Therefore, a note has been placed on Sheet Ex-1 stating the following: "THE APPROVAL OF THIS PLAN DOES NOT CONSTITUTE ANY ENDORSEMENT, APPROVAL OR AUTHORIZATION OF ANY KIND FOR THE CONTINUATION OR REMOVAL OF ANY EXISTING ENCROACHMENTS ON THE SUBJECT PROPERTY".
6. The existing water service is 3/4" and is noted on Sheet SP-1.
7. The approximate location and size of the sewer service are noted on Sheet XC-1.
8. The proposed stormwater connection has been moved to the catch basin to the east of the project.
9. The plans have been revised to show the existing sidewalk will be removed and replaced.

Sheet 3 of 5

1. The plans have been revised to show a continuous concrete sidewalk, concrete aprons for the proposed driveways, and asphalt pavement driveways ending at the sidewalk. The City of Beacon driveway detail has been added to Sheet CD-1.

2. Sheet SP-1 has been revised to state that the buildings are proposed to have basements. A note has been added to the sheet stating that sump pumps shall be provided for the footing drains and shall not be connected to the sanitary sewer system.
3. Lowest sewerable elevations have been added to each unit on Sheet SP-1.
4. Roof leader header pipe is shown encircling the building, allowing connections of roof leaders at any point.
5. All roof leaders will be connected to the roof leader header system. Roof leaders will be connected to the closest header pipe. It is not anticipated that a header pipe will be required across the rear of the building; however, it one is required, it will be added and will be located beneath the patio slabs.
6. The decks are patios on grade. Patio elevations are labeled on Sheet SP-1. No steps will be required to access the yard from the patios.
7. The proposed stormwater system has been revised to connect to the existing catch basin to the east of the project site.
8. The proposed storm pipe connecting the new to the existing catch basin has been changed to 15" diameter.
9. The estimated peak roof runoff flow during the 25-year storm is approximately 0.9 CFS. An 8" dia. pipe at 2% slope is capable of handling the runoff from the entire storm. The only section of pipe receiving the full flow is the 11.8% slope section connecting to the proposed catch basin in Henry Street.

Sheet 4 of 5

1. Silt fence has been moved to behind the proposed sidewalk and construction fencing/signage is now proposed to protect pedestrians from using the sidewalk while it's under construction.

Sheet 5 of 5

1. A driveway detail has been added to Sheet CD-1.
2. Monolithic curb and sidewalk are no longer proposed, as there is a proposed grass strip between the curb and sidewalk to minimize impervious area. The proposed sidewalk is 5 feet wide along the frontage. Individual details for curb, and sidewalk are provided on Sheet CD-1.

Thank you for your attention to this matter. Should you have any questions, please feel free to contact me at 845-440-6926.

Sincerely,

Michael A. Bodendorf, P.E.
Principal

cc: Gary Joseph (via email)
Daniel G. Koehler, P.E. (HLD file)

Exhibit B

DAY | STOKOSA
ENGINEERING P.C.

3 Van Wyck Lane
Wappingers Falls, New York 12590
Phone: 845-223-3202

June 25, 2024

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

Re: 19 Henry Street – Townhouse Proposal

Dear Chairman Gunn and Members of the Board,

In response to this Board's comments at the May 15th Planning Board meeting, we have made the following changes to the elevations of the Applicant's proposed townhome design. We appreciate your feedback and have carefully considered your suggestions in an effort to enhance the overall coherence of the units.

To address the Board's request for consistency, we have replicated the same footprint for each unit. This decision aims to create a unified visual appeal while maintaining a sense of architectural harmony throughout the development. Furthermore, we have opted for a modern twist on Victorian architectural style that tempers the ornate details typical of Queen Anne architecture while maintaining traditional design elements such as cornices, corbels, brackets, decorative trim, bay windows, porches, and wood shingle siding in the gabled roofs. We believe this design complements and enhances the urban development style prevalent in the City of Beacon and in Dutchess County.

Additionally, in response to the Board's desire to strengthen the proposed building's connection with Henry Street, we have shifted the building 10 feet closer to the street frontage. As mentioned in the meeting, this adjustment enhances the townhomes' interaction with the surrounding environment, fostering a more engaging streetscape.

Despite the consistent footprint, we understand the importance of maintaining individuality among the units. To achieve this, each townhome has been endowed with unique characteristics. For instance, every unit features distinct window and door trim patterns as well as varying siding colors. Units 1 and 4 showcase the incorporation of a window bay on both the front and side facades, distinguishing them from Units 2 and 3, which, although similar in layout, differ in trim and siding color schemes. Nonetheless, elements such as roof heights, window patterns, porch designs, cornices, and corbels have been standardized to ensure a cohesive aesthetic across the development.

We respectfully submit that these adjustments successfully strike a balance between consistency and individualism, aligning with both the community's architectural expectations and our vision for a harmonious townhome community.

Sincerely,



Gianna Gasparro-Pece
Architectural Designer
Day & Stokosa Engineering P.C.
ggasparro@daystokosaeng.com

Exhibit C

HUDSON
LAND DESIGN

Civil & Environmental Engineering Consultants
174 Main Street, Beacon, New York 12508 (Main Office and Mailing Address)
13 Chambers Street, Newburgh, New York 12550 (Satellite Office)
Phone: 845-440-6926 Fax: 845-440-6637
www.HudsonLandDesign.com

June 25, 2024

Mr. Bruce Flower
City of Beacon Building Inspector
1 Municipal Center
Beacon, NY 12508

Re: Infiltration and Inflow Investigation
19 Henry Street Site Plan
Tax ID: 5954-36-955796 (±0.26 Acres)
City of Beacon, New York

Dear Chairman Gunn,

Hudson Land Design (HLD) has completed an infiltration and inflow investigation at the above referenced parcel as required by the City of Beacon. The investigation was conducted on May 24, 2024 at the existing residence located at 19 Henry Street, which consists of a one-story single-family home.

The first phase of the study consisted of an exterior inspection of the building to determine the location of roof leader discharge points. The existing building has a gutter system on the east and west sides. One downspout on the east side discharges to the surface through a pop-up drain, while the two downspouts on the west side also discharge to the ground surface (see the pictures below). No water from the roof will enter the City of Beacon's sewer system.

View of the east side gutter system



View of east side roof leader into underground pipe



View of pop-up drain located east of the house in a landscaped area



View of the west side gutter system



View of west side roof leaders discharging to daylight over paved area



The second phase of the study consisted of an interior inspection of the building to determine if there are any illicit connections to the building sewer line from sump pumps, floor drains and the like. HLD personnel were able to observe sections of interior sanitary sewer plumbing to the point where the piping was routed through the west foundation wall of the residence (located towards the rear of the building near the beginning of the addition). The pipe collects the wastewater from the residence and then presumably flows northeasterly toward Henry Street's sanitary sewer collection system. HLD observed a clean-out in the basement on the interior sanitary sewer plumbing along the west foundation wall of the residence and two sump pumps connected to the sanitary sewer. A note has been added to the plan set requiring that the sump pump be removed prior to plan approval.

View of the sewer outlet and sump pump by the building's west wall and second sump pump in basement of addition area.





The daily capacity of the sump pump has been estimated for purposes of understanding the potential number of gallons being removed from the City's sanitary sewer system. Based on similar projects where sump pumps beneath the basement slab were discovered, we can assume an amount of water discharged during time of high groundwater. Based on soils mapping, the area is expected to have Dutchess-Cardigan Complex. The Cardigan component is shallow to bedrock, which is not expected. The Dutchess component is a relatively deep silt loam with groundwater being greater than 80 inches. It is expected that this pump serves purpose only during those periods of high seasonal groundwater in combination with storm events. The slab is approximately 1,370 square feet. Assuming 4" stone layer beneath the gravel, and 40% void ratio, the volume of the stone beneath the slab is approximately 3,420 gallons. Therefore, we can assume 3 pump cycles per day, or a total of 10,260 gallons per day during periods of high groundwater concurrent with long-duration storm events.

Other than the sump pumps, HLD did not find any other illicit connections from the building located at 19 Henry Street to the City of Beacon's sanitary sewer collection system. Should you have any questions, please feel free to call my direct line at 845-765-8955.

Sincerely,

Michael A. Bodendorf, P.E.
Principal

cc: Gary Joseph (via email)
Beacon Planning Board
Daniel G. Koehler, P.E. (HLD file)

NEW 4 UNIT TOWNHOME FOR

HENRY STREET

BEACON, NEW YORK



FIRST FLOOR PLAN



ELEVATIONS

GRAPHIC MATERIAL LEGEND

UNIT 1

- JAMES HARDIE PLANK COLOR: LINDEN GREEN

UNIT 2

- JAMES HARDIE SHINGLE COLOR: CHANTILLY LACE
- JAMES HARDIE PLANK COLOR: SHADOWED WHITE
- JAMES HARDIE SHINGLE COLOR: ARCTIC WHITE
- JAMES HARDIE PLANK COLOR: CELESTIAL BLUE

UNIT 3

- JAMES HARDIE SHINGLE COLOR: BLUE HARBOR
- JAMES HARDIE PLANK COLOR: GRAY SHADOW

UNIT 4

- JAMES HARDIE SHINGLE COLOR: WHITE SMOKE
- JAMES HARDIE TRIM COLOR: ARCTIC WHITE

ALL UNITS

- STANDING SEAM METAL ROOF
- ARCHITECTURAL ASPHALT SHINGLES
- PAINTED CONCRETE FOUNDATION

DAY | STOKOSA
ENGINEERING P.C.
3 Van Wyck Lane Suite 2
Wappingers Falls, New York
(845)-223-3202

19 HENRY STREET

SITE PLAN

19 HENRY STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK

PARCEL INFORMATION:
TAX ID: 5954-36-955796
TOTAL LOT AREA: ±0.258 ACRES
ZONING DISTRICT: T



SITE LOCATION MAP SCALE: 1" = 200'

ADJOINING OWNERS WITHIN 200'
PARCEL: OWNER & ADDRESS
1. HUDSON RIVER HEALTH CARE INC., 341 MAIN STREET, BEACON NY 12508
2. FISCH DEVELOPMENT CORP., 761 HUNTINGTON DRIVE, FISHKILL NY 12524
3. BEACON 355 LLC, 355 MAIN STREET, BEACON NY 12508
4. KARIMI ENTERPRISES LLC, 361 MAIN STREET, BEACON NY 12508
5. U S POST OFFICE, 369 MAIN STREET, BEACON NY 12508
6. CITY OF BEACON, 1 MUNICIPAL PLAZA, BEACON NY 12508
7. U S POST OFFICE, 369 MAIN STREET, BEACON NY 12508
8. CITY OF BEACON, 1 MUNICIPAL PLAZA, BEACON NY 12508
9. GARAGEWORKS STUDIOS LLC, 49 SHEA LANE, BEACON NY 12508
10. GARTH MARK, 7 HENRY STREET, BEACON NY 12508
11. LORRAINE KOSCAL, 17 PINE STREET, CORNWALL ON THE HUDSON NY 12520
12. MATHEW KANE, 30 WILKES STREET, BEACON NY 12508
13. MATHEW KANE, 20 MASE STREET, BEACON NY 12508
14. JOHN TAYLOR, 1115 5TH AVENUE APT 14C, NEW YORK NY 10128
15. CARL SCHAEFER JR., PO BOX 716, BEACON NY 12508
16. CALEB HONEYCHURCH, 92 CATHERINE STREET, BEACON NY 12508
17. MATHEW KEAVENEY, 94 CATHERINE STREET, BEACON NY 12508
18. ALBERTO MORA, PO BOX 1267, BEACON NY 12508
19. SEAN KRAFT, 30 WILKES STREET, BEACON NY 12508
20. PATRICK WHITE, 106 CATHERINE STREET, BEACON NY 12508
21. DWAYNE PRUITT, 110 CATHERINE STREET, BEACON NY 12508
22. DWAYNE PRUITT, 110 CATHERINE STREET, BEACON NY 12508
23. THOMAS JOSEPH LABELLA, 39 SOUTH CHESTNUT STREET, BEACON NY 12508
24. CATHERINE STREET PROPERTIES LLC., 105 CATHERINE STREET, BEACON NY 12508
25. CATHERINE STREET PROPERTIES LLC., 105 CATHERINE STREET, BEACON NY 12508

DRAWING INDEX:
SHEET 1: COVER SHEET (CV-1)
SHEET 2: EXISTING CONDITIONS & REMOVALS PLAN (XC-1)
SHEET 3: SITE PLAN (SP-1)
SHEET 4: EROSION & SEDIMENT CONTROL PLAN (ESC-1)
SHEET 5: LANDSCAPE AND LIGHTING PLAN (LL-1)
SHEET 6: CONSTRUCTION DETAILS (CD-1)

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

OWNER/APPLICANT:
GARY JOSEPH
LORI JOSEPH BUILDERS, INC.
49 SHEA LANE
BEACON, NEW YORK 12508
PH: 845-416-1808

PROJECT SURVEYOR:
BRENDAN JOHNSON, PLS
10 MEADOW LANE
PLEASANT VALLEY, NY 12569
PH: 845-380-0528

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.

_____ _____
GARY JOSEPH 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
1	6/25/24	PER CITY COMMENTS	CMB				

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STATE OF NEW YORK MICHAEL A. BOEHNKE 084466 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

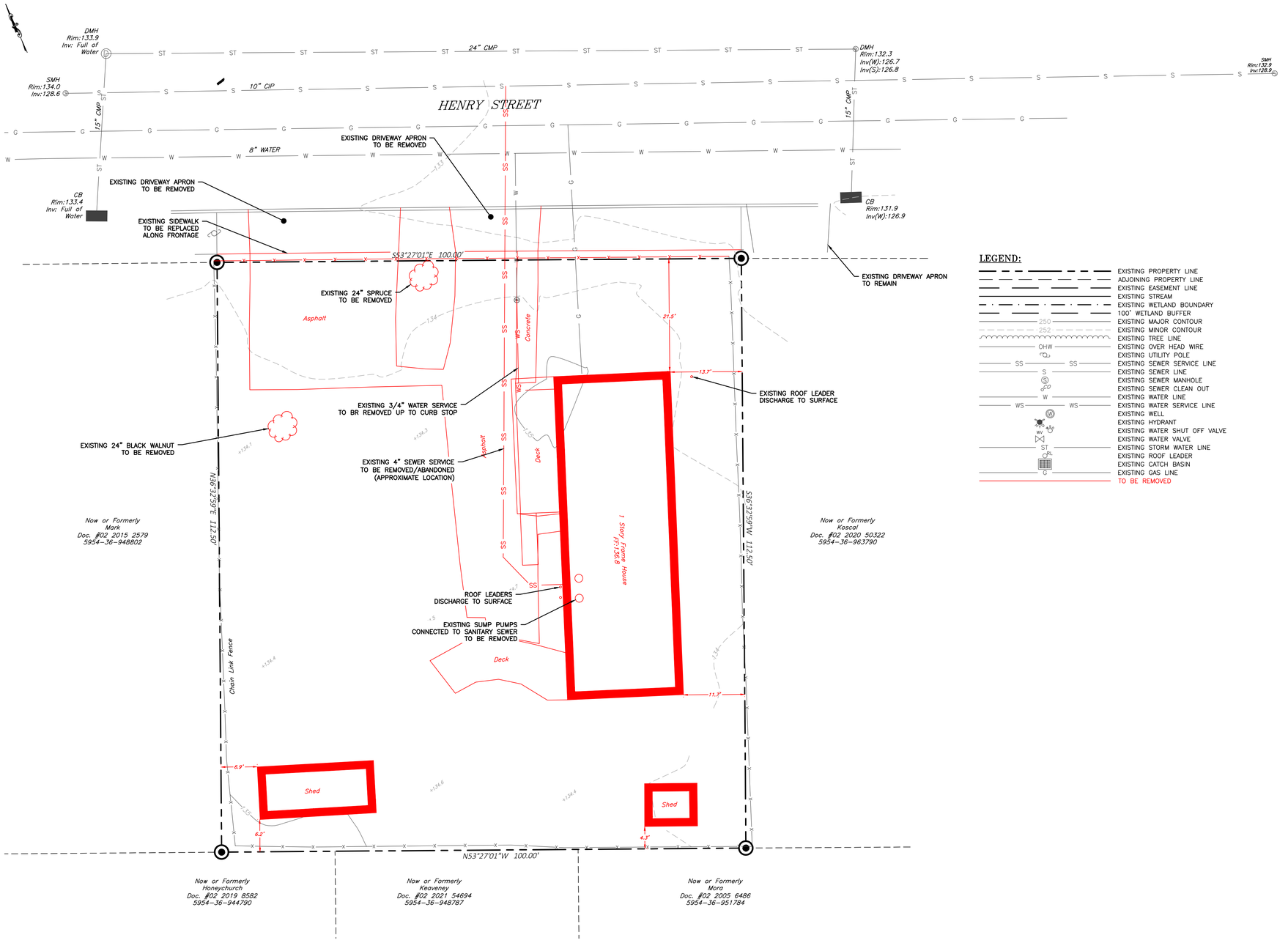
COVER SHEET

19 HENRY STREET

19 HENRY STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-36-955796

JOB #:	2024:014
DATE:	4/30/2024
SCALE:	AS SHOWN
TITLE:	CV-1
SHEET:	1 OF 6

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
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- EXISTING SEWER SERVICE LINE
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- EXISTING WATER LINE
- 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
- EXISTING GAS LINE
- TO BE REMOVED

PROJECT INFORMATION:

PARCEL OWNER:	LORI JOSEPH BUILDERS INC. 49 SHEA LANE, BEACON NY 12508
PROJECT ENGINEER:	HUDSON LAND DESIGN P.C., 174 MAIN STREET, BEACON NY 12508
PARCEL LOCATION:	19 HENRY STREET, BEACON, NY 12508
TAX PARCEL ID:	5954-36-955796
PARCEL AREA:	±0.258-ACRE
WATER SUPPLY:	MUNICIPAL (EXISTING RESIDENCE), PROPOSED MUNICIPAL (FOR NEW RESIDENCE)
SEWAGE DISPOSAL:	MUNICIPAL (EXISTING RESIDENCE), PROPOSED MUNICIPAL (FOR NEW RESIDENCE)

MAP REFERENCES:

1. BOUNDARY AND TOPOGRAPHIC SURVEY PER "MAP OF A SURVEY PREPARED FOR LORI JOSEPH BUILDERS" PREPARED BY BRENDAN JOHNSON PLS, DATED APRIL 11, 2024.

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.

ENCROACHMENT NOTE:

THE APPROVAL OF THIS PLAN DOES NOT CONSTITUTE ANY ENDORSEMENT, APPROVAL OR AUTHORIZATION OF ANY KIND FOR THE CONTINUATION OR REMOVAL OF ANY EXISTING ENCROACHMENTS ON THE SUBJECT PROPERTY.

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

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_____ 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:

NO.	DATE	DESCRIPTION	BY
1	6/25/24	PER CITY COMMENTS	CMB

REVISIONS:

NO.	DATE	DESCRIPTION	BY

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

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STATE OF NEW YORK MICHAEL A. BOSENKO 084456 LICENSED PROFESSIONAL ENGINEER

SEAL

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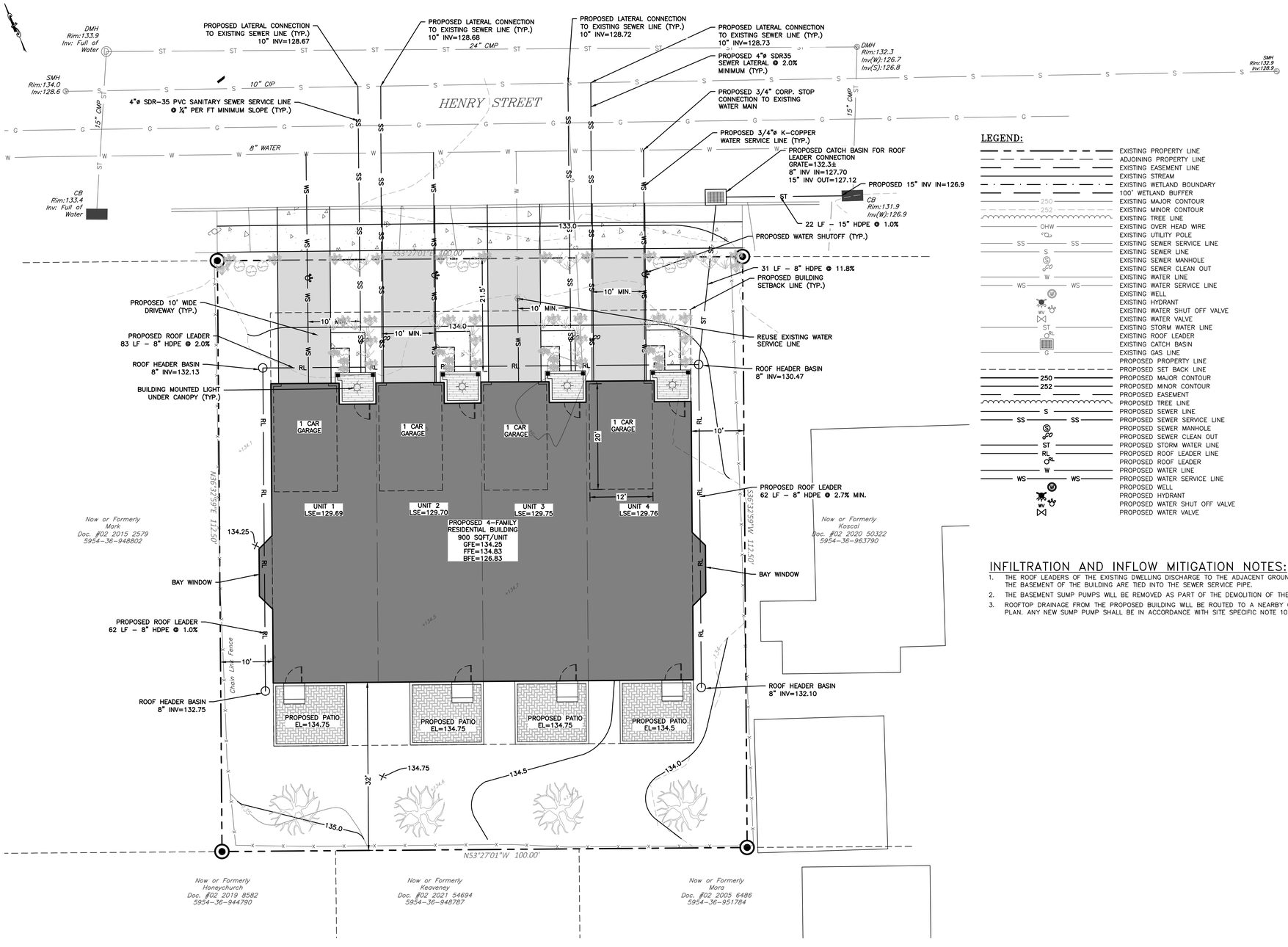
EXISTING CONDITIONS & REMOVALS PLAN

19 HENRY STREET

19 HENRY STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-36-955796

JOB #: 2024:014
DATE: 4/30/2024
SCALE: 1"=10"
TITLE: XC-1
SHEET: 2 OF 6

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



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- PROPOSED WELL
- PROPOSED HYDRANT
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE

INFILTRATION AND INFLOW MITIGATION NOTES:

1. THE ROOF LEADERS OF THE EXISTING DWELLING DISCHARGE TO THE ADJACENT GROUND. TWO SUMP PUMP IN THE BASEMENT OF THE BUILDING ARE TIED INTO THE SEWER SERVICE PIPE.
2. THE BASEMENT SUMP PUMPS WILL BE REMOVED AS PART OF THE DEMOLITION OF THE EXISTING DWELLING.
3. ROOFTOP DRAINAGE FROM THE PROPOSED BUILDING WILL BE ROUTED TO A NEARBY CATCH BASIN PER THIS PLAN. ANY NEW SUMP PUMP SHALL BE IN ACCORDANCE WITH SITE SPECIFIC NOTE 10 ON THIS PLAN.

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

PARAMETER	REQUIREMENT	EXISTING	PROPOSED
LOT AREA:	5,000 SQUARE FEET MIN	11,250 S.F.	11,250 S.F.
LOT WIDTH:	50 FEET MINIMUM	100 FEET	100 FEET
LOT DEPTH:	100 FEET MINIMUM	112.5 FEET	112.5 FEET
YARD SETBACKS (RESIDENTIAL USE):			
FRONT YARD:	10 FEET MINIMUM	21.5 FEET	21.5 FEET
SIDE YARD:	10 FEET MINIMUM	6.9 FEET	10 FEET[2]
REAR YARD:	20 FEET MINIMUM	4.3 FEET	32.0 FEET
MAX. BUILDING HEIGHT:	MAX 35 FEET, 2.5 STORIES	≤35 FEET	≤35 FEET
MAX. BUILDING COVERAGE:	40% MAX	±15%	40%
AREA PER UNIT:	2,500 S.F. MIN.[1]	11,250 S.F.	2,812.5 S.F.

[1] ONE HALF OF THE MINIMUM LOT SIZE AREA PER DWELLING UNIT AS THE LEAST RESTRICTIVE ADJOINING RESIDENTIAL DISTRICT

[2] BAY WINDOW PROJECTING INTO SIDE YARD IS 2.5 FEET, WHICH IS PERMITTED UNDER SECTION 223-13 C. OF THE CITY OF BEACON CODE.

OFF STREET PARKING TABULATION:

USE	CODE REFERENCE	SIZE	REQUIRED SPACES	PROPOSED SPACES
RESIDENTIAL(1- & 2-FAMILY DWELLING):	1 SPACES PER UNIT. PER ARTICLE III GENERAL REGULATIONS § 223-26 F.	4 UNITS	2 X 4 = 8	8*

* INCLUDES 1 GARAGE PARKING SPACE AND 1 DRIVEWAY PARKING SPACE PER UNIT.

UTILITY NOTES:

1. ALL WATER & SEWER CONNECTIONS SHALL COMPLY WITH CITY WATER AND SEWER DISTRICT REQUIREMENTS.
2. THE PROPOSED BUILDING SHALL BE SET AT SUCH ELEVATION TO ENSURE GRAVITY FLOW FROM THE RAW SEWER LINE TO THE POINT OF CONNECTION WITH THE EXISTING SEWER MAIN, WHILE MAINTAINING PROPER EARTH COVER ABOVE ALL PIPING.
3. NO CELLAR, ROOF, OR FOOTING DRAINS SHALL BE DISCHARGED INTO THE SANITARY SEWER SYSTEM.

GENERAL CONSTRUCTION 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.
2. WATER, SEWER AND STORM SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PLANS. ALL OTHER UTILITIES (TELEPHONE, ELECTRIC, GAS, CABLE, ETC.) SHALL BE INCORPORATED FOLLOWING SITE PLAN APPROVAL. ALL SUCH UTILITY DESIGNS SHALL BE DEVELOPED IN COORDINATION WITH THE RESPECTIVE UTILITY COMPANIES.
3. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE, LOCATION, DEPTH AND CONDITION OF ALL UTILITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT.
4. THE CONTRACTOR SHALL CONSTRUCT ALL IMPROVEMENTS AS SHOWN ON PLANS. ANY FIELD CONDITIONS THAT MAY RESULT IN A VARIATION FROM THE PLAN SET SHALL BE BROUGHT TO THE ENGINEERS ATTENTION IN WRITING. VARIATIONS FROM THE PLAN WITHOUT APPROVAL FROM THE ENGINEER WILL BE CONSIDERED DEFICIENT.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ON-SITE OR OFF-SITE DAMAGES TO VEGETATION OR PROPERTY CAUSED BY HIS OPERATIONS. SUCH DAMAGES SHALL BE REPAIRED OR REPLACED AT THE CONTRACTORS COST TO THE SATISFACTION OF THE ENGINEER, PROPERTY OWNER OR AGENCY HAVING JURISDICTION.
6. THE CONTRACTOR SHALL SECURE ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
7. THE CONTRACTOR SHALL KEEP THE SITE IN A CLEAN AND ORDERLY MANNER.

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 (IF APPLICABLE), WATER AND SEWER MAINS WITH RESPECT TO THE PROPOSED LOCATIONS FOR THE SERVICE LINES.
2. THE CONTRACTOR SHALL CONTACT THE CITY OF BEACON WATER AND SEWER DEPARTMENTS TO SCHEDULE A PRE-CONSTRUCTION MEETING TO ENSURE THAT THE ARRANGEMENTS FOR WATER SUPPLY AND SEWAGE DISPOSAL ARE COMMENCED IN ACCORDANCE WITH THE APPROVED PLANS AND AMENDMENTS THERETO AND GENERALLY ACCEPTED STANDARDS.
3. THE PROPOSED LOT SHALL BE SERVED BY THE CITY OF BEACON MUNICIPAL WATER AND SEWER SERVICES.
4. THE WATER SERVICE LINE AND METER SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF BEACON WATER DEPARTMENT REQUIREMENTS.
5. THE WATER SERVICE LINE TO EACH UNIT SHALL BE 3/4"ø K-COPPER. UNIT 3 WILL UTILIZE THE EXISTING WATER SERVICE LINE FOR THE EXISTING HOUSE.
6. THE SEWER SERVICE LINES TO EACH UNIT SHALL BE 4"ø SDR 35 PVC PIPE WITH PITCH AS SHOWN ON THE PLAN (MINIMUM OF ¼" PER FOOT SHALL BE MAINTAINED). UNIT 3 WILL USE THE EXISTING SEWER SERVICE LINE FOR THE EXISTING HOUSE.
7. A ROAD OPENING PERMIT SHALL BE REQUIRED FOR THE INSTALLATION OF THE PROPOSED WATER AND SEWER SERVICES FOR THE NEW BUILDING. STREET CLOSURE FOR WATER AND SEWER SERVICE CONNECTIONS SHALL BE PERFORMED IN ACCORDANCE WITH CITY OF BEACON REQUIREMENTS.
8. ALL EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION. THE PROPOSED DRIVEWAY SHALL HAVE A STABILIZED CONSTRUCTION ENTRANCE.
9. ROOF LEADER CONNECTIONS TO BE MINIMUM 4"ø PVC OR HDPE @ 2.0% MIN. AND DIRECTED TOWARDS THE PROPOSED LOCATION ON PLAN.
10. SUMP PUMP TO BE PROVIDED FOR FOOTING DRAINS. THE TYPE OF PUMP AND METHODS USED TO ENSURE PROPER DRAINAGE SHALL BE ACCEPTABLE TO THE CITY OF BEACON BUILDING DEPARTMENT. BACKFLOW PREVENTION DEVICES SHALL BE PLACED ON THE FOOTING DRAINS TO PREVENT BACKFLOW INTO THE FOOTING DRAIN. SUMP PUMP DISCHARGE SHALL NOT ENTER THE SANITARY SEWER SYSTEM.
11. THE PROPOSED DRIVEWAY SIGHT DISTANCE SHALL BE IN COMPLIANCE WITH THE CITY OF BEACON'S 192-9(B) CODE AND THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION REQUIREMENTS. THE STATE UTILIZES THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS (AASHTO) GUIDELINES FOR INTERSECTION SIGHT DISTANCES. FOR ROADS WITH A SPEED LIMIT OF 30 MPH, AASHTO DESIGN TABLES CALL FOR A SIGHT DISTANCE OF 290 FEET TO THE LEFT AND 335 FEET TO THE RIGHT. THE MEASURED SIGHT DISTANCE IS AS FOLLOWS:

    UNITS 1 & 2: SLSD LEFT = ±270 FEET TO THE INTERSECTION WITH SOUTH CHESTNUT STREET. SLSD RIGHT = ±621 FEET TO THE INTERSECTION WITH TELLER AVENUE. STOPPING SIGHT DISTANCE (SSD) WAS OBSERVED TO BE ±250 FEET WHEN APPROACHING THE PROPOSED DRIVEWAY FROM THE INTERSECTION WITH SOUTH CHESTNUT STREET, AND ±601 FEET WHEN APPROACHING THE DRIVEWAY FROM THE INTERSECTION WITH TELLER AVENUE.

    UNITS 3 & 4: SLSD LEFT = ±310 FEET TO THE INTERSECTION WITH SOUTH CHESTNUT STREET. SLSD RIGHT = ±581 FEET TO THE INTERSECTION WITH TELLER AVENUE. STOPPING SIGHT DISTANCE (SSD) WAS OBSERVED TO BE ±290 FEET WHEN APPROACHING THE PROPOSED DRIVEWAY FROM THE INTERSECTION WITH SOUTH CHESTNUT STREET, AND ±561 FEET WHEN APPROACHING THE DRIVEWAY FROM THE INTERSECTION WITH TELLER AVENUE.

12. THE CONTRACTOR SHALL FIELD VERIFY THE LOCATIONS AND INVERTS OF ALL CATCH BASINS, STORM SEWER LINES, SANITARY MANHOLES, SEWER LINES, WATERLINES, AND UNDERGROUND UTILITY LINES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOT ASSUME THAT ALL LOCATIONS AS SHOWN ON THE PLAN ARE CORRECT. INVESTIGATIVE TEST PITS MAY BE REQUIRED TO VERIFY LOCATIONS.
13. BEDROCK SHALL REMOVED BY MECHANICAL MEANS. NO BLASTING SHALL BE PERMITTED WITHOUT APPROVAL FROM THE BUILDING DEPARTMENT.
14. THE APPLICANT/APPLICANT'S PLUMBER SHALL ACQUIRE WATER METERS AND MXU UNITS (SIGNAL SENDING AND RECEIVING UNIT) FOR THE AMI SYSTEM (ADVANCED METERING INFRASTRUCTURE) FROM THE CITY OF BEACON WATER DEPARTMENT. THE MXU UNIT SHALL BE INSTALLED ON THE EXTERIOR OF THE BUILDING AND SHALL BE LOCATED 2 TO 3 FEET ABOVE THE EXTERIOR GROUND ELEVATION.

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

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GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

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STATE OF NEW YORK MICHAEL A. BOSCHKOFF LICENSED PROFESSIONAL ENGINEER 084466

SEAL

HUDSON LAND DESIGN

HUDSON LAND DESIGN
PROFESSIONAL ENGINEERING P.C.
174 MAIN ST., BEACON, NEW YORK 12508
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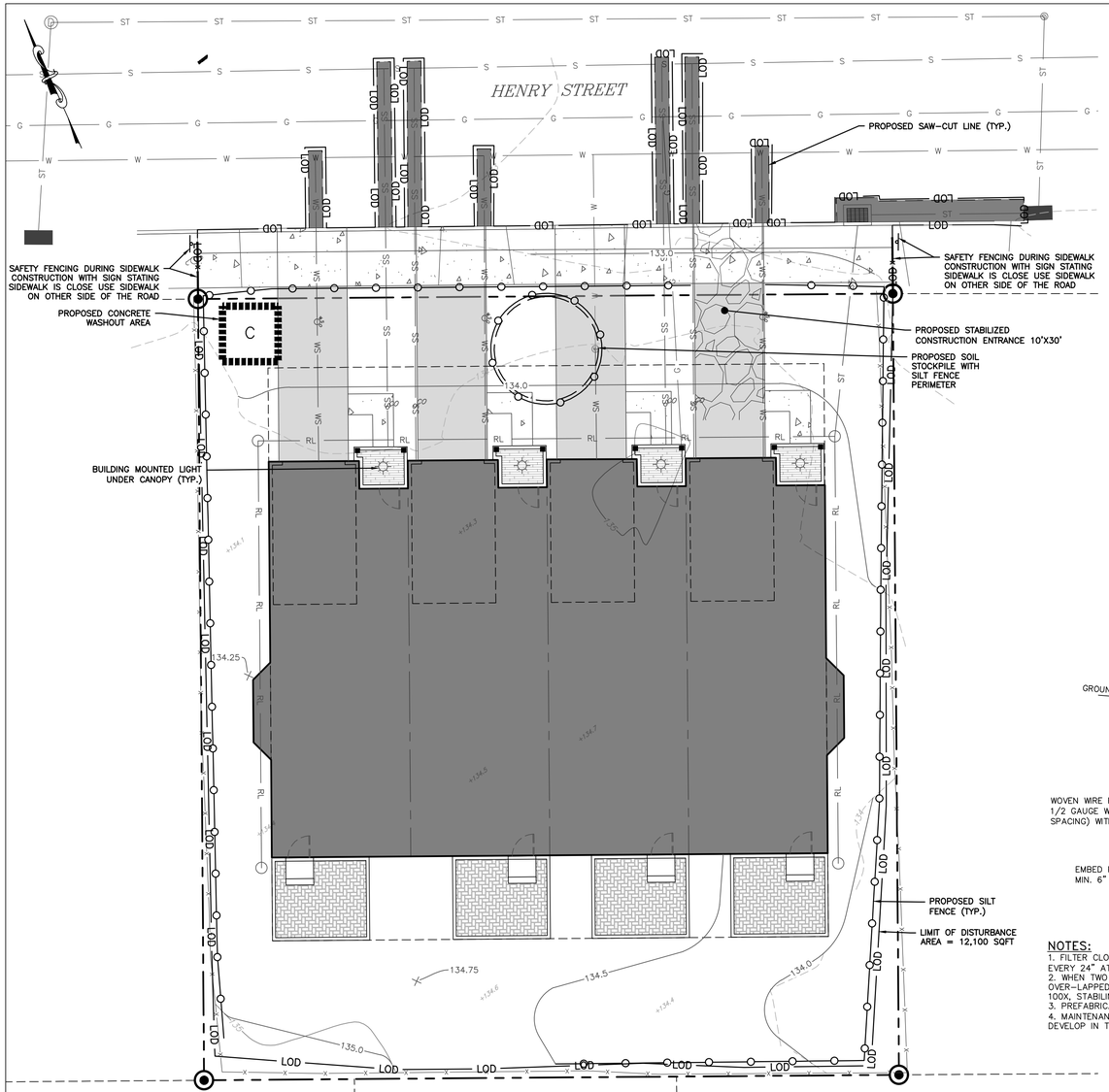
SITE PLAN

19 HENRY STREET

19 HENRY STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-36-955796

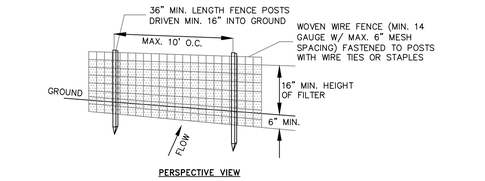
JOB #: 2024:014
DATE: 4/30/2024
SCALE: 1"=10"
TITLE: SP-1
SHEET: 3 OF 6

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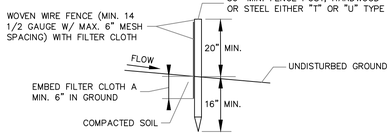


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- PROPOSED WATER VALVE
- PROPOSED SILT FENCE
- LOD PROPOSED LIMIT OF DISTURBANCE
- PROPOSED CATCH BASIN INLET PROTECTION
- PROPOSED CONSTRUCTION ENTRANCE



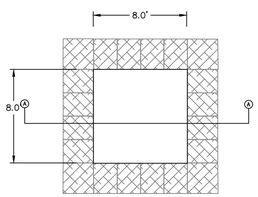
PERSPECTIVE VIEW



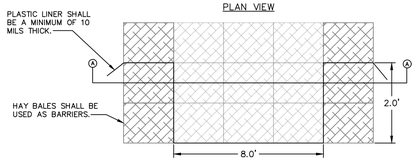
SECTION VIEW

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



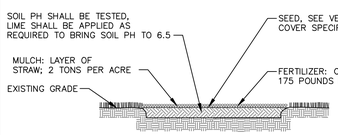
PLAN VIEW



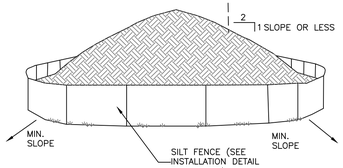
SECTION VIEW

NOTES:
1. WASHOUT STATION SHALL BE LOCATED 100' FROM ANY STORMWATER FEATURE ON SITE OR NATURAL WATERWAYS OR WETLANDS.
2. INSPECT WASHOUT STATION DAILY AND REPLACE PLASTIC LINER WHEN ANY RIPS OR TEARS ARE OBSERVED.
3. REPLACE WASHOUT STATION WHEN IT IS AT 75% OF ITS CAPACITY WITH HARDENED MATERIAL.
4. WATER ACCUMULATION IN WASHOUT AREA FROM RAINWATER SHALL BE PUMPED FROM THE STATION INTO A GRASSED AREA.

CONCRETE WASHOUT STATION DETAIL
NOT TO SCALE

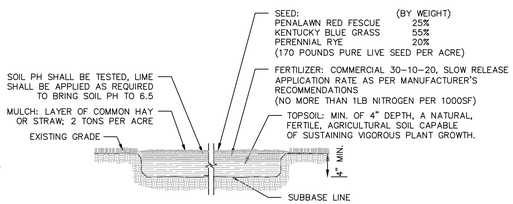


TEMPORARY SEEDING DETAIL
NOT TO SCALE



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



TOPSOIL SEED, FERTILIZER AND MULCH DETAIL
NOT TO SCALE

EROSION AND SEDIMENT CONTROL NOTES:

1. ALL EROSION CONTROL MEASURES EMPLOYED DURING THE CONSTRUCTION PROCESS SHALL BE INSPECTED BY THE CONTRACTOR IN ACCORDANCE WITH THE MAINTENANCE SCHEDULE. ALL EROSION CONTROL STRUCTURES SHALL BE REPAIRED AND MAINTAINED AS NECESSARY BY THE CONTRACTOR.
2. ALL STORMWATER MANAGEMENT STRUCTURES (E.G. CATCH BASINS) SHALL BE REGULARLY INSPECTED FOR SEDIMENT ACCUMULATIONS. CATCH BASINS SHALL BE CLEANED WHEN SEDIMENT DEPTH REACHES A MAXIMUM OF ONE-HALF THE AVAILABLE SUMP DEPTH.
3. ALL EROSION CONTROL INSTALLATION AND MAINTENANCE MEASURES SHALL MEET THE REQUIREMENTS OF THE NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL.
4. ANY PILE OF POTENTIALLY EROSIVE MATERIAL TEMPORARILY STOCKPILED ON THE SITE DURING THE CONSTRUCTION PROCESS SHALL BE LOCATED IN AN AREA AWAY FROM STORM DRAINAGE AND SHALL BE PROPERLY PROTECTED FROM EROSION BY A SURROUNDING SILT FENCE.
5. PERMANENT SEEDED AREAS FOR EROSION CONTROL SHALL BE IN ACCORDANCE WITH DETAIL AND SPECIFICATIONS ON THIS PLAN.
6. AREAS UNDERGOING CLEARING OR GRADING AND WHERE WORK IS DELAYED OR COMPLETED AND WILL NOT BE REDISTURBED FOR A PERIOD OF 21 DAYS OR MORE SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT VEGETATIVE COVER WITHIN 14 DAYS.
7. ON-SITE DUST CONTROL SHALL BE ACCOMPLISHED BY STANDARD METHODS OF LIGHTLY WATERING ALL EXPOSED SOIL AND RAPIDLY STABILIZING THE REGRADED AREAS WITH TOPSOIL, LOAM AND/OR SEEDING.
8. THE CITY ENGINEER AND PROJECT ENGINEER SHALL BE NOTIFIED NO LESS THAN 48 HOURS PRIOR TO THE START OF ANY SITE WORK, AND BY SUCH NOTIFICATION, SHALL BE PROVIDED WITH THE NAME AND TELEPHONE NUMBER OF THE GENERAL CONTRACTOR RESPONSIBLE FOR SUCH WORK.
9. THE CITY AND/OR ITS REPRESENTATIVES MAY INSPECT EROSION AND SEDIMENT CONTROL PRACTICES ON THE SITE DURING CONSTRUCTION AND RECOMMEND THAT THE CONTRACTOR INSTALL ADDITIONAL EROSION CONTROL MEASURES IF DEEMED NECESSARY TO PROTECT ANY UNDISTURBED AREAS OF THE SITE. ANY SUCH REQUESTS SHALL BE MADE DIRECTLY TO THE CONTRACTOR AND QUALIFIED PROFESSIONAL AND FOLLOWED UP WITH A WRITTEN NOTIFICATION TO THE DEVELOPER. IN ADDITION, THE PROJECT ENGINEER SHALL BE CONSULTED ON ANY SPECIAL ADDITIONS OR DELETIONS OF EROSION CONTROL MEASURES WARRANTED BY CHANGING FIELD CONDITIONS.
10. IF GROUNDWATER IS ENCOUNTERED DURING CONSTRUCTION ACTIVITIES, THE CONTRACTOR SHALL CONSTRUCT A DEWATERING PIT IN ACCORDANCE WITH NEW YORK STANDARDS AND SPECIFICATIONS FOR EROSION AND SEDIMENT CONTROL TO FILTER WATER FOR PUMPING TO A SUITABLE LOCATION.
11. WHEN ALL DISTURBED AREAS ARE STABLE, ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED.

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.

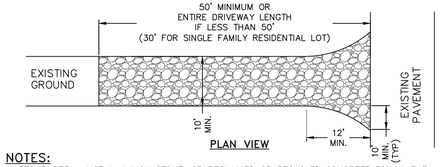
SILT FENCE:
INSPECT FOR DAMAGE EVERY SEVEN DAYS AND AFTER EVERY STORM EVENT WITH RAINFALL THAT EQUALS OR EXCEEDS 0.5 INCH. MAKE ALL REPAIRS IMMEDIATELY. REMOVE SEDIMENT FROM THE UP-SLOPE FACE OF THE FENCE BEFORE IT ACCUMULATES TO A HEIGHT EQUAL TO ONE-QUARTER THE HEIGHT OF THE FENCE. IF FENCE FABRIC 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.

INDIANA BAT PROTECTION NOTES:

1. TREE CLEARING SHALL BE RESTRICTED TO THE PERIOD BETWEEN OCTOBER 1 AND MARCH 31.
2. THE LIMITS OF DISTURBANCE SHALL BE DEMARCATED BY INSTALLING ORANGE CONSTRUCTION FENCE FOR THE GENERAL IMPROVEMENT AND INFRASTRUCTURE CONSTRUCTION ACTIVITIES AND FOR THE INDIVIDUAL LOT CONSTRUCTION. THESE LIMITS SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION.
3. DUST CONTROL DURING CONSTRUCTION SHALL BE IMPLEMENTED. THIS INCLUDES USE OF CONSTRUCTION ENTRANCES, APPLYING LIGHT WATER, AND ESTABLISHING VEGETATION.
4. STREET LIGHTS ARE NOT PERMITTED. RESIDENTIAL LIGHTING SHALL BE DIRECTED DOWNWARD TO REDUCE IMPACTS TO BATS FORAGING FOR FOOD.



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 LARGE COMMERCIAL OF RESIDENTIAL 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

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
1	6/25/24	PER CITY COMMENTS	CMB				

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

Dig Safely. New York. Call 811 before you dig

STATE OF NEW YORK MICHAEL A. BIGENHO 098456 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

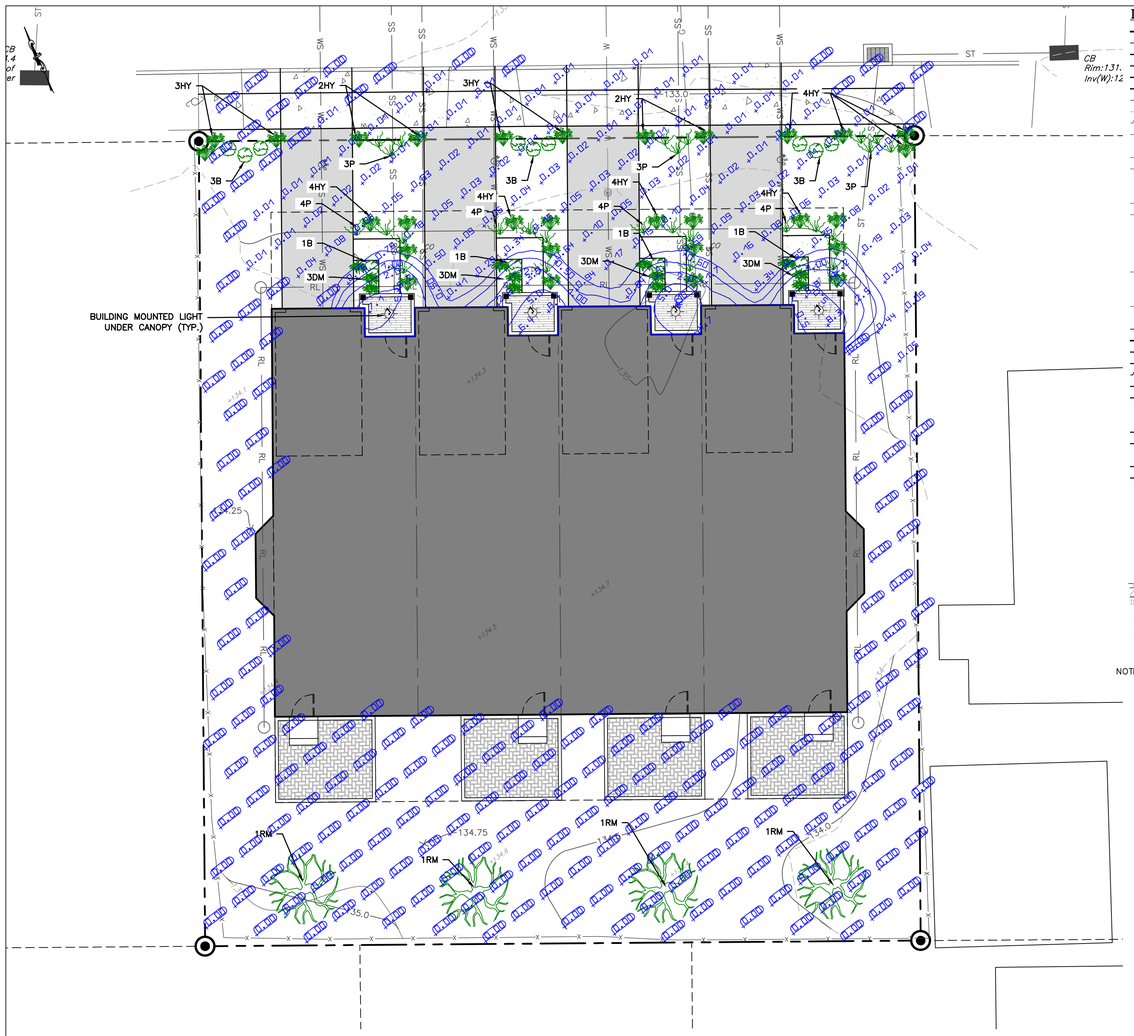
EROSION & SEDIMENT CONTROL PLAN

19 HENRY STREET

19 HENRY STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-36-955796

JOB #:	2024:014
DATE:	4/30/2024
SCALE:	1"=10"
TITLE:	ESC-1
SHEET:	4 OF 6

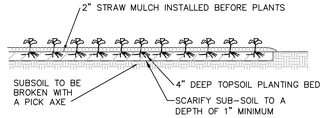
UNAUTHORIZED ALTERATIONS OR ADDITIONS TO THIS DRAWING IS A VIOLATION OF SECTION 7209.2 OF THE NEW YORK EDUCATION LAW



LANDSCAPE & LIGHTING PLAN
SCALE: 1" = 10'

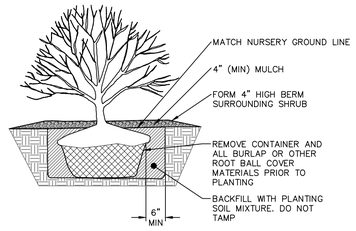
LEGEND:

- EXISTING PROPERTY LINE
- ADJOINING PROPERTY LINE
- EXISTING EASEMENT LINE
- EXISTING STREAM
- EXISTING WETLAND BOUNDARY
- 100' WETLAND BUFFER
- EXISTING MAJOR CONTOUR
- EXISTING MINOR CONTOUR
- EXISTING TREE LINE
- EXISTING OVER HEAD WIRE
- EXISTING UTILITY POLE
- EXISTING SEWER SERVICE LINE
- EXISTING SEWER LINE
- EXISTING SEWER MANHOLE
- EXISTING SEWER CLEAN OUT
- EXISTING WATER LINE
- 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
- EXISTING GAS LINE
- PROPOSED PROPERTY LINE
- PROPOSED SET BACK LINE
- PROPOSED MAJOR CONTOUR
- PROPOSED MINOR CONTOUR
- PROPOSED EASEMENT
- PROPOSED TREE LINE
- PROPOSED SEWER LINE
- PROPOSED SEWER SERVICE LINE
- PROPOSED SEWER MANHOLE
- PROPOSED SEWER CLEAN OUT
- PROPOSED STORM WATER LINE
- PROPOSED ROOF LEADER LINE
- PROPOSED ROOF LEADER
- PROPOSED WATER LINE
- PROPOSED WATER SERVICE LINE
- PROPOSED WELL
- PROPOSED HYDRANT
- PROPOSED WATER SHUT OFF VALVE
- PROPOSED WATER VALVE



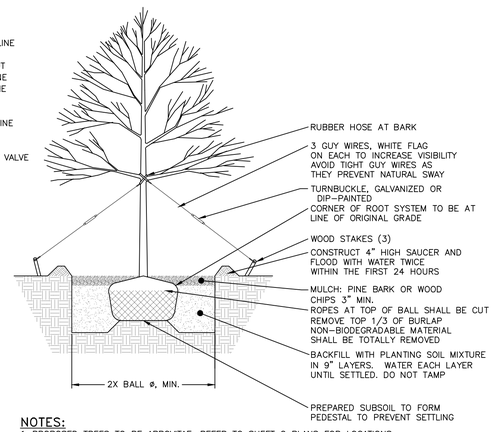
NOTES:
1. HERBACEOUS PLANTS SHOULD BE PEAT POT GROWN. PLANT PLUG WITH PEAT POT INTACT.
2. REMOVE ALL UNDESIRABLE PLANTS OR WEEDY VEGETATION FROM THE PLANTING BED.
3. HERBICIDES SHALL NOT BE USED TO REMOVE EXISTING WEED GROWTH
4. PREPARE BED BY TILLING THE SOIL ONE INCH DEEP 5 TO 7 DAYS AFTER A RAINFALL EVENT. THEN PREPARE PLANTING SOIL.
5. PLANTING SHALL TAKE PLACE IMMEDIATELY AFTER SOIL PREPARATION. IF NECESSARY, UTILIZE JUTE NETTING TO STABILIZE SOIL UNTIL PLANTING CAN BE ACCOMPLISHED.

PLUG PLANTING DETAIL
NOT TO SCALE



NOTE
1. WATER PER NURSERY SPECIFICATIONS IMMEDIATELY FOLLOWING PLANTING.
2. DETAIL IS FOR BOTH BALL & BURLAPPED OR CONTAINERED SHRUBS.

SHRUB PLANTING DETAIL
NOT TO SCALE



NOTES:
1. PROPOSED TREES TO BE ARBOVITAE. REFER TO SHEET 2 PLANS FOR LOCATIONS.

TREE PLANTING DETAIL
NOT TO SCALE

LANDSCAPE PLANTINGS TABLE

KEY	QTY	BOTANICAL NAME	COMMON NAME	CALIPER	PLANT TIME
	4	ACER RUBRUM	RED MAPLE	6 FT HEIGHT	SPRING/FALL
	12	CAREX PENSYLVANICA	PENNSYLVANIA SEDGE	QUART	SPRING/FALL
	8	HYDRANGEA QUERCIFOLIA	OAKLEAF HYDRANGEA	2 GALLON	SPRING/FALL
	22	BUXUS SEMPERVIRENS	AMERICAN BOXWOOD	2 GALLON	SPRING/FALL
	10	POLYSTICHUM ACROSTICHOIDES	EVERGREEN CHRISTMAS FERN	2 GALLON	SPRING/FALL

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. TREES SHALL BE PLANTED CLEAR OF 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 PLANT TREES AND SHRUBS FROM MARCH 15 TO JUNE 1, AND FROM AUGUST 15 TO OCTOBER 30.
8. PROPOSED LANDSCAPING IN FRONT OF BUILDINGS SHALL BE PERENNIAL SHRUBS AND GRASSES THAT ARE NOT DEEP ROOTED SPECIES TO PREVENT INTRUSION WITH PROPOSED UNDERGROUND UTILITIES

LIGHTING NOTES:
1. ALL LIGHTING SHALL BE DARK SKY COMPLIANT WITH CUTOFF SHIELDS AS NOTED.
2. ANY UNWANTED GLARE ACROSS PROPERTY LINES WILL BE CORRECTED BY THE OWNER BY MODIFICATION OF THE LIGHTS AND/OR ADDITION OF SHIELDS.
3. ALL FIXTURES SHALL BE SET AT 0° TILT ANGLE.
4. EXISTING LIGHTING LEVELS ALONG HENRY STREET NOT MODELED.

CALCULATION SUMMARY						
Name	Parameter	Min	Max	Average	Min/average	Min/max
PROPERTY BOUNDARIES	Perpendicular Illuminance	0.00 fc	10.3 fc	0.27 fc	0.000	0.000

LUMINAIRE SCHEDULE									
INDEX	MANUFACTURER	NAME	ITEM NUMBER	COLOR TEMPERATURE	LUMINOUS FLUX	WATTS	CRI	QUANTITY	MOUNTING HEIGHT
1	WAC	AETHER ATOMIC	R1ASDL-WT(W-3000K)	3000K	824 lm	13 W	90	4	~8'

AETHER ATOMIC
R1ASDL, R1ASPL - Square Downlight



LUMINAIRE DETAIL
NOT TO SCALE

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
1	6/25/24	ADDED SHEET PER CITY COMMENTS	CMB				

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

Dig Safely. New York. Call 811 before you dig

STATE OF NEW YORK · MICHAEL A. BIGENHO · 084456 · 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

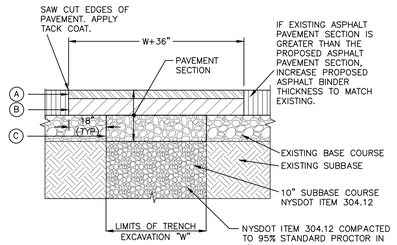
LANDSCAPE AND LIGHTING PLAN

19 HENRY STREET

19 HENRY STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954-36-955796

JOB #:	2024:014
DATE:	4/30/2024
SCALE:	1"=10"
TITLE:	LL-1
SHEET:	5 OF 6

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



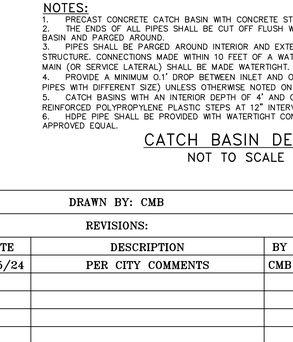
LEGEND

(A) 1.5" ASPHALT CONCRETE TOP COURSE– NYSDOT TYPE F1
(B) 3.0" ASPHALT CONCRETE BINDER COURSE– NYSDOT TYPE F9
(C) 3.0" ASPHALT BASE COURSE– NYSDOT TYPE F9

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.
3. TACK COAT IN ACCORDANCE WITH NYSDOT STANDARD SPEC.
4. FURNISH AND PLACE ASPHALT CONCRETE PAVEMENT AS SPECIFIED.

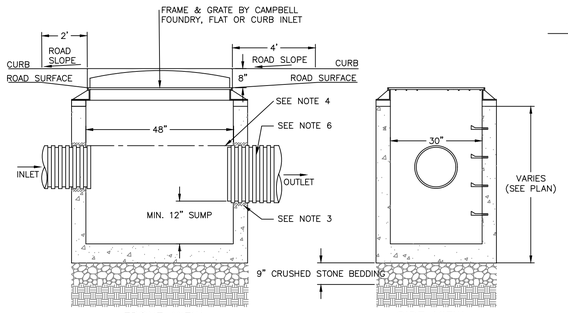
PAVEMENT RESTORATION DETAIL
NOT TO SCALE



NOTES:

1. CONCRETE COLLAR TO BE PROVIDED IN AREAS THAT ARE NOT PAVED. THE COLLAR SHALL BE 6" FROM THE COVER AND SHALL EXTEND 6" BELOW FINAL GRADE.
2. CURB STOP TO BE COMPRESSION TYPE BY MUELLER.
3. AREA AROUND CURB BOX TO BE BACKFILLED WITH GRAVELLY MATERIAL.

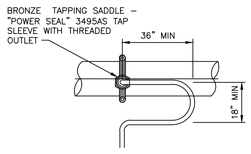
WATER SHUT–OFF VALVE DETAIL
NOT TO SCALE



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 O.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.

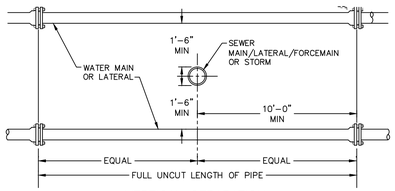
CATCH BASIN DETAIL
NOT TO SCALE



NOTES:

1. A MINIMUM 5' COVER SHALL BE PROVIDED ON THE WATER SERVICE LINE (CONDITIONED ON ACTUAL WATER MAIN DEPTH).
2. CORPORATION STOP TO BE COMPRESSION TYPE BY MUELLER.
3. WATER SERVICE LINE TO HAVE A 'GOOSENECK' NEAR CORPORATION STOP.
4. CORPORATION STOP TO BE INSTALLED IN THE UPPER HALF OF THE WATER MAIN AT AN ANGLE OF APPROXIMATELY 45° FROM HORIZONTAL.
5. THE CONTRACTOR SHALL INSTALL A FULL BODIED STAINLESS STEEL TAPPING SLEEVE AT THE PROPOSED WATER SERVICE LOCATION.

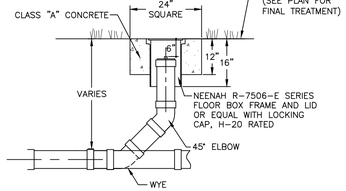
WATER SERVICE CONNECTION DETAIL
NOT TO SCALE



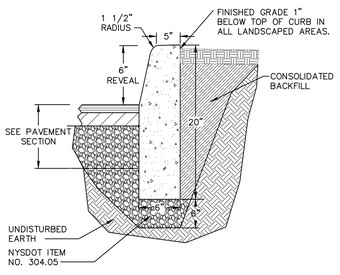
NOTE:

1. NO DEVIATION IN THE SEPARATION REQUIREMENTS WILL BE PERMITTED WITHOUT THE EXPRESS APPROVAL OF THE DUTCHESS COUNTY DEPARTMENT OF HEALTH AND THE CITY OF BEACON. CONCRETE ENCASEMENT OF WATERLINE OR OFFSETTING OF WATERLINE SHALL BE REQUIRED WHERE SEPARATION DISTANCES CANNOT BE MAINTAINED.

WATER LINE SEPARATION DETAIL
NOT TO SCALE



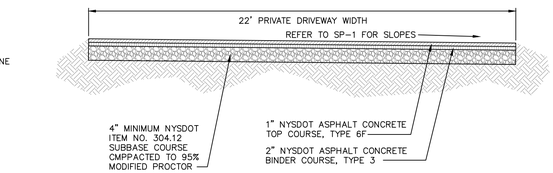
CLEANOUT DETAIL
NOT TO SCALE



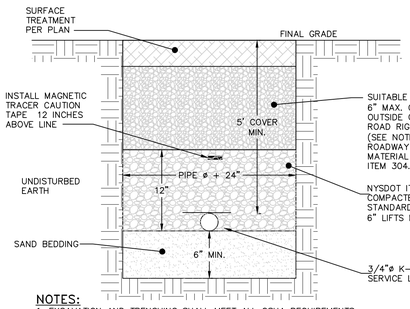
NOTES:

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.

CAST–IN–PLACE CONCRETE CURB DETAIL
NOT TO SCALE



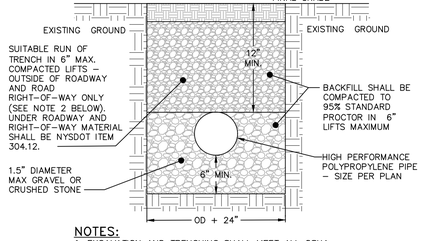
PAVED DRIVEWAY SECTION DETAIL
NOT TO SCALE



NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, ENLOGATED PARTICLES, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.
3. IN AREAS WHERE 5' COVER REQUIREMENT CANNOT BE MET, THE CONTRACTOR SHALL PROVIDE PIPE INSULATION TO PREVENT FREEZING.
4. IF WATER SERVICE AND SEWER SERVICE LINE CROSSINGS ARE NEEDED, PROVIDE 18" OF VERTICAL SEPARATION

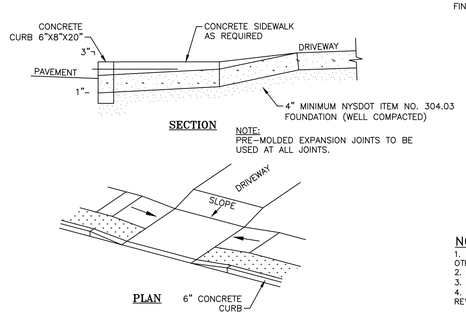
WATER SERVICE LINE TRENCH DETAIL
NOT TO SCALE



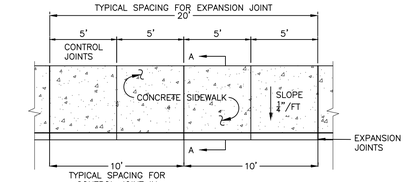
NOTES:

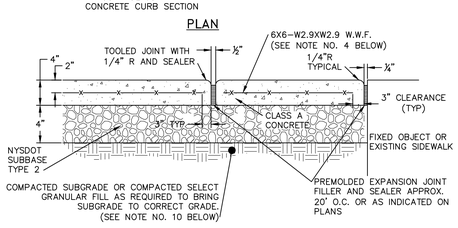
1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.

STORM LINE TRENCH DETAIL
NOT TO SCALE

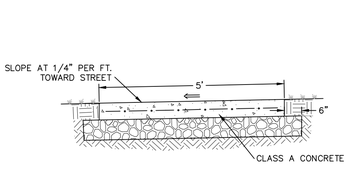


DRIVEWAY ENTRANCE DETAIL
NOT TO SCALE

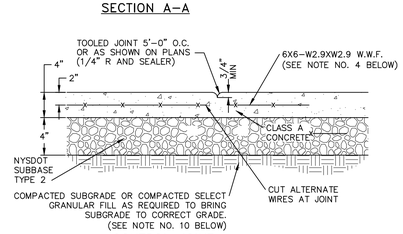




EXPANSION JOINT



SECTION A–A

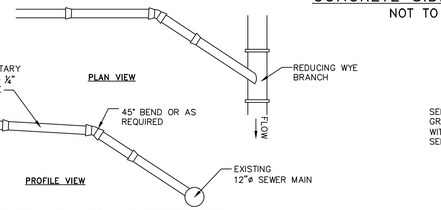


CONTROL JOINT

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, LATEST REVISION.
3. ALL CONCRETE SHALL BE 3,500 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 MANUFACTURER'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.

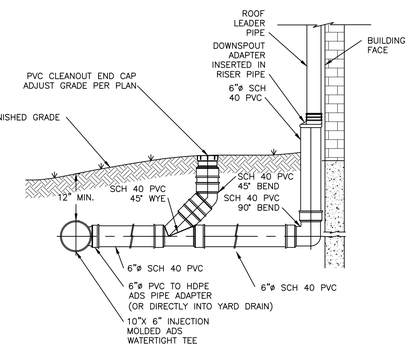
CONCRETE SIDEWALK DETAIL
NOT TO SCALE



NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.
3. TAPPING SADDLE FOR CONNECTION OF THE PROPOSED SERVICE LINE TO THE EXISTING SEWER MAIN TO BE A 4" PREDCO HUB TAP SADDLE – MODEL #HTS4/E.

SANITARY SEWER SERVICE CONNECTION DETAIL
NOT TO SCALE



NOTES:

1. ALL ROOF LEADER PIPES SHALL BE 6"ø SCH 40 PVC @ 2.0% SLOPE MIN. UNLESS SPECIFIED OTHERWISE.
2. PVC JOINT CONNECTIONS SHALL BE MADE WITH PVC CEMENT.
3. ROOF LEADER HEADER PIPES SHALL BE 10"ø HDPE PIPE.
4. SUBSTITUTIONS OF PIPE MATERIAL SHALL BE BROUGHT TO THE DESIGN ENGINEER'S ATTENTION FOR REVIEW.

ROOF LEADER CONNECTION DETAIL
NOT TO SCALE

NOTES:

1. EXCAVATION AND TRENCHING SHALL MEET ALL OSHA REQUIREMENTS.
2. SUITABLE RUN OF TRENCH SHALL NOT INCLUDE FROZEN MATERIALS, DEBRIS, ORGANIC MATERIALS, LARGE STONES OR OTHER UNSUITABLE MATERIALS. IF THE RUN OF TRENCH MATERIAL IS FOUND TO BE UNSUITABLE, A SUITABLE BACKFILL MATERIAL SHALL BE IMPORTED AND USED.

SANITARY SEWER SERVICE LINE TRENCH DETAIL
NOT TO SCALE

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
1	6/25/24	PER CITY COMMENTS	CMB				

GRAPHIC SCALE
10 0 5 10 20 40
(IN FEET)
1 inch = 10 ft.

Dig Safely. New York. Call 811 before you dig

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

19 HENRY STREET

19 HENRY STREET
CITY OF BEACON
DUTCHESS COUNTY, NEW YORK
TAX ID: 5954–36–955796

JOB #:	2024:014
DATE:	4/30/2024
SCALE:	AS SHOWN
TITLE:	CD–1
SHEET:	6 OF 6

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

KARC
PLANNING CONSULTANTS, INC.

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

FR: KARC Planning Consultants, Inc.

DATE: July 5, 2024

RE: 19 Henry Street Site Plan, Lori Joseph Builders, Inc.

I have reviewed the following revised materials regarding the proposed construction of a 4-unit townhouse development at 19 Henry Street:

- Cover letter by Taylor Palmer of Cuddy + Feder, dated June 25, 2024
- Response to Comments Memorandum by Hudson Land Design, dated June 25, 2024
- Response to Comments by Day Stokosa Engineering, dated June 25, 2024
- Infiltration and Inflow Report by Hudson land Design, dated June 25, 2024
- Site Plan Set (6 sheets) by Hudson Land Design, dated April 30, 2024, revised June 25, 2024
- Elevations (1 sheet) by Day Stokosa Engineering, undated

Project Description:

The applicant is proposing to develop four (4) attached two (2)-story townhouses with a total of four (4) residential units. Each unit comprises 900 sq. ft. of living space and a one-car garage. The 0.26-acre site is currently improved with a single-family residence. The parcel is located in the Transitional (T) District and abuts properties in the R 1-5 and CMS Zoning Districts. The action as described appears to be an Unlisted Action with regards to SEQR.

Comments & Recommendations:

1. **Lot Area.** According to the Schedule of Dimensional Regulations, the residential capacity of a site in the T district is one-half the minimum lot size area per dwelling unit as the least restrictive adjoining residential district. The adjoining residential district is R1-5 with a 5,000 square foot requirement for each unit, so the proposed development requires 2,500 square feet per unit. The proposal for 4 units on a lot of 11,325 sq. ft. meets this requirement.

2. **Front Yard.** The minimum required front yard within the T District is 10 feet. The project as currently proposed has a front yard setback of 21.5 feet. This setback has been reduced slightly from the originally proposed 26 feet (site plan dated 4/30/2024), a reduction of 4.5 feet. The applicant's cover letter states that the "townhouses have been shifted 10 feet closer to Henry Street." The Planning Board should consider if the depth of the front yard and driveways can be further reduced to bring the proposed development and "street wall" closer to the sidewalk along Henry Street.

3. **Parking Requirement.** If the project is not proposed to be subdivided or operated as a condominium development, I believe the proposed development would be classified as a multifamily dwelling and subject to the parking requirements of that use. Multifamily dwellings required 1 space for each dwelling unit, plus 1/4th space for each bedroom. Floorplans identifying the proposed bedroom count for each unit should be provided to enable calculation of required parking.
    - The Planning Board previously inquired if garages and front yard parking are permitted in the T District. Section 223-26(c)(1) states that "In any residence district, no off-street parking facility shall be developed in any required front yard or in any required side or rear yard adjacent to a street line or in any other side or rear yard within five feet of the lot line." Similar restrictions are also applied in the neighboring CMS District. However, the T District is considered a commercial district and is not subject to such regulations.

4. **Driveways.** Per Section 223-26(I), for reasons of traffic and pedestrian safety, all new driveways shall comply with all requirements of Chapter 100, Driveways, and shall be subject to the approval of the Planning Board in cases when a use is subject to site development plan approval. A single driveway accessing consolidated parking in the rear of the lot would be ideal in this walkable, downtown neighborhood. The Planning Board should discuss with the applicant whether this option has been considered and its feasibility.

5. **Architectural Elevations.** Elevations of all sides of the proposed structure with dimensions and material callouts should be provided. The proposed development is subject to the architectural review provisions of Chapter 86.

6. **Bay Windows.** Section 223-13(c) permits projecting horizontal architectural features such as bay windows to project up to 3 feet into any required yard. The section requires that "the sum of any bay window projections on any wall shall not exceed ¼ the length of any said wall." Based on the graphic scale provided the proposed bay windows appear to comply, but the applicant should provide dimensions or a site plan not to confirm compliance.

7. **Unit Layout.** Section 223-14(d) requires that all rooms occupied for residential purposes must have access to light and air from a street or yard, our a "court" shall be provided. Layouts of the two internal townhouse units shall be provided to confirm compliance with this section of the zoning code.

8. **Landscaping Plan.** The proposed landscaping plan identifies individual trees and shrubs but does not indicate the landscaping intent for side yards or areas surrounding the proposed patios. If these areas are intended to be grass, that should be noted on the site plan. Pedestrian paths along the side yards should be noted, if any, as well as proposed fencing or divisions between rear yard patio spaces for each unit.

9. **Refuse Disposal.** The location of refuse disposal and storage should be noted on the site plan to confirm disposal units are screened from view and properly designed, per Section 223-14(c).

10. **Ownership and Subdivision**
    The T Zoning District permits both single-family attached dwellings (inclusive of townhouses) and multifamily dwellings. A townhouse development of this nature could be organized as single-family dwelling units on separate fee simple lots, condominium dwelling units on a shared lot, or multifamily rental units on a single lot. The applicant should identify the intended approach for property ownership to be reviewed by the Board's legal counsel.
    - Section 223-12(a) requires that "there shall be not more than one main building and its accessory building on one lot, except multifamily." If the proposed units are intended to be single-family for-sale homes, a subdivision plan is required.
    - The submission materials thus far have been evaluated as a multifamily development with 4 units under single ownership. If a different ownership model is proposed, additional code review will be required.

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, Applicant Attorney

LANC & TULLY
Engineering and Surveying, P.C.

June 30, 2024

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

RE: 19 Henry Street
Proposed Townhomes
Tax Nos. 5954-36-955796
City of Beacon

Dear Mr. Gunn:

My office has received the following regarding a townhouse building to be located at 19 Henry Street:

- Correspondence dated June 25, 2024, from Cuddy & Feder.
- Response correspondence dated June 25, 2024, from Hudson Land Design.
- Inflow and Infiltration (I&I) Investigation Report dated June 25, 2024, as prepared by Hudson Land Design.
- First Floor Plan & Elevations sheet as prepared Day/Stakosa Engineering, P.C.
- Plan set titled "19 Henry Street", with the latest revision date of June 25, 2024, as prepared by Hudson Land Design and consisting of the following drawings:
  - Sheet 1 of 6 – Cover Sheet
  - Sheet 2 of 6 – Existing Conditions & Removal Plan
  - Sheet 3 of 6 – Site Plan
  - Sheet 4 of 6 – Erosion & Sediment Control Plan
  - Sheet 5 of 6 – Landscape and Lighting Plan
  - Sheet 6 of 6 – Construction Details

The proposed project entails the demolition of the existing 1-story residential building and accessory structures, and the construction of four 2-story townhomes on the parcel located at 19 Henry Street. The 0.258± acre parcel is located in the "T" (Transitional) Zone, which does allow for multifamily dwellings.

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

General Comments:

1. What type of ownership is proposed for the townhomes? Will each of the units be owned/rented individually? Will there be a Homeowners Association, or a Condominium Association formed?

2. An Inflow & Infiltration (I&I) Study of the existing site and building was conducted by the applicant's engineer. The findings of the report note that there are 2 sump pumps in the basement that are connected to the City's sanitary sewer collection system. These sump pumps could contribute about 10,260 gallons of ground water per day when the ground water table is high and during long duration storm events. The report notes that these sump pumps will be disconnected and removed prior to the approval of the plans. This should be made a condition of the resolution for the project when the Planning Board allows for the drafting of the resolution and should also note that it is to be confirmed by the City of Beacon Building Department prior to the signing of the plans.

Sheet 3 of 5:

1. The sidewalk shall be replaced to the full width that is currently present along the street. As the existing curb and sidewalk are monolithic, the applicant will need to replace the existing curb and sidewalk with a new monolithic curb and sidewalk, unless otherwise approved by the Planning Board.

2. The existing sewer lateral within the sidewalk and roadway area shall be removed in its entirety. The sewer main shall be repaired with a JCM 108 Universal Clamp Coupling where the sewer lateral is removed from the existing sewer main. A construction detail shall be provided on the plans for the repair of the sewer line where the sewer lateral connection is removed.

3. There will be seven (7) new water and sewer service utility trenches to be excavated across Henry Street, one trench for the removal of the existing sewer lateral, and the installation of a catch basin and storm drainage piping within Henry Street. Given the amount of disturbance to occur to Henry Street, the plans shall note that Henry Street shall be milled and paved for its full width starting 10 feet to the west of the first utility trench and ending 10 feet to the east of the last utility trench, tack coated, and paved with a new asphaltic top course with a minimum thickness of 1 ½", once the trenches have been restored with binder course to match the existing pavement thickness.

4. As the proposed building will have a basement area that is to be serviced by a sump pump. The plan shall show where this sump pump shall discharge to.

5. As this has been presented as a townhouse structure, the building designer shall ensure that the interior walls separating the townhouses comply with Section R302.2 of the 2020 NYS Residential Code. If sprinkler systems are to be installed in each of the units, the water service lines shall be sized accordingly and may need to be increased in size.

6. The location of refuse units/storage shall be noted on the plans.

Sheet 5 of 5:

1. A monolithic concrete curb and sidewalk detail shall be added to the plan, unless the Planning Board approves the installation of the grass strip along the front of the project site.

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

City of Beacon Planning Board Agenda
07/09/2024

Title:

New Single-Family House – 144 Spring Valley Street

ATTACHMENTS

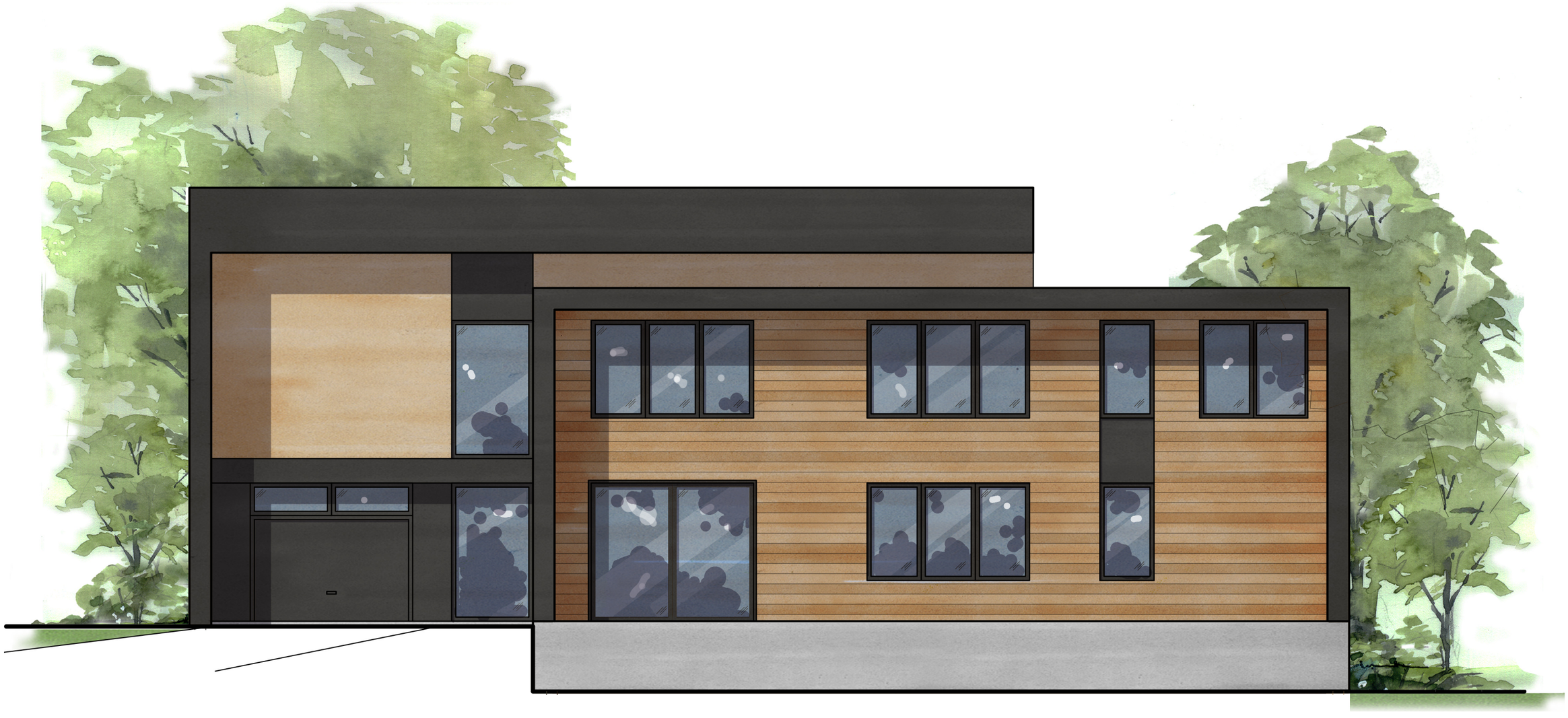
144 Spring Valley PB 7.9.24 ARB presentation.pdf

144 Spring Valley - Existing Street View

ARB submission PB 7/9/24



144 Spring Valley - Proposed Street View



144 Spring Valley - Proposed Materials/Colors



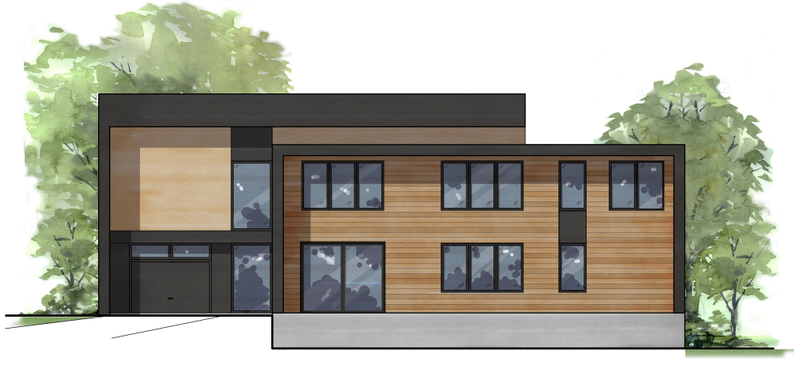
Volume 1:
4” Tongue & Groove Horizontal Clear Cedar Siding



Volume 2:
Fine Stucco Wall Texture in Beige



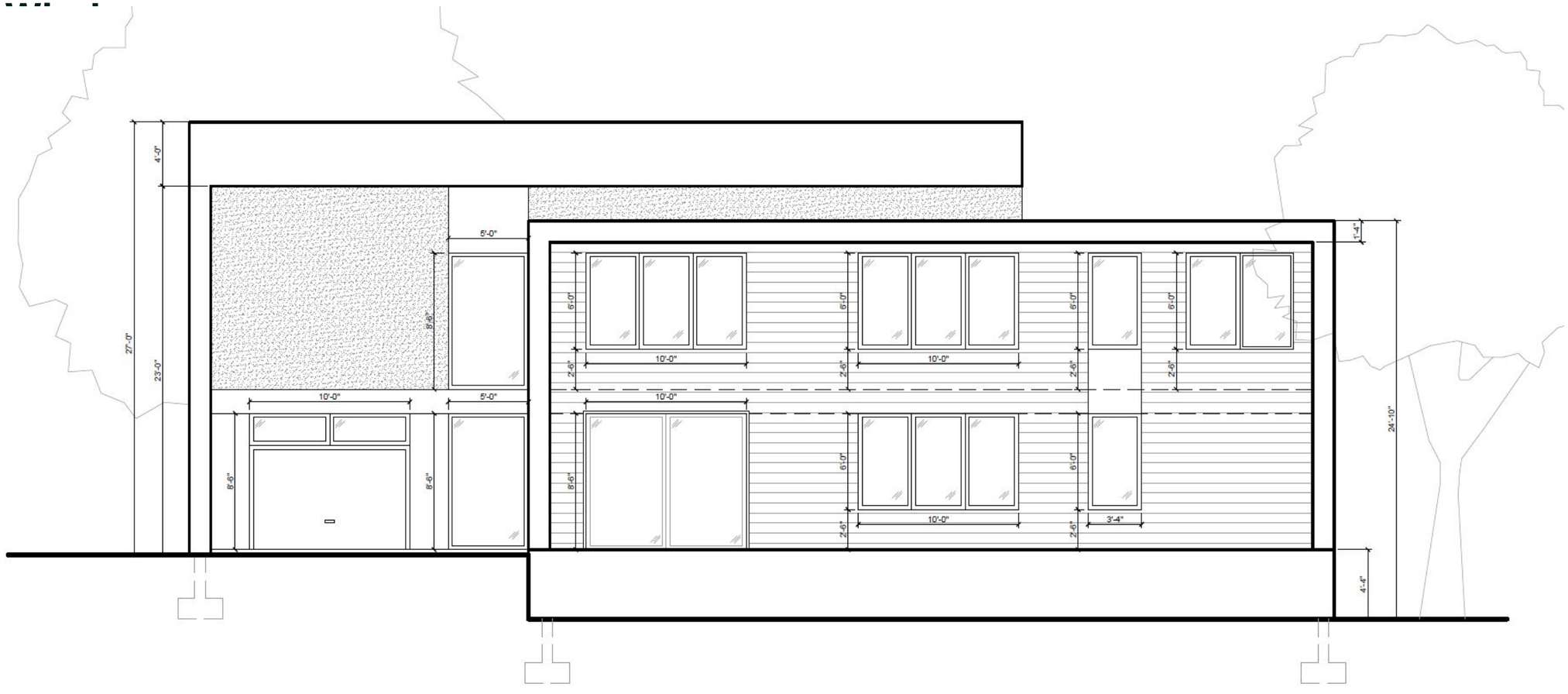
Flat Roof Edging:
Black Aluminum
(Same as Window Frames)



144 Spring Valley - Proposed Elevation

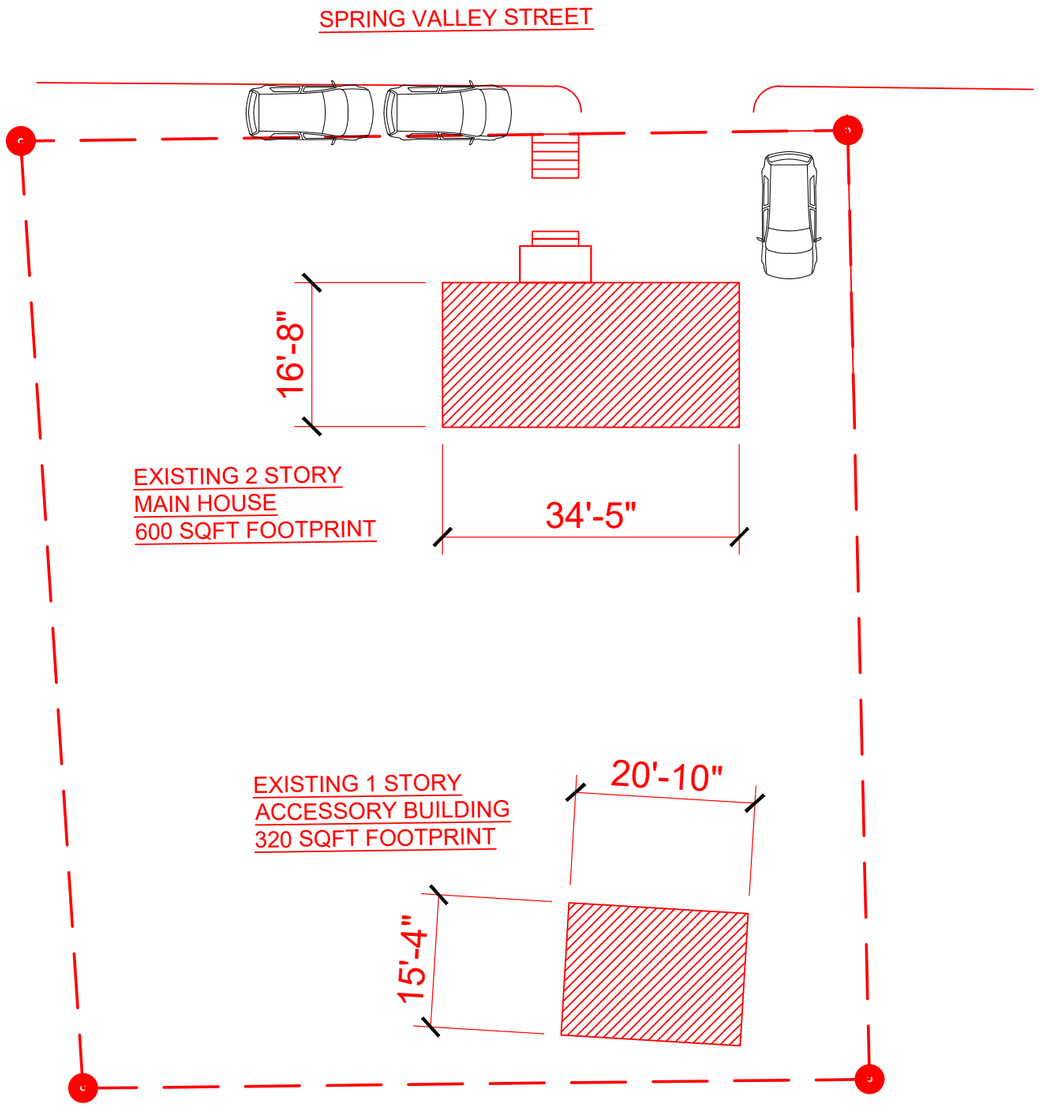
Concept - 2 Shifting Volumes
(1) Front Volume Height = 24’-10”
Fine Beige Siding w/ Black Flat Roof Trim & Black Windows

(2) Back Volume Height = 27’-0”
4” T&G Clear Horizontal Cedar Siding w/ Black Flat Roof Trim & Black

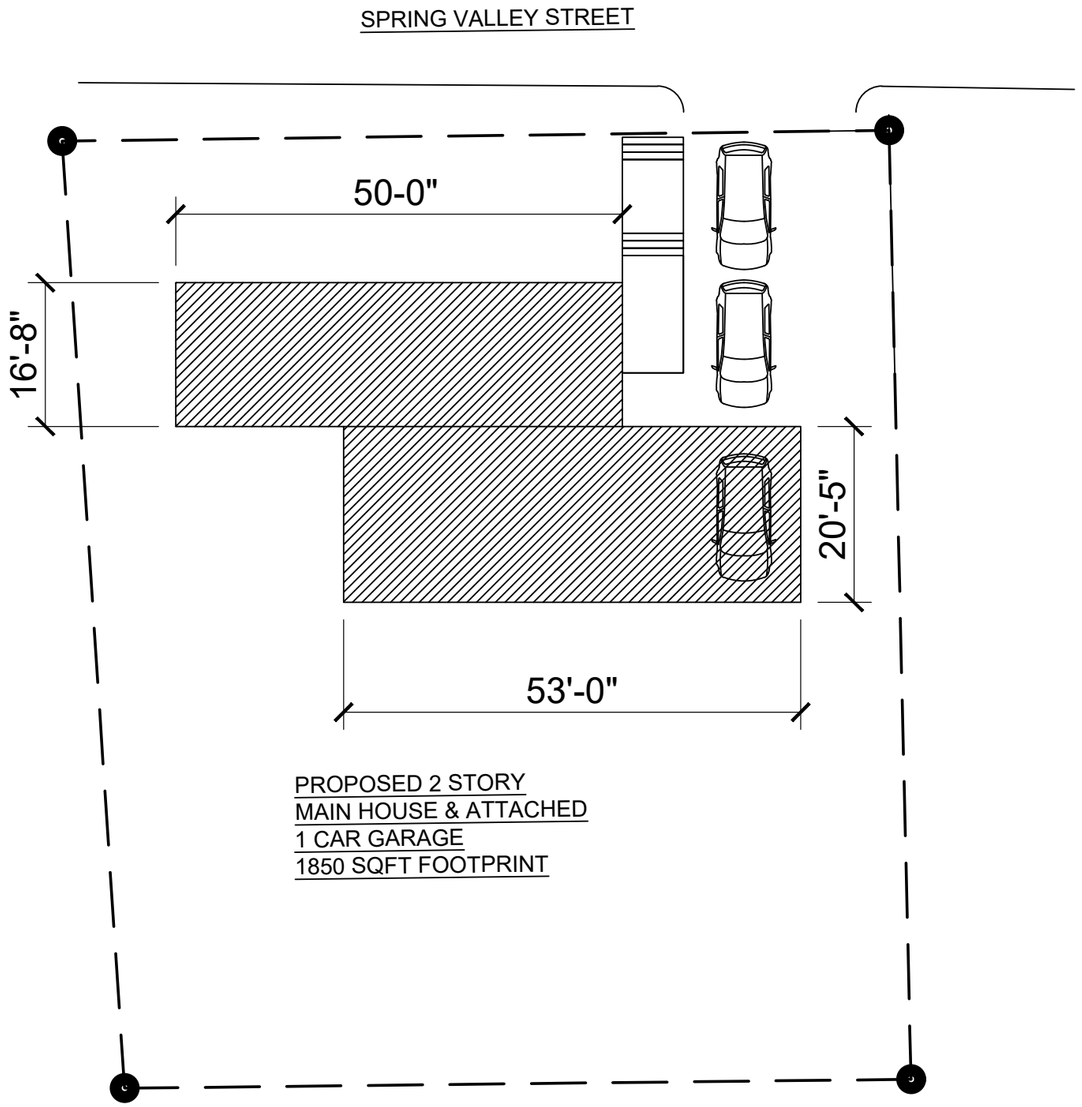


144 Spring Valley - Proposed Site

BEFORE (EXISTING)



AFTER (PROPOSED)



Existing Houses on the Street



Existing Houses on the Street



City of Beacon Planning Board Agenda
07/09/2024

Title:

Certificate of Appropriateness – 475 Main Street; Sign

ATTACHMENTS

475 Main PB 7.9.24 ARB app Sign.pdf

ARCHITECTURAL REVIEW BOARD APPLICATION

Date: June 17, 2024

Project Address: 475 Main Street, Beacon, NY, 12508

Project Architect/Engineer: N / A

Owner/Builder: 475 Main Main LLC

Contact Phone No.: 914-648-7660 Email: Michael@simonfoxproperties.

Approval Requested: X Certificate of Appropriateness (sign or façade change) _____ New Single-Family House

Color/Materials:

Siding: N / A

Roofing: N / A

Windows: Color: N / A Type: N / A

Trim: N / A

Garage Door: N / A

Stone/Brick: N / A



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)

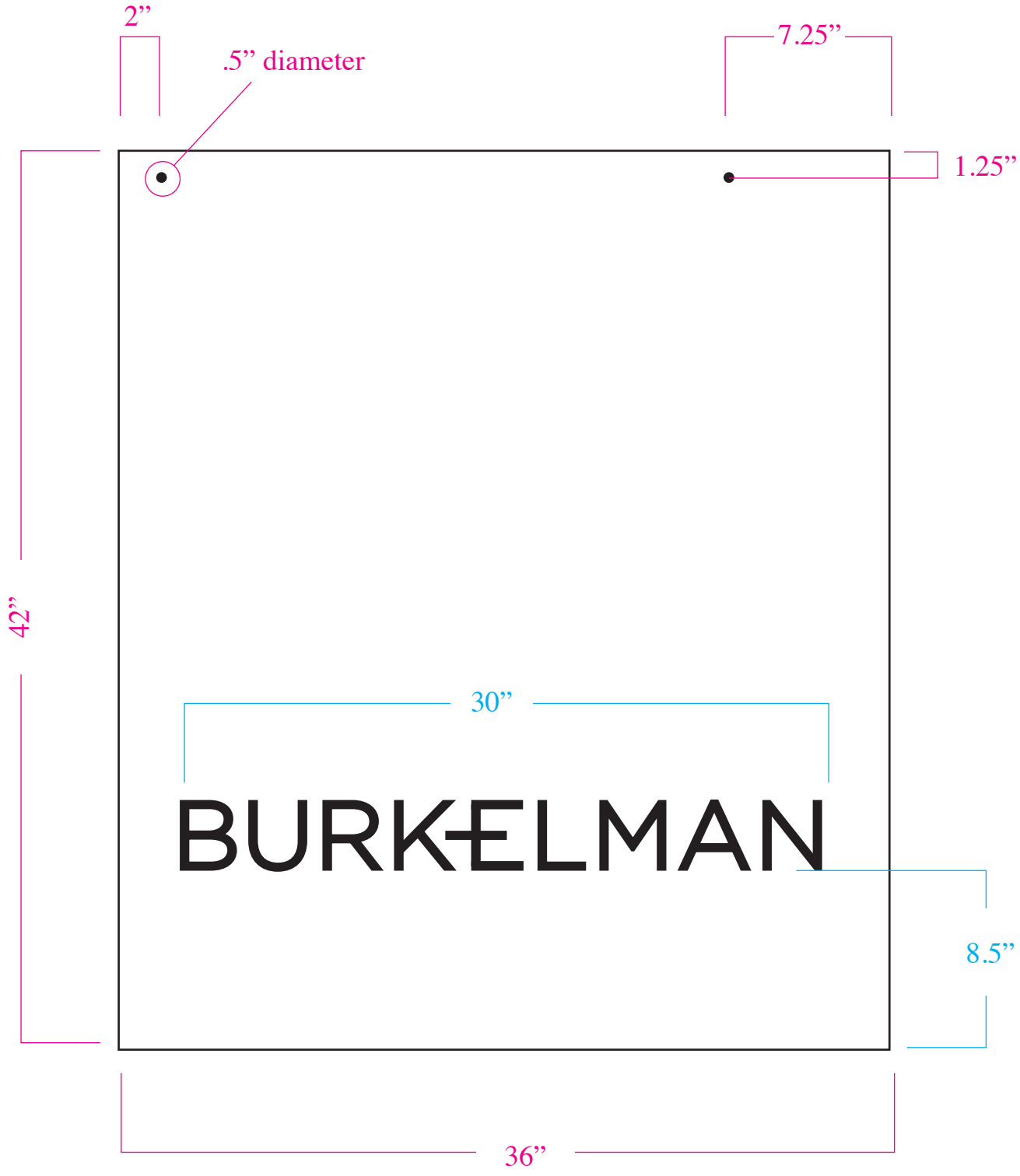
Subject to the following:

_____

_____

FEE: $100.00

BURKELMAN Store – Blade Sign
475 Main St.
Beacon, NY



A wood sign, painted white, with BURKELMAN logo rendered in black matte vinyl.
To be hung off existing building hardware. See pic on next page of previous sign.
Overall dimensions: 36” X 42” (10.5 ffffffff)





Previous blade sign hung with existing building hardware. New sign is exact same dimensions and materials.

BUILDING DEPARTMENT
City of Beacon

Approved: _____ **20** ____
Disapproved: _____ **20** ____

_____
Building Inspector

Application for Sign Permit

Date June 11, 2024

Address of Sign 475 Main Street, Beacon, NY 12508

PROPERTY OWNER

Name 475 BEACON MAIN, LLC Phone 914-648-7660
Address PO Box 247, Port Chester, NY 10573

BUSINESS OWNER

Name of Owner David Kimelman Phone 917 915 8652
Name of Business: Mr. Burkelman Inc.
Type of Business: Retail Store
Address 20 Pond Rd, Cold Spring, NY 10516

SIGN COMPANY

Name Fast Signs Phone (845) 209-1228
Address 1839 South Rd, Ste 2B, Wappingers Falls, NY 12590

ELECTRICIAN – (For Illuminated Signs)

Name N/A Phone _____
Address _____

TYPE OF SIGN:

_____ Ground ($25) _____ Wall ($15) _____ Temporary Sign ($10)

Sign Content: A wood sign, painted white, with BURKELMAN logo rendered in black matte vinyl.
Height of sign (if applicable) ~12' Sign Dimensions 36"W x 42"h
Type of materials to be used: Wood
Means of anchoring: Metal hardware attached to brick facade. see picture.

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.

_____
(Signature of Owner)

APPLICATION PROCESSING RESTRICTION LAW
Affidavit of Property Owner

Property Owner: 475 BEACON MAIN, LLC
(Applicant)
If owned by a corporation, partnership or organization please list names of persons holding over 5% interest in business.
n/a

List all properties in the City of Beacon that you hold a 5% interest in.
506-512 Main Street

Applicant Address: PO Box 24.7, Port Chester, NY 10573
Project Address: 475 Main St, Beacon, NY 12508
Project Tax Grid #: 6054-37-076730-0000
Type of Application: Sign for Retail Store

*** 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, Michael Bensimon, 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. X
2. Violations are pending on a parcel or parcels owned by me situated within the City of Beacon. _____
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 in the City of Beacon. _____
5. Special Assessments are outstanding on a parcel or parcels owned by me in the City of Beacon _____
6. ALL Special Assessments due to the City of Beacon on any parcel owned by me are current. X



Signature of Owner

Managing Member

Title if owner is corporation

City of Beacon Planning Board Agenda
07/09/2024

Title:

Certificate of Appropriateness – 263 Main Street;

ATTACHMENTS

263 Main PB 7.9.24 ARB app Sign.pdf

ARCHITECTURAL REVIEW BOARD APPLICATION

Date: 6/21/24

Project Address: 263 main st Beacon NY 12508

Project Architect/Engineer: N/A

Owner/Builder: 845 549 4278

Contact Phone No.: Vincent Satriano Email: Vsatriano@frontiernet.net

Approval Requested: ✓ Certificate of Appropriateness (sign or façade change) _____ New Single-Family House

Color/Materials:

Siding: N/A

Roofing: N/A

Windows: Color: N/A Type: N/A

Trim: N/A

Garage Door: N/A

Stone/Brick: N/A

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 → CITY OF BEACON



24 inches

ServiceMASTER Restore

24 inches

Double sided 6mm aluminum composite with digitally printed / UV gloss laminated vinyl applied.
Sign is to be mounted to existing bracket.

Customers Name: iFlooded Restoration / ServiceMaster Restore

FASTSIGNS
PH: 845-298-5600
FAX: 845-297-0105
FASTSIGNS.COM/455
1839 South Rd Suite 2B, Wappingers Falls, NY 12590
SIGNS AND GRAPHICS REMAIN THE PROPERTY OF FASTSIGNS UNTIL PAID IN FULL

PLEASE CHECK EACH:
- ☐ FONT
- ☐ COLOR
- ☐ SPELLING
- ☐ POSITIONING
- ☐ SIZE

SIGNATURE OF APPROVAL →

DATE: 5/22/24

File Name:

Order #: 76131

COLORS OF PRINT ARE NOT EXACT • CHANGES ARE CHARGED SEPARATELY

BUILDING DEPARTMENT
City of Beacon

Approved: _____ 20 ___
Disapproved: _____ 20 ___

_____
Building Inspector

Application for Sign Permit

Date 5/21/24

Address of Sign 263 main St Beacon NY 12508

PROPERTY OWNER

Name Vincent Sotriano Phone 845 549 4278
Address _____

BUSINESS OWNER

Name of Owner Bradley Bomen Phone 347 229 7759
Name of Business: ~~Construction~~ iFlooded Services inc DBA Servicemaster Restoration
Type of Business: construction
Address 263 main st Beacon NY 12508

SIGN COMPANY

Name Fast Signs wappingers Phone 845-298-5600
Address 1839 South road Wappingers Falls NY 12590

ELECTRICIAN – (For Illuminated Signs)

Name N/A Phone N/A
Address _____

TYPE OF SIGN:

_____ Ground ($25) ✓ Wall ($15) _____ Temporary Sign ($10)

Sign Content: Service Master Restore
Height of sign (if applicable) _____ Sign Dimensions 2' x 2'
Type of materials to be used: Plastic
Means of anchoring: Existing metal post that is already there

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.

_____
(Signature of Owner)

APPLICATION PROCESSING RESTRICTION LAW
Affidavit of Property Owner

Property Owner: 26 EAST MAIN STREET LLC
(Applicant)
If owned by a corporation, partnership or organization please list names of persons holding over 5% interest in business.

n/a

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

n/a

Applicant Address: 263 Main Street
Project Address: _____
Project Tax Grid #: _____
Type of Application: Sign : Brad Bonnen / Tenant

*** 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, Vincent Sativiano, 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. _____
3. ALL tax payments due to the City of Beacon are current. ✓
4. Tax delinquencies exist on a parcel or parcels owned by me in the City of Beacon. _____
5. Special Assessments are outstanding on a parcel or parcels owned by me in the City of Beacon _____
6. ALL Special Assessments due to the City of Beacon on any parcel owned by me are current. _____

845-549-4278

Signature of Owner

Member / Prop. Manager

Title if owner is corporation

City of Beacon Planning Board Agenda
07/09/2024

Title:

New Single-Family House – 925 Wolcott Avenue

ATTACHMENTS

925 Wolcott PB 7.9.24 ARB app.pdf

669

RECEIVED
MAY 31 2024
By MP

ARCHITECTURAL REVIEW BOARD APPLICATION

Date: 5/31/24

Project Address: 925 Wolcott Ave., Beacon NY 12508

Project Architect/Engineer: Michael Lockwood, Lockwood Architecture PLLC

Owner/Builder: Queen City Redevelopment Corp.

Contact Phone No.: 845 - 518 - 2847 Email: michael@faustdesignbuild.com

Approval Requested: ____ Certificate of Appropriateness (sign or façade change) ✓ New Single-Family House

Color/Materials:

Siding: Stucco (brick-front porch facade)

Roofing: Asphalt Shingle-Main Roof \ Raised seam metal - front Porch

Windows: Color: Black Type: Vinyl

Trim: Stucco

Garage Door: 2 doors - composite

Stone/Brick: Front porch Facade

Michael Faust

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

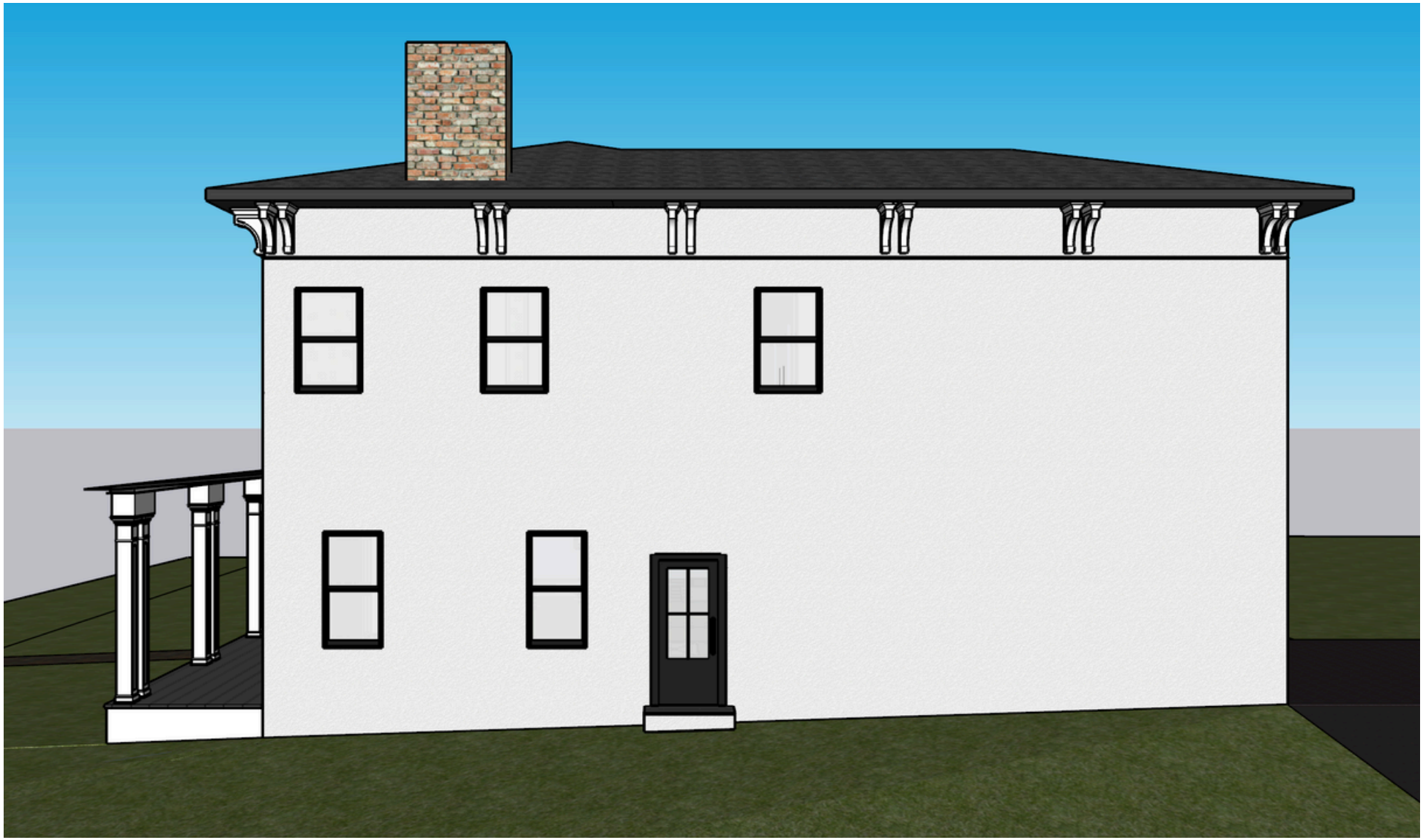


925 Wolcott Ave.



FAUST
DESIGN
BUILD

925 Wolcott Avenue
Front View Elevation from Wolcott Ave.



FAUST
DESIGN
BUILD

925 Wolcott Avenue
Front View Elevation from Sargent Ave.

FAUST

DESIGN
BUILD



Finishes

925 Wolcott Avenue

1. White washed brick on front porch
2. White Stucco exterior for remainder of house
3. Charcoal asphalt shingles on main roof
4. Black Metal porch roof
5. Black trims on all windows and doors
6. Charcoal composite decking on front porch
7. Square white columns on front porch



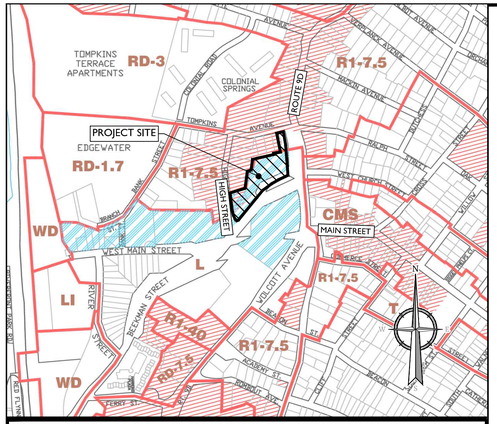
PRELIMINARY SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS: 5955-19-706012, 5954-26-689990, 5954-26-781983

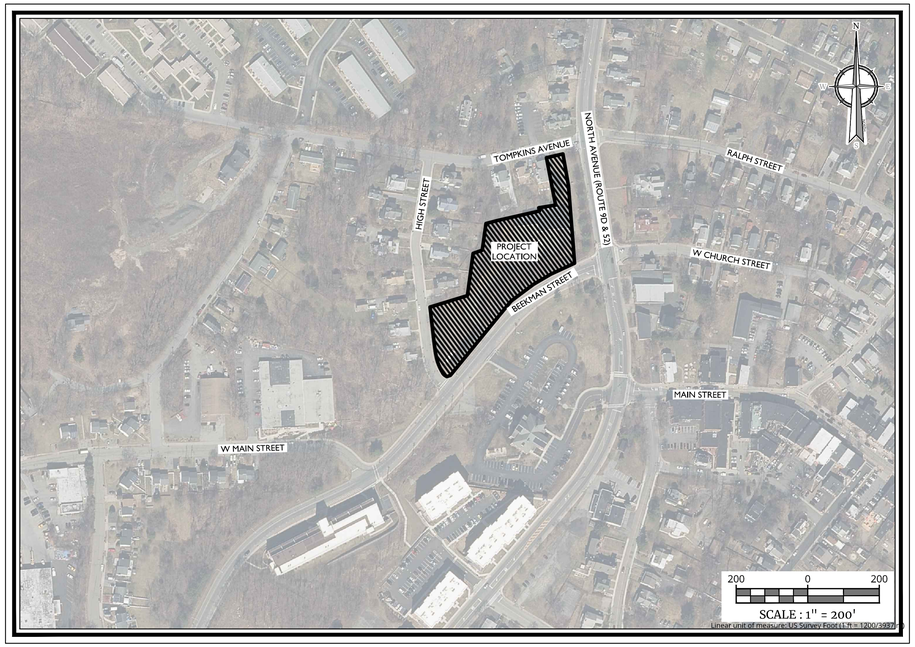
CITY OF BEACON
DUTCHESS COUNTY
NEW YORK STATE



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	6/25/2024
2	EXISTING CONDITIONS & SITE DEMOLITION PLAN	6/25/2024
3	TREE REMOVAL PLAN	6/25/2024
4	DIMENSION PLAN	6/25/2024
5-7	GRADING PLANS	6/25/2024
8-9	UTILITY PLANS	6/25/2024
10	SOIL EROSION & SEDIMENT CONTROL PLAN	6/25/2024
11	SOIL EROSION & SEDIMENT CONTROL DETAILS	6/25/2024
12	LANDSCAPE PLAN	6/25/2024
13	LIGHTING PLAN	6/25/2024
14-19	CONSTRUCTION DETAILS	6/25/2024

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 2.06 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 AND REVISED TO JUNE 06, 2024.
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. PRIOR TO COMMENCEMENT OF CONSTRUCTION ACTIVITIES, A PRE-CONSTRUCTION MEETING SHALL BE CONDUCTED IN ACCORDANCE WITH MS4'S 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.
12. 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 SUURFACE ANYWHERE IN ANY STATE
FOR STATE SPECIFIC DIRECT PHONE NUMBERS VISIT: WWW.CALL811.COM

REV	DATE	DRAWN BY	DESCRIPTION
1	06/25/24	KAS	REVISED PER PLANNING BOARD COMMENTS

Digitally signed by Justin E. Dates
Date: 2024.06.25 11:12:10-04'00'

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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-CVER

SHEET TITLE: COVER SHEET

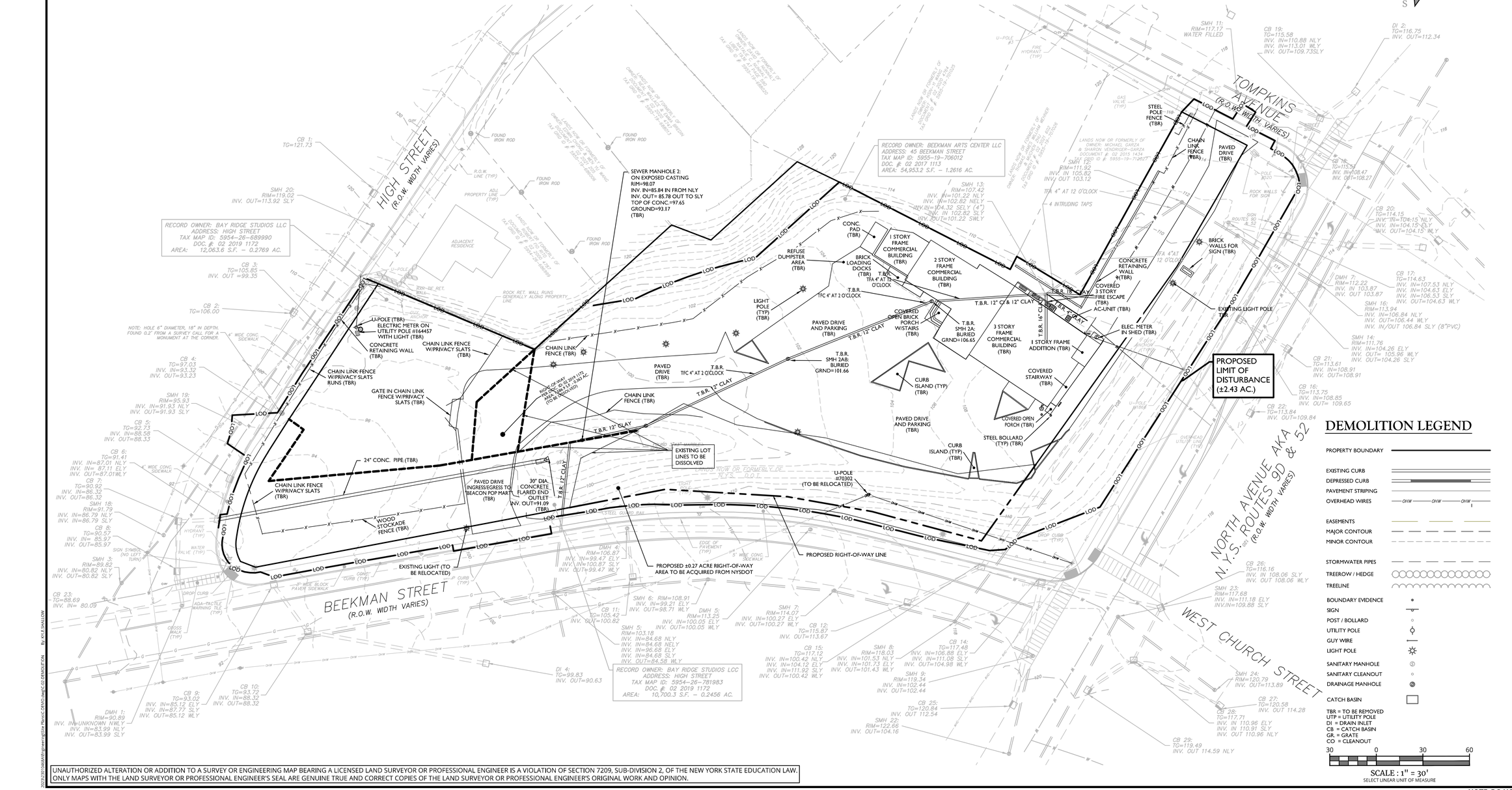
SHEET NUMBER: 01 of 19

By: IOLE.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.



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\23010468\Engineering\dwg\Site Plans\C-DEMO.dwg|C-DEMO, By: KYLE SMALLOW

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

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Doing Business as MASER CONSULTING

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
1	06/25/24	KAS	REVISED PER PLANNING BOARD COMMENTS

Digitally signed by Justin E. Dates
Date: 2024.06.25 11:12:37-04'00'

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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, ENGINEERING, CONSULTING
SURVEYING CT, P.C. DORG/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-DEMO		

SHEET TITLE:
EXISTING CONDITIONS & SITE DEMOLITION PLAN

SHEET NUMBER:
02 of 19

DEMOLITION NOTES:

TREE NUMBER	TREE SIZE IN INCHES AT DBH	COMMON NAME
1	9"	BRADFORD PEAR
2	23"	RED OAK
3	14"	WHITE PINE
4	19"	RED OAK
5	13"/9"	WHITE PINE
6	19.5"	RED OAK
7	8"	BRADFORD PEAR
8	7.5"	WHITE PINE
9	10"/8"	WHITE PINE
10	15.5"	RED OAK
11	7"	BRADFORD PEAR
12	18"	NORWAY MAPLE
13	15"	NORWAY MAPLE
14	26"	BLACK LOCUST
15	24"/18"	BLACK LOCUST
16	6"	BLACK CHERRY
17	20"	BLCK LOCUST
18	6"	BLACK LOCUST
19	6"	BLACK WALNUT
20	20"	NORWAY MAPLE
21	16"	NORWAY MAPLE
22	6"/8"	NORWAY MAPLE
23	15"	NORWAY MAPLE
24	8"	BLACK LOCUST
25	23"	NORWAY MAPLE
26	6"	NORWAY MAPLE

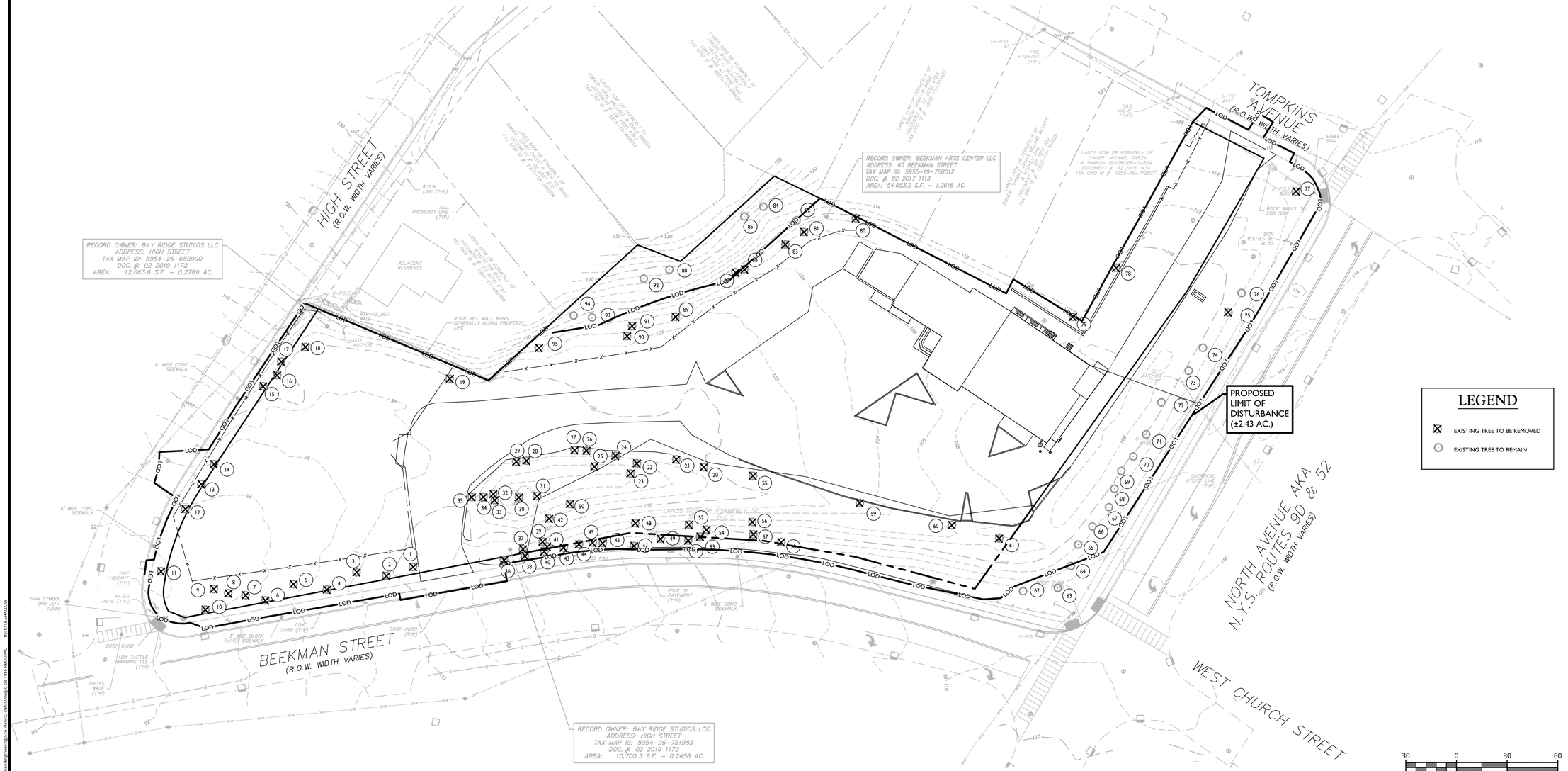
TREE NUMBER	TREE SIZE IN INCHES AT DBH	COMMON NAME
27	7"	NORWAY MAPLE
28	7"	NORWAY MAPLE
29	6"/7"	NORWAY MAPLE
30	23"	BIGTOOTH ASPEN
31	23"	BIGTOOTH ASPEN
32	11"	NORWAY MAPLE
33	12"	BOX ELDER
34	12"	NORWAY MAPLE
35	8"	MULBERRY
36	6"	NORWAY MAPLE
37	6"	NORWAY MAPLE
38	6"	NORWAY MAPLE
39	12"	RED OAK
40	6"	BOX ELDER
41	6"/8"	NORWAY MAPLE
42	6"	NORWAY MAPLE
43	12"	RED OAK
44	6"/6"	NORWAY MAPLE
45	6"/6"/7"	NORWAY MAPLE
46	14"	RED OAK
47	6"	NORWAY MAPLE
48	6"	NORWAY MAPLE
49	12"	BLACK CHERRY
50	11"/17"	BLACK LOCUST
51	8"	BLACK LOCUST
52	8"	NORWAY MAPLE

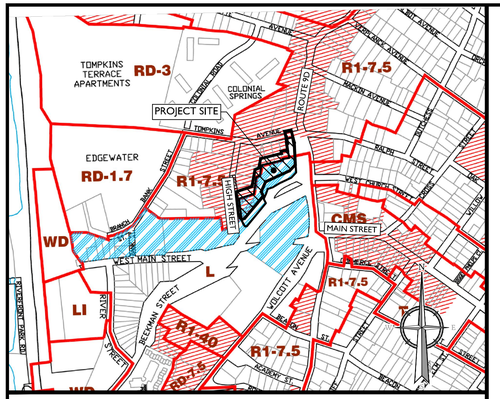
TREE NUMBER	TREE SIZE IN INCHES AT DBH	COMMON NAME
53	8"	BLACK LOCUST
54	9"	NORWAY MAPLE
55	16"	BLACK WALNUT
56	15"/11"/11"	BLACK LOCUST
57	6"	NORWAY MAPLE
58	13"	BLACK LOCUST
59	16"	CATALPLA
60	14"/14"/14"	SYCAMORE
61	6"	CATALPLA
62	15"	RED OAK
63	15"	WHITE PINE
64	16"	LITTLELEAD LINDEN
65	14"	WHITE PINE
66	11"	WHITE PINE
67	17"	LITTLELEAF LINDEN
68	11"	WHITE PINE
69	10"	WHITE PINE
70	17"	LITTLELEAF LINDEN
71	11"	WHITE PINE
72	15"	LITTLELEAF LINDEN
73	14"	WHITE PINE
74	16"	LITTLELEAF LIDNEN
75	10"	WHITE PINE
76	16"	LITTLELEAF LINDEN
77	18"	LITTLELEAF LINDEN
78	24"/20"	NORWAY SPRUCE

TREE NUMBER	TREE SIZE IN INCHES AT DBH	COMMON NAME
79	18"	BRADFORD PEAR
80	30"	NORWAY MAPLE
81	13"	CATALPA
82	6"	NORWAY MAPLE
83	6"/8"	NORWAY MAPLE
84	24"	NORWAY MAPLE
85	12"	NORWAY MAPLE
86	10"	NORWAY MAPLE
87	10"	BRADFORD LOCUST
88	17"	NORWAY MAPLE
89	6"	NORWAY MAPLE
90	30"	NORWAY MAPLE
91	6"	NORWAY MAPLE
92	24"	NORWAY MAPLE
93	12"/14"	NORWAY MAPLE
94	10"	NORWAY MAPLE
95	31"	NORWAY MAPLE

PLAN NOTE

1. IDENTIFICATION OF EXISTING TREE SPECIES AND LOCATION CONDUCTED BY COLLIERS ENGINEERING & DESIGN, JUNE 2024.
2. CONTRACTOR TO STAKE-OUT L.O.D. ALONG THE NORTHERN SIDE OF THE PROJECT SITE AND EXISTING TREES IN CLOSE PROXIMITY TO THE L.O.D. SHALL BE REVIEWED FOR POTENTIAL PRESERVATION.


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)
WEST CHURCH STREET
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
DOC. #: 02 2019 1172
AREA: 10,700.3 S.F. – 0.2456 AC.
PROPOSED LIMIT OF DISTURBANCE (±2.43 AC.)
LOD
ADJACENT RESIDENCE
LANDS NOW OR FORMERLY OF OWNER: MICHAEL GARZA & SHARON VENDRIGER-GARZA DOCUMENT # 02 2015 14,34 TAX GRID ID #: 5955-19-712627
LANDS NOW OR FORMERLY OF OWNER: THOMAS M. REILLY DOCUMENT # 02 2016 10526 TAX GRID ID #: 5955-19-705526



VICINITY MAP
SCALE: 1" = 500'
SOURCE: CITY OF BEACON ZONING MAP

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%	35.5%	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.	143 FT.	OK
FRONT YARD SETBACK	0 FT.	1 FT.	OK
SIDE YARD SETBACK	0 FT.	N/A	OK
REAR YARD SETBACK	25 FT.	46.7 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.	19.6 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
14,892 SF OF RETAIL SPACE = 45 SPACES

TOTAL PARKING REQUIRED = 109 SPACES

PROVIDED

TOTAL PARKING PROVIDED = 88 SPACES
(BASED ON SHARED PARKING ANALYSIS)

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: 10,566 SF OF RETAIL SPACE = 1 LOADING SPACE
BUILDING 2: 4,326 SF OF RETAIL SPACE = 0 LOADING SPACES

PROVIDED

TOTAL LOADING SPACES PROVIDED:
EAST BLDG: = 1 LOADING SPACE
WEST BLDG: = 1 LOADING SPACE

OWNER/APPLICANT:

BEEKMAN ARTS CENTER LLC (TAX ID: 5955-19-706012)
268 MAIN STREET
BEACON, NY 12508

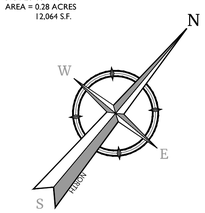
BAYRIDGE STUDIOS LLC (TAX ID: 5954-26-781983 & 5954-26-689990)
268 MAIN STREET
BEACON, NY 12508

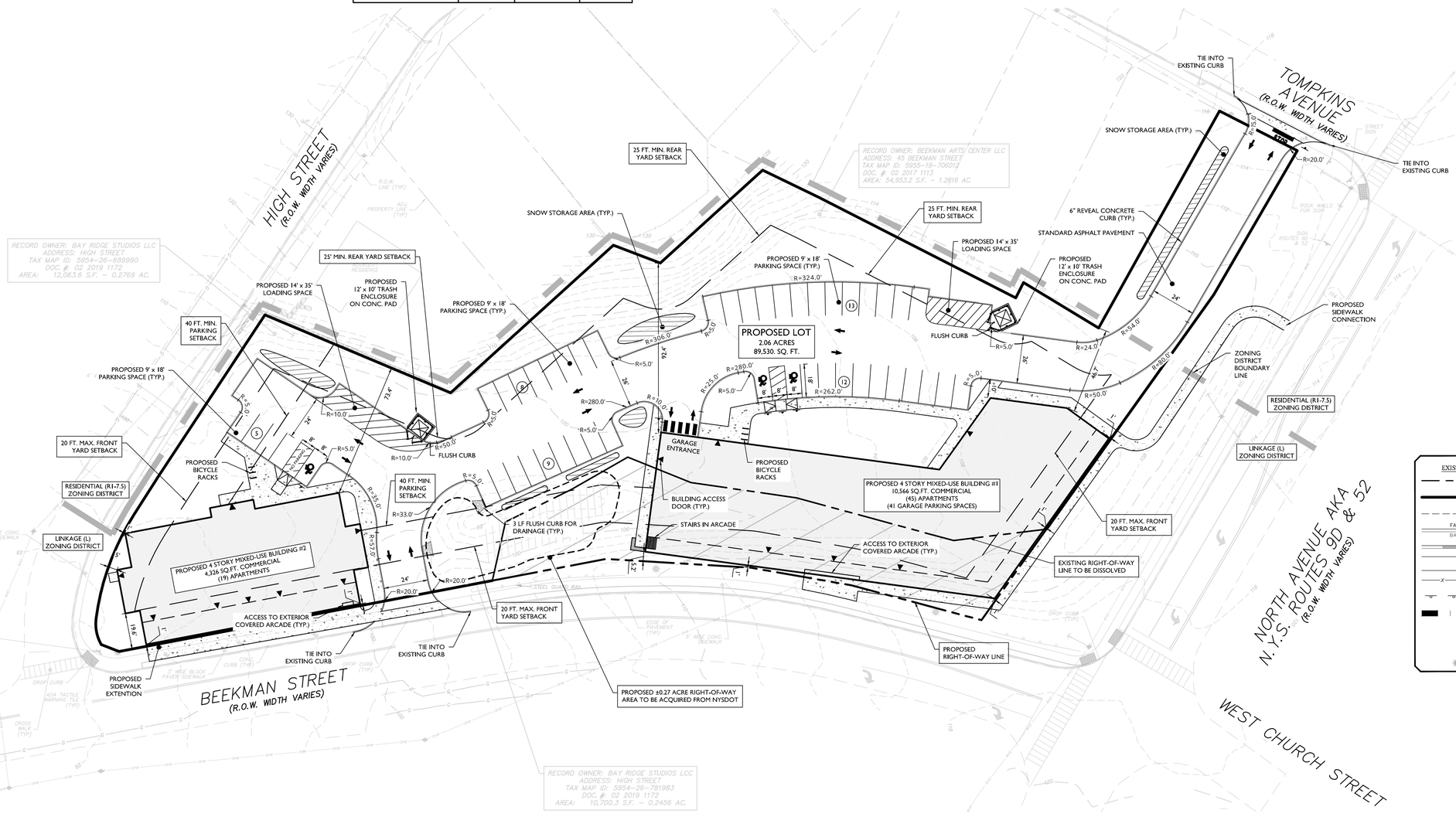
TAX LOTS:

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	

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-04-DIMENSION PLAN By: KYLE.SHALLOW

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LICENSE NUMBER: 001964-01
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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

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AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-LAYT

SHEET TITLE: DIMENSION PLAN

SHEET NUMBER: 04 of 19

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%).

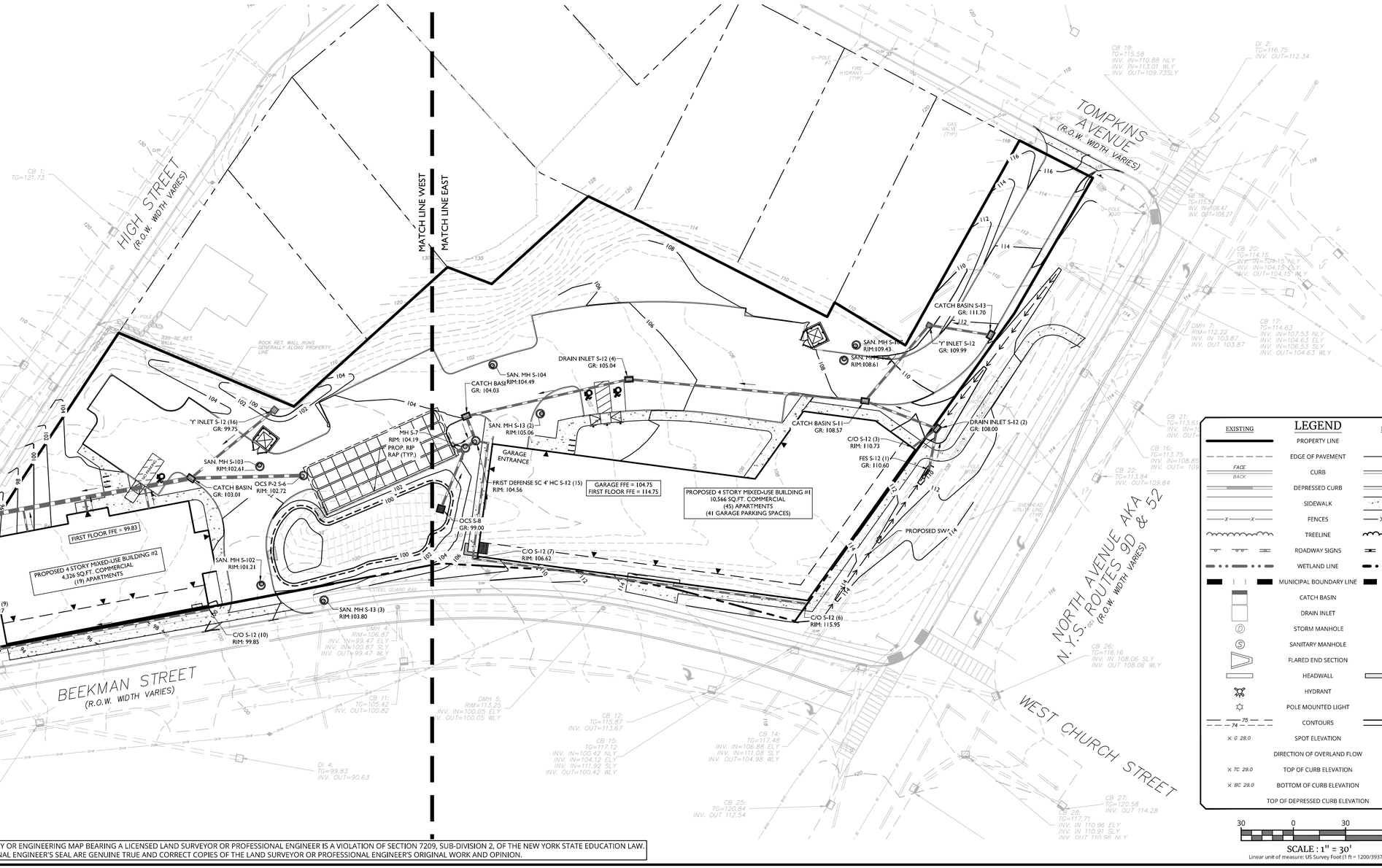
   C. LANDINGS -SHALL BE PROVIDED AT EACH END OF RAMPS, SHALL PROVIDE POSITIVE DRAINAGE, AND SHALL NOT EXCEED 1:48 (1/4" PER FOOT OR NOMINALLY 2.0%) IN ANY DIRECTION.

   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	CURB	FACE
BACK	DEPRESSED CURB	BACK
	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

30 0 30 60

SCALE : 1" = 30'

Linear unit of measure: US Survey Foot (1 ft = 1200/3937 m)

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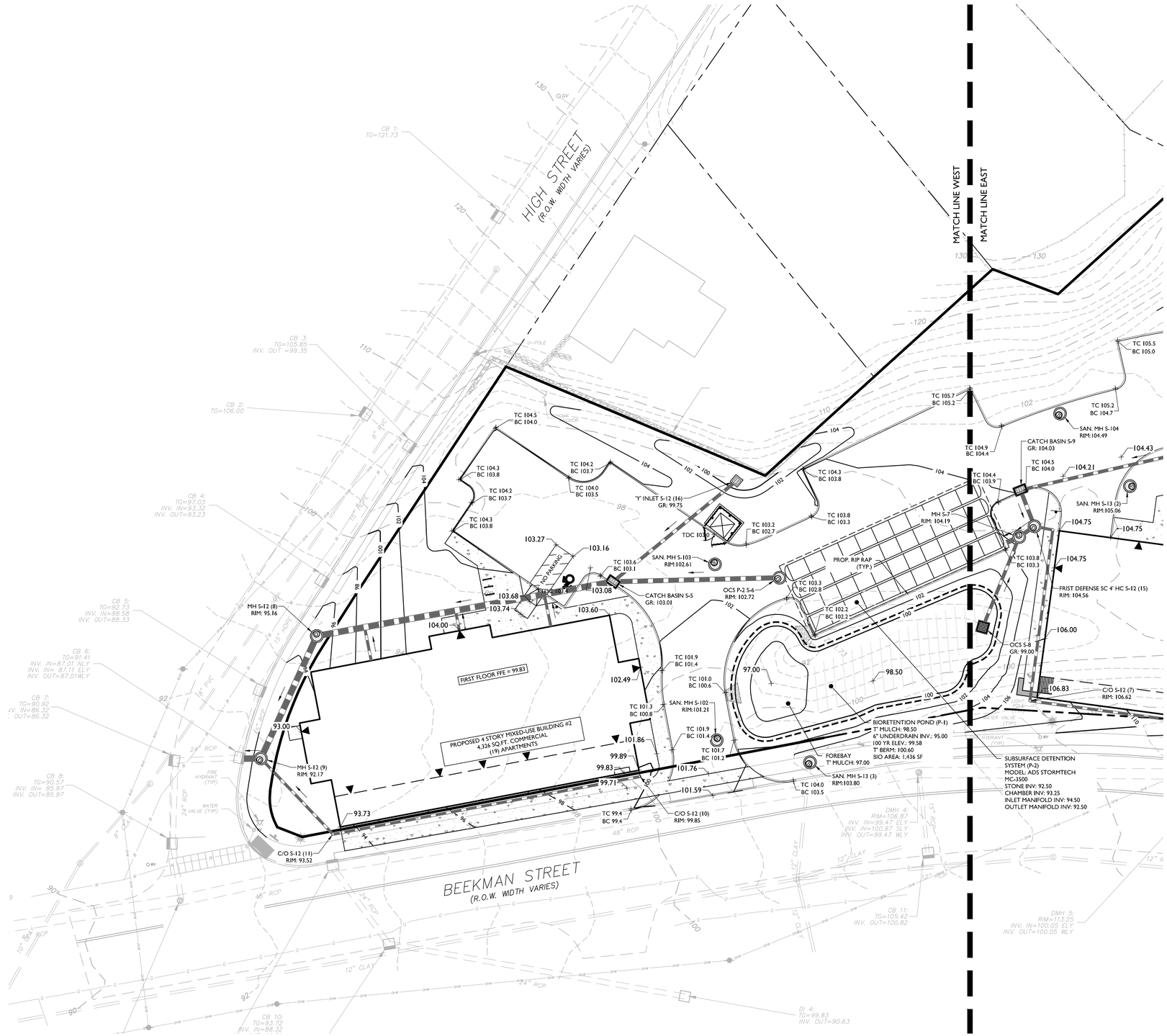
PROJECT NUMBER: 23010468A

DRAWING NAME: C-GRAD

SHEET TITLE: GRADING PLAN (OVERALL)

SHEET NUMBER: 05 of 19

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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)

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

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2023\23010468A\Engineering\Site Plans\C-GRAD.dwg|C-06 GRADING A By: KNT, 5:44:11 PM

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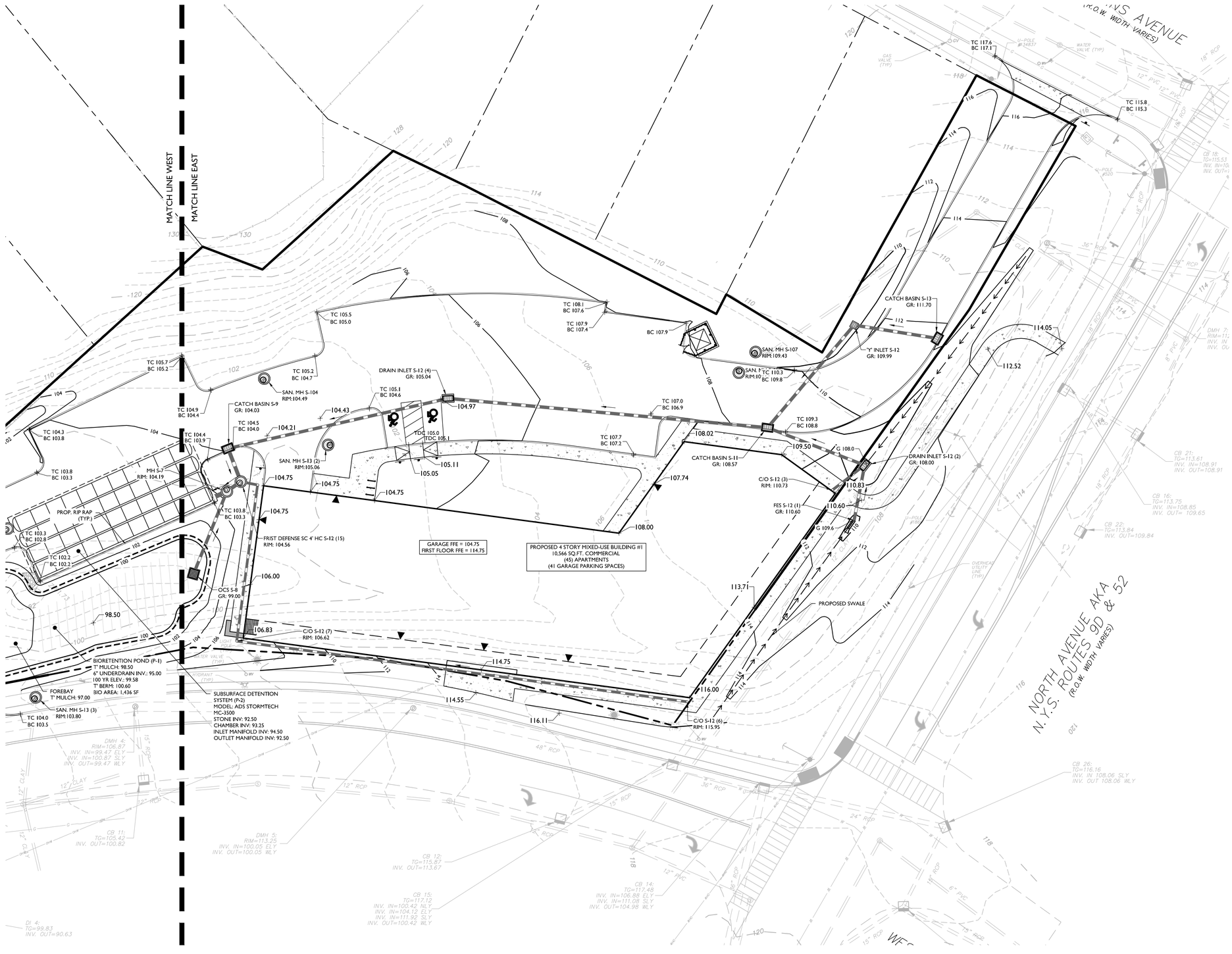
PROJECT NUMBER:	DRAWING NAME:
23010468A	C-GRAD

SHEET TITLE:

GRADING PLAN (WEST)

SHEET NUMBER:

06 of 19



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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	
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75 / 74	CONTOURS	75 / 74
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PROJECT NUMBER: 23010468A
DRAWING NAME: G-GRAD

SHEET TITLE: GRADING PLAN (EAST)

SHEET NUMBER: 07 of 19

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

2023\23010468A\Engineering\Site Plans\C-GRAD.dwg|C-07-GRADING B By: KYLE SMALLOW

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.

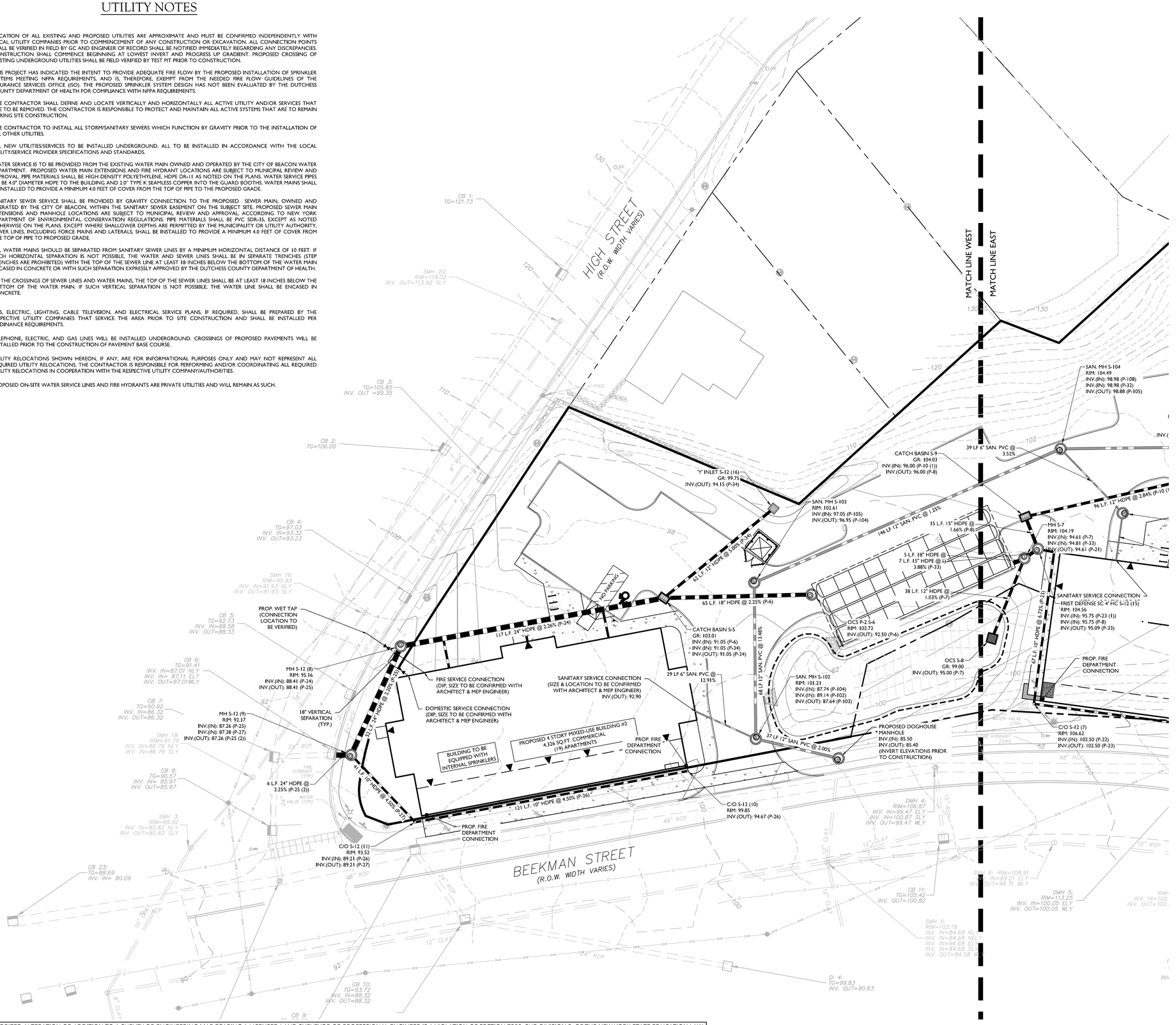
9. AT THE CROSSINGS OF SEWER LINES AND WATER MAINS, THE TOP OF THE SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN. IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE WATER LINE SHALL BE ENCASED IN CONCRETE.

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	
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	DEPRESSED CURB	
	SIDEWALK	
X X	FENCES	X X
	TREELINE	
	ROADWAY SIGNS	
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2023\23010468A\Engineering\Civil\e Plans\C-UTIL.dwg|C-08 UTILITY By: KATE SHALLOW

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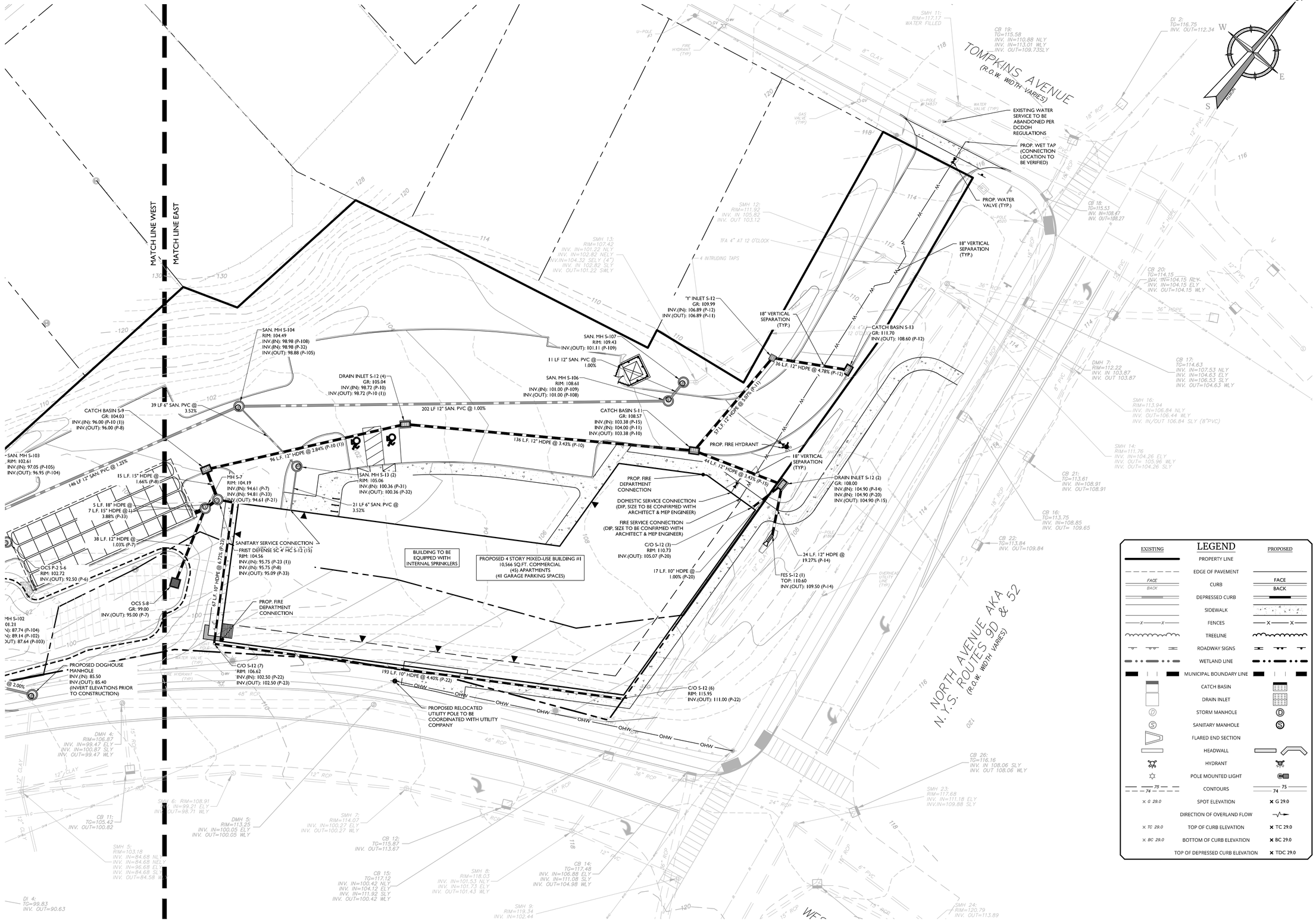
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PROJECT NUMBER: 23010468A
DRAWING NAME: C-UTIL

SHEET TITLE: UTILITIES PLAN (WEST)

SHEET NUMBER: 08 of 19

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)

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\2301\dwg\Engineering\Site Plans\C-UTIL.dwg|C-09 UTILITY By: KYLE SHALLOW

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REV	DATE	DRAWN BY	DESCRIPTION
1	06/25/24	KAS	REVISED PER PLANNING BOARD COMMENTS

Digitally signed by Justin E. Dates
Date: 2024.06.25 11:12:38-04'00'

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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
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New Windsor, NY 12553
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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-UTIL

SHEET TITLE: UTILITIES PLAN (EAST)

SHEET NUMBER: 09 of 19

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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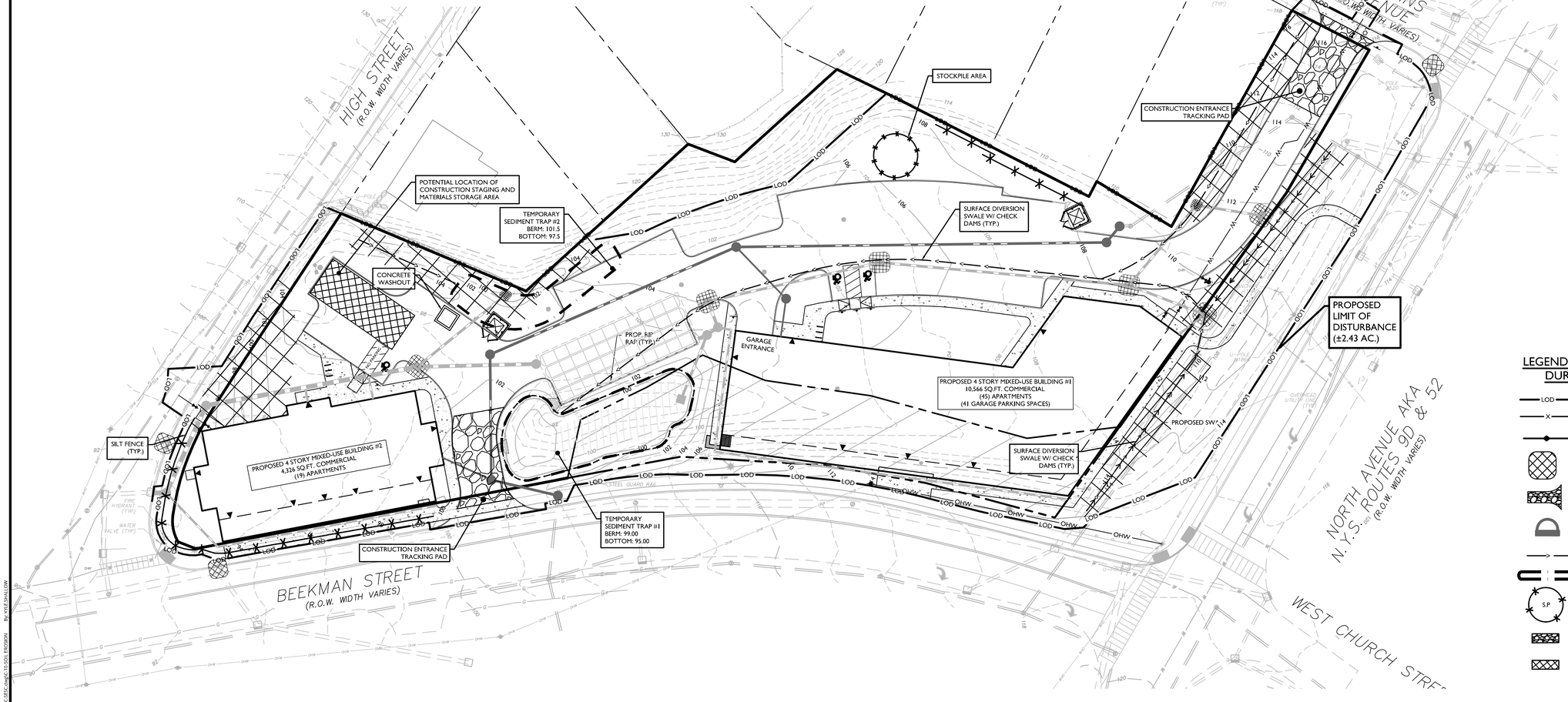
**FINAL STABILIZATION - MEANS THAT ALL SOIL DISTURBANCE ACTIVITIES HAVE CEASED AND A UNIFORM, PERENNIAL VEGETATIVE COVER WITH A DENSITY OF EIGHTY (80) PERCENT OVER THE ENTIRE PERVIOUS SURFACE HAS BEEN ESTABLISHED; OR OTHER EQUIVALENT STABILIZATION MEASURES, SUCH AS PERMANENT LANDSCAPE MULCHES, ROCK RIP-RAP 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-10-SOIL EROSION By: KYLE SHALLOW

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REV	DATE	DRAWN BY	DESCRIPTION
1	09/25/24	KAS	REVISED PER PLANNING BOARD COMMENTS

Digitally signed by Justin E. Dates
Date: 2024.06.25 11:12:38-04'00'

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NEW YORK REGISTERED LANDSCAPE ARCHITECT
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SITE PLAN
FOR
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5955-19-706012
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555 Hudson Valley Avenue
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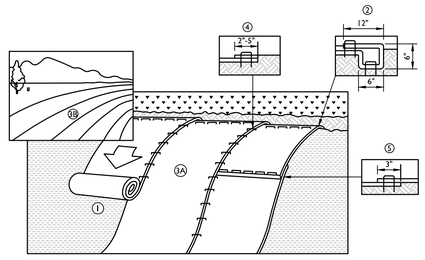
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-SESC

SHEET TITLE: SOIL EROSION & SEDIMENT CONTROL PLAN

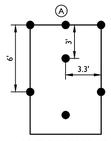
SHEET NUMBER: 10 of 19

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

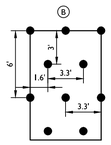


SLOPE INSTALLATION

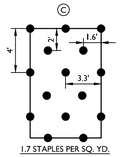
STAPLES PATTERN GUIDE
6.67' WIDE ROLLS



0.7 STAPLES PER SQ. YD.



1.15 STAPLES PER SQ. YD.



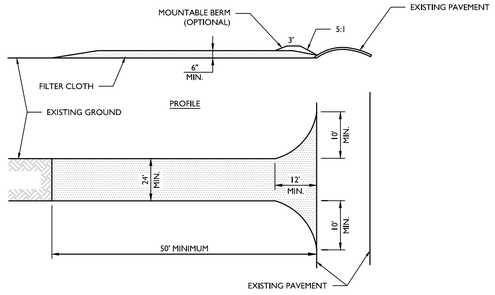
1.7 STAPLES PER SQ. YD.

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 RECP'S 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 RECPS.

EROSION MATTING (CURLEX ENFORCER I) DETAIL

NOT TO SCALE | MCNY-SOIL-EROS-2200 | 07/01/19



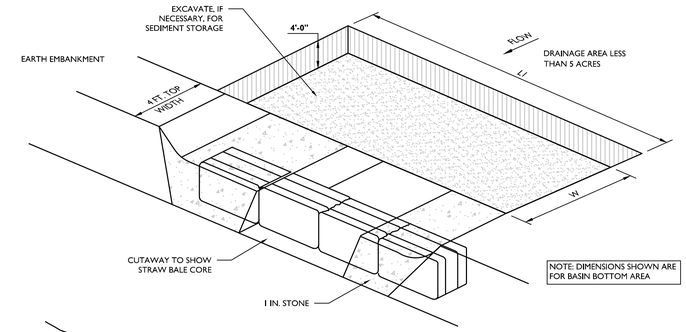
PLAN VIEW

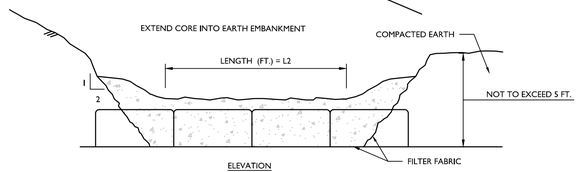
NOTES:

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

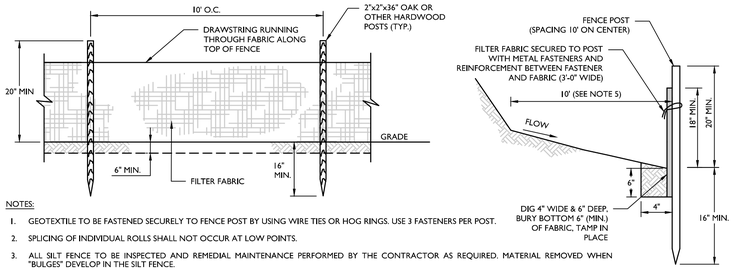
NOTE:

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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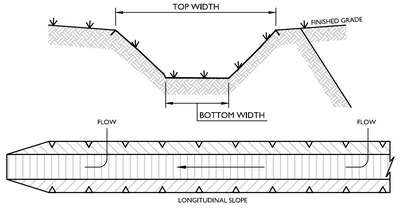


NOTES:

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

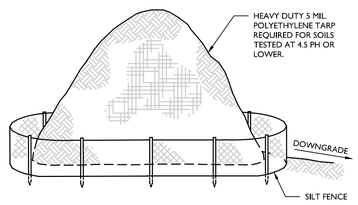
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PLAN

VEGETATED SWALE					
SWALE	BOTTOM WIDTH	SIDE SLOPE	LONGITUDINAL SLOPE	DEPTH	LENGTH
1R	2.0 FT	50%	2.00%		506'

VEGETATIVE SWALE DETAIL

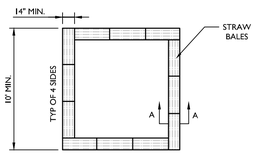


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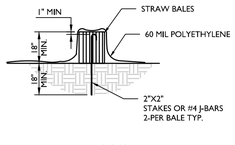
1. ALL STOCKPILES SHALL NOT TO BE LOCATED WITHIN 50 FEET OF A FLOODPLAIN, SLOPE, ROADWAY OR DRAINAGE FACILITY.

TOPSOIL STOCKPILE DETAIL

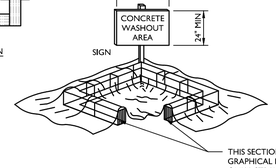
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BALE CONFIGURATION



SECTION A-A



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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Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

SITE PLAN

FOR

BEEKMAN ARTS CENTER LLC & BAY RIDGE STUDIOS LLC

TAX LOTS:
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5954-26-689990
5954-26-781983

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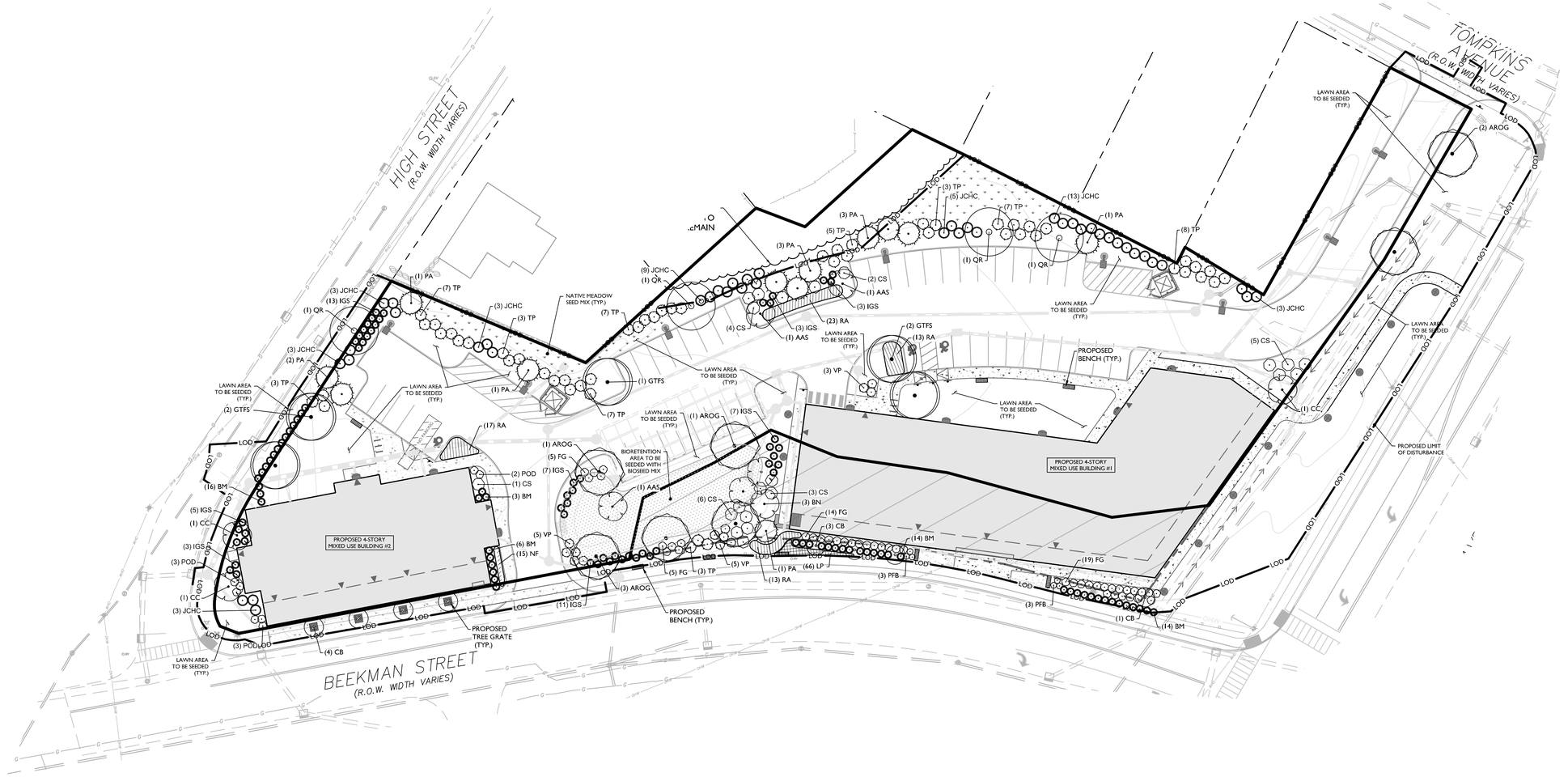
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SHEET TITLE:
SOIL EROSION & SEDIMENT CONTROL DETAILS

SHEET NUMBER:
11 of 19

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION



SITE PLANTING SCHEDULE

	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	REMARKS
DECIDUOUS TREES						
AROG	7	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	4	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	12	Picea abies	Norway Spruce	B & B	6-8` Ht.	DENSE / TYP. SPECIES HABIT
ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	ROOT	SIZE	REMARKS
AAS	3	Amelanchier alnifolia	Serviceberry	B & B	6-7` Ht.	MULTISTEM / TYP. SPECIES HABIT
BN	3	Betula nigra	River Birch	B & B	6-7` Ht.	MULTISTEM / TYP. SPECIES HABIT
CB	8	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	21	Cornus sericea	Red Twig Dogwood	CONT	24" - 30"	TYPICAL SPECIES HABIT
BM	53	Buxus microphylla var. japonica 'Winter Gem'	Winter Gem Boxwood	CONT	18" - 24"	TYPICAL SPECIES HABIT
FG	43	Fothergilla gardenii	Dwarf Fothergilla	CONT	18" - 24"	TYPICAL SPECIES HABIT
IGS	52	Ilex glabra `Shamrock`	Inkberry	CONT	18" - 24"	TYPICAL SPECIES HABIT
JCHC	32	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	8	Physocarpus opulifolius 'Diabolo'	Diabolo Ninebark	CONT	24" - 30"	TYPICAL SPECIES HABIT
RA	66	Rhus aromatica 'Gro-Low'	Gro-Low Fragrant Sumac	CONT	18" - 24" SPREAD	TYPICAL SPECIES HABIT, 3.5' O.C.
TP	53	Thuja x plicata 'Green Giant'	Green Giant Arborvitae	CONT	5-6` Ht.	TYPICAL SPECIES HABIT
VP	13	Viburnum prunifolium	Blackhaw Viburnum	CONT	24" - 30"	TYPICAL SPECIES HABIT
GROUND COVERS	QTY	BOTANICAL NAME	COMMON NAME	CONT	SPACING	
LP	66	Liriope platyphylla	Liriope Grass	SPS	18" o.c.	
NF	15	Nepeta x faassenii	Catmint	1 gal.	24" o.c.	

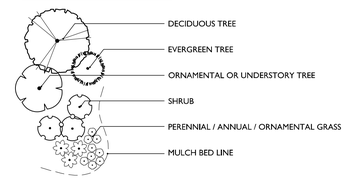
PLAN NOTE

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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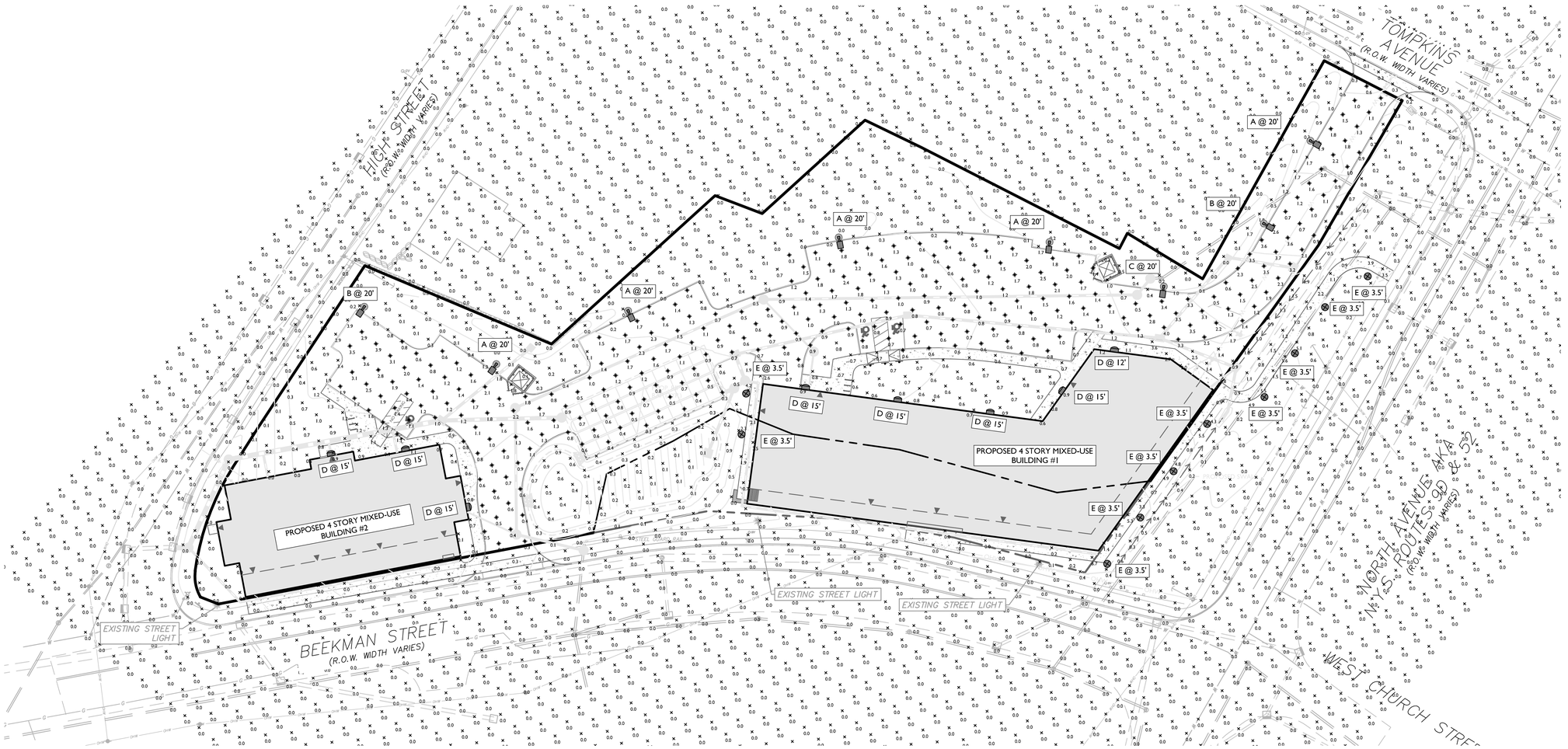
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DRAWING NAME: C-LAND

SHEET TITLE: LANDSCAPE PLAN

SHEET NUMBER: 12 of 19

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LUMINAIRE SCHEDULE

KEY	QTY.	DESCRIPTION	ARRANGEMENT	MTG. HT.	LUMENS/LAMP	COLOR TEMPERATURE	CRI	LLF	CATALOG #
A	5	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	20'	7,283	3000K	80	0.9	DSX0 LED-P4-30K-80CRI-BLC4-MVOLT-SPA-DBLXD-PER5
B	2	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	20'	7,116	3000K	80	0.9	DSX0 LED-P4-30K-80CRI-LCCO-MVOLT-SPA-DBLXD-PER5
C	1	LITHONIA LIGHTING D-SERIES SIZE 0 LED AREA LUMINAIRE	SINGLE	20'	7,116	3000K	80	0.9	DSX0 LED-P4-30K-80CRI-RCCO-MVOLT-SPA-DBLXD-PER5
D	8	LITHONIA LIGHTING D-SERIES SIZE 1 LED WALL LUMINAIRE	SINGLE (WALL PACK)	12',15'	1,357	3000K	80	0.9	DSXW1 LED-10C-350-30K-T4M-MVOLT-PE-DBLXD
E	10	HYDREL IMPACT RESISTANT ROUND BOLLARD FLAT TOP	SINGLE (BOLLARD)	3.5'	1,549	3000K	80	0.9	3110C-H36-8COB-30K-MVOLT-FT-LP-BL

CALCULATION SUMMARY

DESCRIPTION	CALC. TYPE	UNITS	AVG.	MAX.	MIN.	AVG. / MIN.
PARKING, DRIVE & SIDEWALK	ILLUMINANCE	FC	1.1	6.7	0.3	3.6:1

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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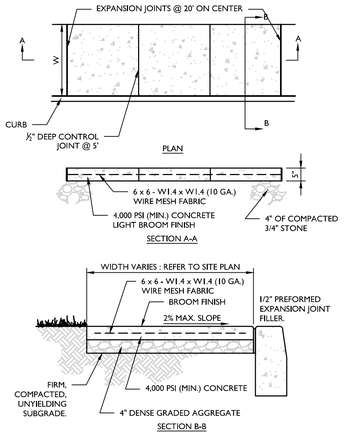
SCALE:	DATE:	DRAWN BY:	CHECKED BY:
AS SHOWN	01/30/2024	XXXXXX	XXXXXX

PROJECT NUMBER: 23010468A
DRAWING NAME: C-LGHT

SHEET TITLE: LIGHTING PLAN

SHEET NUMBER: 13 of 19

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

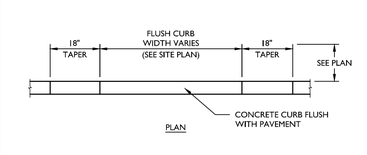


NOTES:

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.

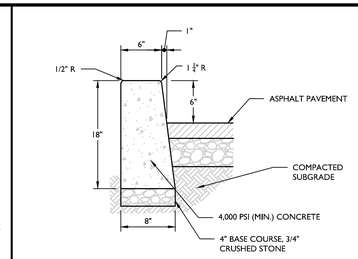
REINFORCED CONCRETE SIDEWALK (NEXT TO CURB) DETAIL

NOT TO SCALE | MCNY-SITE-PVMT-1800 | 07/01/19



CONCRETE FLUSH CURB DETAIL

NOT TO SCALE | MCNY-SITE-CURB-1300 | 07/01/19

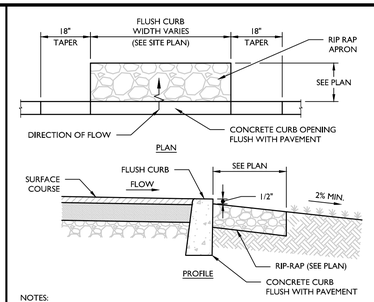


NOTES:

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

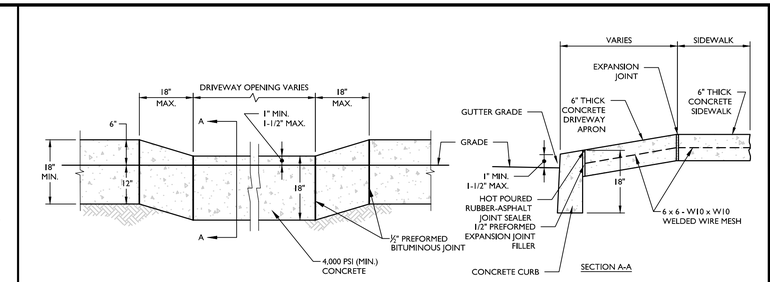


NOTES:

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

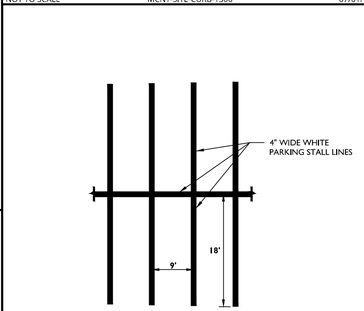


NOTES:

1. DEPRESSED VERTICAL CURB AT DRIVEWAY AND RAMP AREAS SHALL BE FULL DEPTH OF 18".

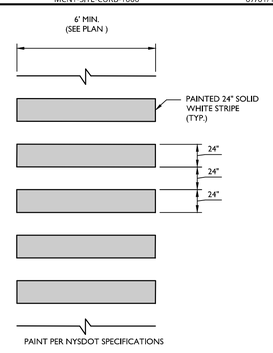
DEPRESSED CONCRETE CURB AT DRIVEWAY DETAIL

NOT TO SCALE | MCNY-SITE-CURB-1700 | 07/01/19



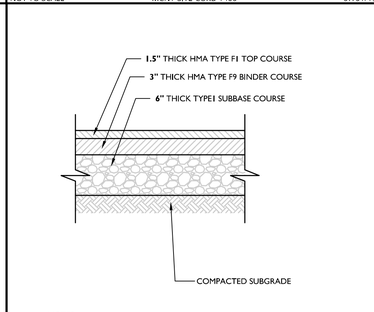
TYPICAL PARKING STALL STRIPING DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-1000 | 07/01/19



PEDESTRIAN CROSSWALK DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-1401 | 07/01/19

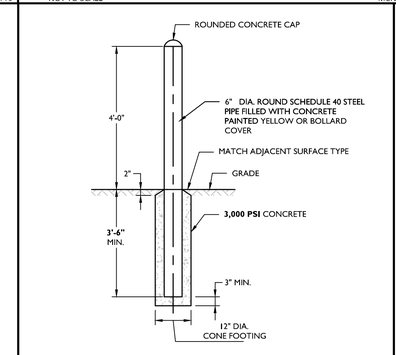


NOTES:

1. PAVEMENT TYPES TO BE IN ACCORDANCE WITH CURRENT NYSDOT STANDARDS AND SPECIFICATIONS.

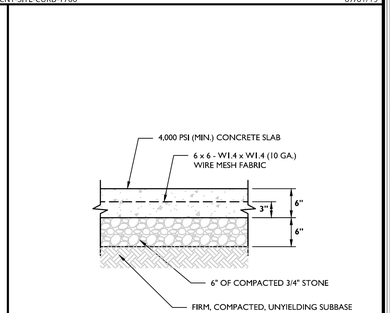
STANDARD ASPHALT PAVEMENT DETAIL

NOT TO SCALE | MCNY-SITE-PVMT-1000 | 07/01/19



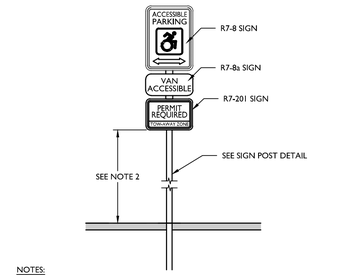
BOLLARD DETAIL

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

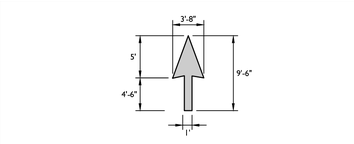


NOTES:

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.

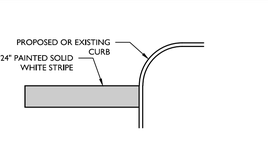
ACCESSIBLE PARKING SIGN DETAIL

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

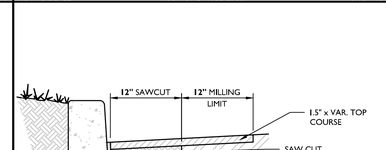


NOTES:

1. 4.0' ON CENTER
2. 4" YELLOW AT 45 DEGREES
3. WIDTH TO BE CONFIRMED WITH LOCAL JURISDICTIONAL ENTITY.

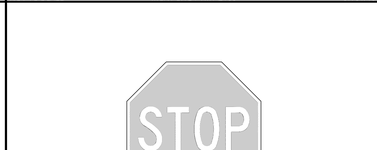
FIRE ZONE / LOADING AREA STRIPING DETAIL

NOT TO SCALE | MCNY-SITE-MRKG-2100 | 07/01/19



SAWCUT AND PAVEMENT RESTORATION DETAIL

NOT TO SCALE | MCNY-SITE-PVMT-2800 | 07/01/19

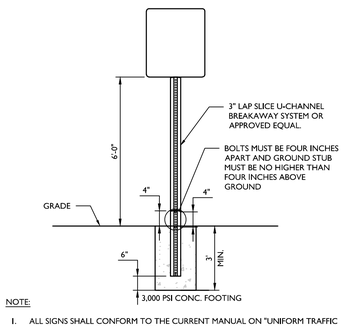


30" x 30"

COLORS:
LEGEND = WHITE (RETROREFLECTIVE)
BACKGROUND = RED (RETROREFLECTIVE)

R1-1 SIGN DETAIL

NOT TO SCALE | MCCM-SIGN-REGU-R1-1 | 12/01/20

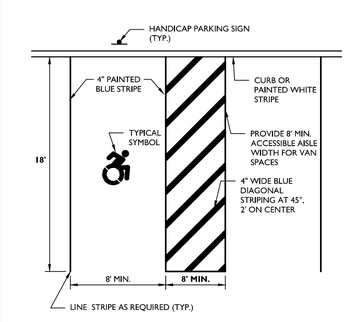


NOTE:

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.

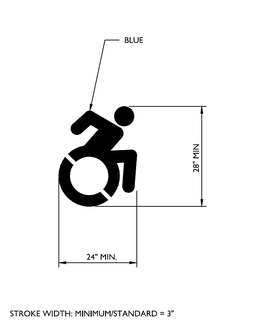
BREAKAWAY SIGN POST DETAIL

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



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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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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REV	DATE	DRAWN BY	DESCRIPTION
1	05/25/24	KAS	REVISED PER PLANNING BOARD COMMENTS



Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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

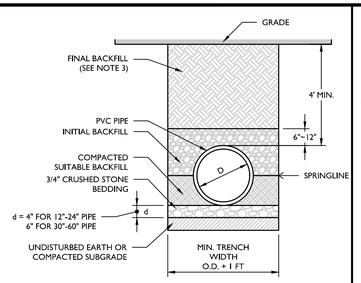
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AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-DTLS

SHEET TITLE: CONSTRUCTION DETAILS

SHEET NUMBER: 14 of 19

2023\23010468A\Engineering\Cone Plans\C-DTLS.dwg|C-14-DETAILS By: KYLE.SHALLOW

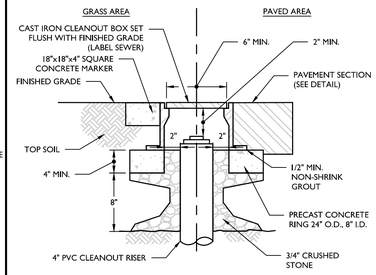


NOTES:

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

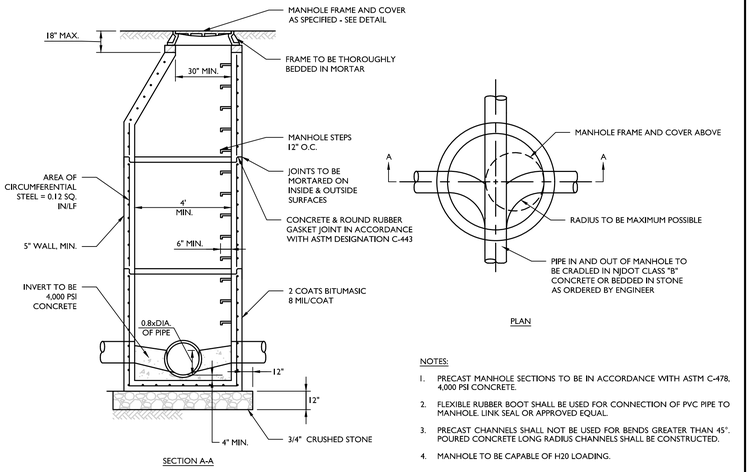


NOTES

1. 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

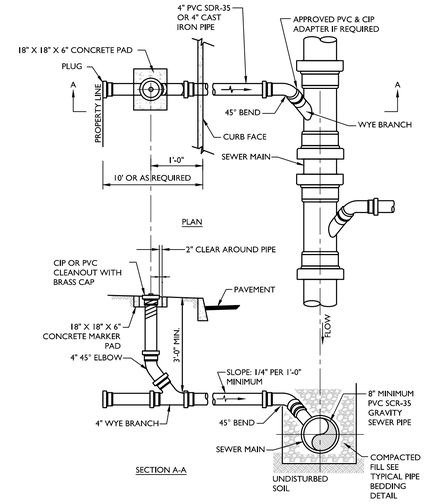


NOTES:

1. 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.

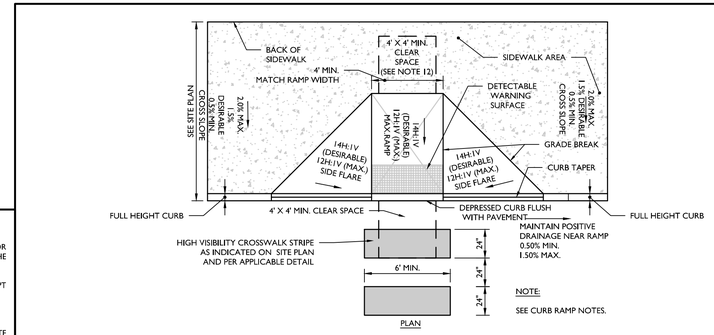
SANITARY PRECAST MANHOLE DETAIL

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:

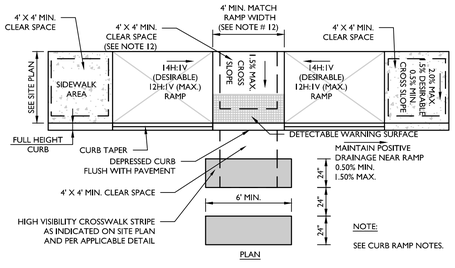
1. CONTRACTOR SHALL PREPARE SHOP DRAWINGS OF EACH CURB RAMP FOR SUBMISSION AND APPROVAL OF THE UNDERSIGNED PROFESSIONAL AND THE MUNICIPAL, COUNTY, STATE OR OTHER AGENCY'S ENGINEER HAVING JURISDICTION.
2. LANDING AREA, APPROACH SIDEWALK TRANSITIONS AND CURB RAMP SHALL BE KEPT CLEAR OF OBSTRUCTIONS.
3. CURB AT RAMP OPENING (FLUSH CURB) TO BE FLUSH WITH ROADWAY PAVEMENT.
4. CROSSWALKS AND PAVEMENT MARKINGS TO BE INSTALLED AS DENOTED ON SITE PLAN.
5. MAXIMUM RAMP SLOPE MAY BE 12H:1V UPON APPROVAL OF ENGINEER, RAMP SLOPES SHOWN ARE THE PREFERRED SLOPE. SIDE FLARE SLOPES MAY BE 10H:1V UPON APPROVAL OF THE ENGINEER.
6. MINIMUM RAMP CROSS-SLOPE SHALL BE 0.50%. THE MAXIMUM RAMP CROSS-SLOPE MAY BE 2.00% UPON APPROVAL OF THE ENGINEER. CROSS-SLOPES SHOWN IN THE DETAILS ARE THE PREFERRED SLOPES TO MAINTAIN A LEVEL OF CONSTRUCTION TOLERANCE.
7. ACCESSIBLE RAMPS SHALL BE INSTALLED PURSUANT WITH THE CURRENT UNITED STATES ACCESS BOARD ACCESSIBILITY GUIDELINES FOR PEDESTRIAN FACILITIES AND THE ADA STANDARDS FOR ACCESSIBLE DESIGN AS PUBLISHED BY THE UNITED STATES DEPARTMENT OF JUSTICE AND OTHER APPLICABLE LOCAL AND STATE STANDARDS IN EFFECT AT THE DATE OF CONSTRUCTION.
8. DEVIATIONS FROM THE CURB RAMP DETAILS REQUIRE WRITTEN APPROVAL OF THE UNDERSIGNED PROFESSIONAL AND THE MUNICIPAL, COUNTY, STATE OR OTHER AGENCY'S ENGINEER HAVING JURISDICTION.
9. THE RAMP SURFACE SHALL HAVE A NON-SLIP, HAND BROOMED FINISH.
10. CONCRETE EXPANSION JOINTS SHALL HAVE A FIRM SURFACE WITH 1/4" BEVELED CONCRETE EDGES. THE JOINT SURFACE SHALL NOT BE MORE THAN 1/4" BELOW THE ADJOINING CONCRETE SURFACE.
11. CURB RAMP MUST BE WHOLLY CONTAINED WITHIN THE CROSSWALK CROSSING.
12. THE CLEAR SPACE SHALL BE INCREASED TO 5 FEET WHERE THE TURNING SPACE IS CONSTRAINED AT THE BACK OF THE SIDEWALK.
13. THE MAXIMUM SEPARATION BETWEEN THE BACK OF CURB AND DETECTABLE WARNING SURFACE SHALL NOT EXCEED 5 FEET. THE MAXIMUM SEPARATION AREA MAY BE WITHIN THE 4' X 4' CLEAR SPACE.
14. SEE SEPARATE DETAILS FOR "DETECTABLE WARNING SURFACE" AND "CURB RAMP SECTIONS".
15. WHERE SIDE FLARES ARE NOT REQUIRED, PROVIDE AN 18" CURB TAPER TO THE FLUSH CURB.
16. ALL CURB RAMP FLUSH CURB SHALL BE MADE WITH CONCRETE CURB CRADLE. REGARDLESS OF THE CURB MATERIAL USED THROUGHOUT THE SITE.

CURB RAMP NOTES

MCNY-SITE-HADA-2500 | 07/01/19

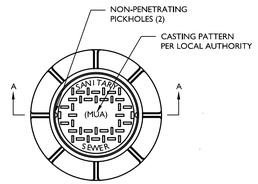
CURB RAMP TYPE 1 DETAIL

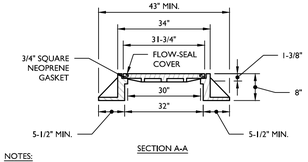
NOT TO SCALE | MCNY-SITE-HADA-1000 | 07/01/19



CURB RAMP TYPE 7 DETAIL

NOT TO SCALE | MCNY-SITE-HADA-1600 | 07/01/19



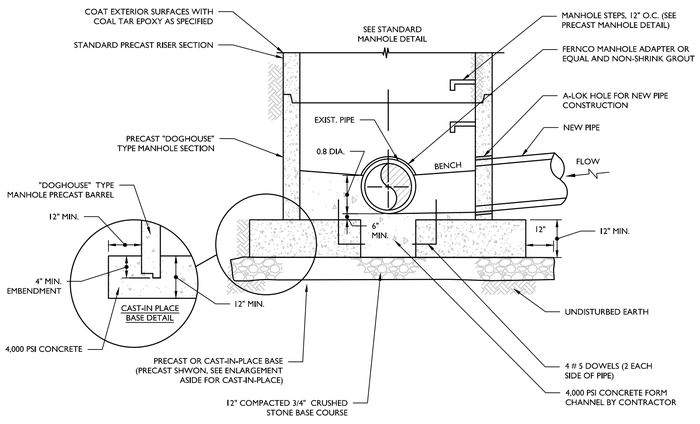


NOTES:

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.

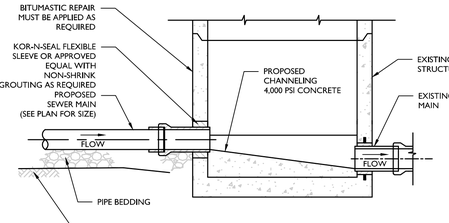
SANITARY MANHOLE FRAME AND COVER DETAIL

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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20232v2501668AEngineering\Site Plans\C-DTLS.dwg/C-15-DETAILS By: KYLE SHALLOW

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1	06/25/24	KAS	REVISED PER PLANNING BOARD COMMENTS

Digitally signed by Justin E. Dates
Date: 2024.06.25 11:32:38-04'00'

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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
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New Windsor, NY 12553
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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 19

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

WATER NOTES:

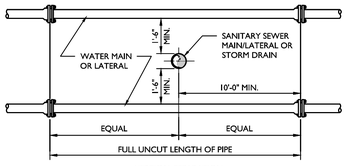
1. ALL METHODS, MATERIALS, FITTINGS, DEVICES, DIMENSIONAL REQUIREMENTS AND PROCEDURES NECESSARY TO COMPLETE THE WORK SHOWN HEREON SHALL MEET THE APPROPRIATE CURRENT AWWA SPECIFICATIONS IN EFFECT AS WELL AS ALL REQUIREMENTS DEEMED APPLICABLE BY THE MUNICIPALITY OR ANY OTHER GOVERNMENTAL BODY HAVING JURISDICTION OVER SAID WORK.
2. ALL WATER MAIN PIPE SHALL BE DUCTILE IRON (DIP).
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", 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 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 REMOVAL 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

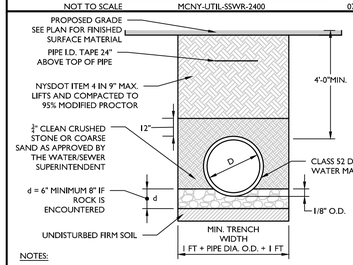


HORIZONTAL SEPARATION

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

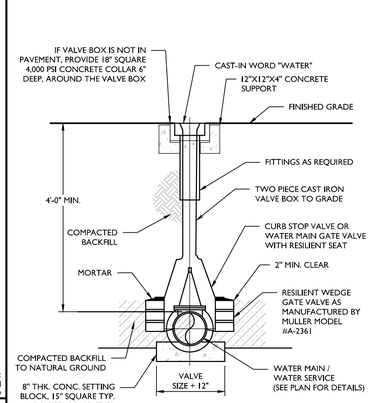
PIPE SIZE IN INCHES	NUMBER AND SIZE OF RODS REQUIRED AND PIPE LENGTH IN FEET TO BE RESTRAINED								
	90° TEE OR DEAD END PLUG			45° BEND			22½° BEND		
	No.	SIZE	L*	No.	SIZE	L*	No.	SIZE	L*
4	2	¾"	28'	2	¾"	6'	2	¾"	3'
6	2	¾"	40'	2	¾"	8'	2	¾"	4'
8	4 or 2	¾" or ⅞"	52'	2	¾"	10'	2	¾"	5'
10	4	¾"	63'	2	¾"	12'	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

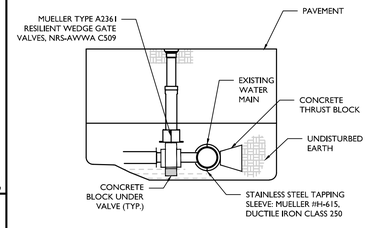
NOT TO SCALE HDPE .PVP JOINT RESTRAINT 03/23/23



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

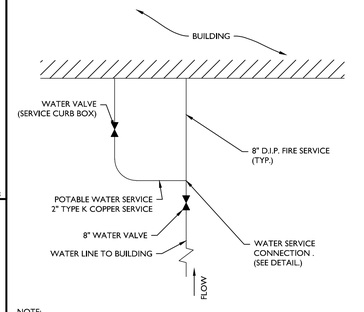
NOT TO SCALE MCNY-UTIL-WATR-1600 MOD: 09/09/22 07/01/19



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

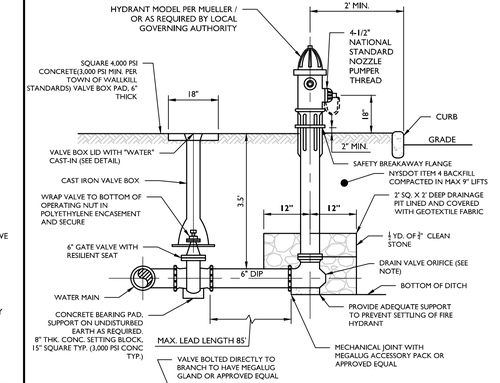
NOT TO SCALE WET TAP 07/01/19



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

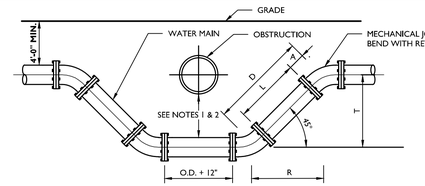
NOT TO SCALE



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 5 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.S92 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

NOT TO SCALE MCNY-UTIL-WATR-1000 MOD: 01/09/23 07/01/19



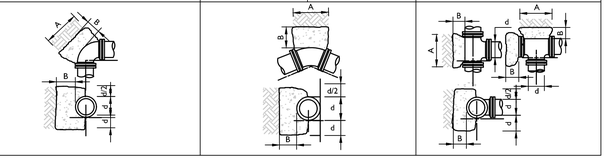
MECHANICAL JOINTS			
ANGLE	D =	R =	L =
45°	T x 1.414	T x 1.000	D-2A
22.5°	T x 2.613	T x 2.414	D-2A
11.25°	T x 5.126	T x 5.027	D-2A

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

REV	DATE	DRAWN BY	DESCRIPTION
1	06/25/24	KAS	REVISED PER PLANNING BOARD COMMENTS

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Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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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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 19

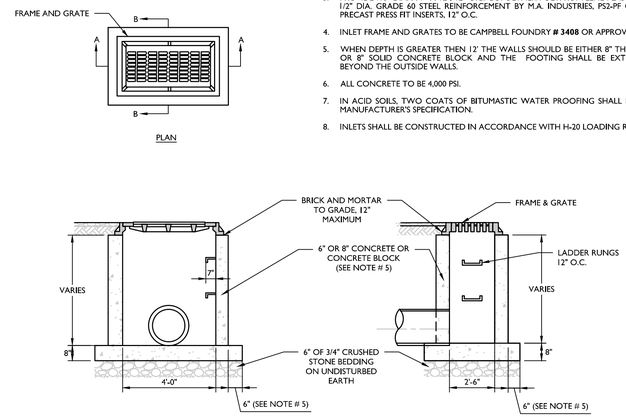
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2023\23010468A\Engineering\Site Plans\C-DTLS.dwg|C-16 DETAILS By: KYLE SHALLOW

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.

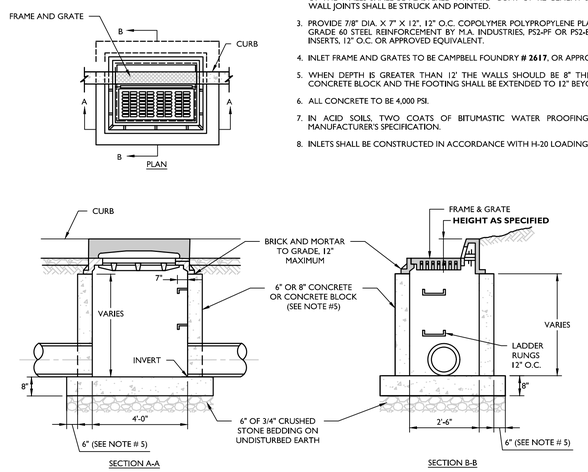


SINGLE DRAIN INLET DETAIL

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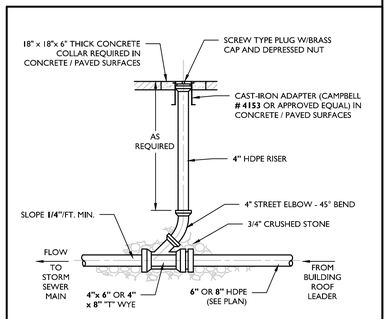
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3. PROVIDE 7/8" DIA. X 7" X 12", 12" O.C. COPOLYMER POLYPROPYLENE PLASTIC STEPS WITH 1/2" DIA. GRADE 60 STEEL REINFORCEMENT BY M.A. INDUSTRIES, PS2-PF OR PS2-B WITH PRECAST PRESS FIT INSERTS, 12" O.C. OR APPROVED EQUIVALENT.
4. INLET FRAME AND GRATES 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.



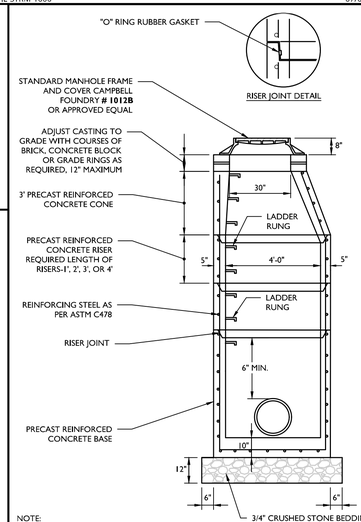
SINGLE CATCH BASIN DETAIL

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ROOF LEADER CLEANOUT DETAIL

NOT TO SCALE | MCNY-UTIL-STRM-1900 | 07/01/19

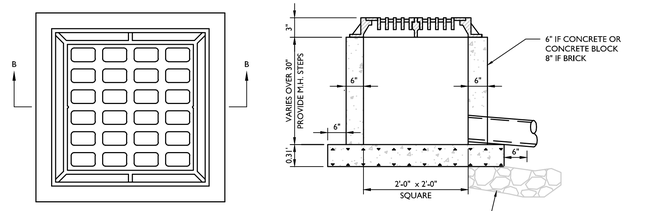


NOTE:

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

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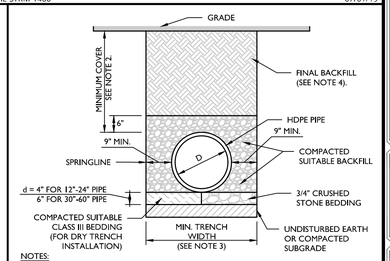


GENERAL CONSTRUCTION NOTES:

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

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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

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AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-DTLS

SHEET TITLE: CONSTRUCTION DETAILS

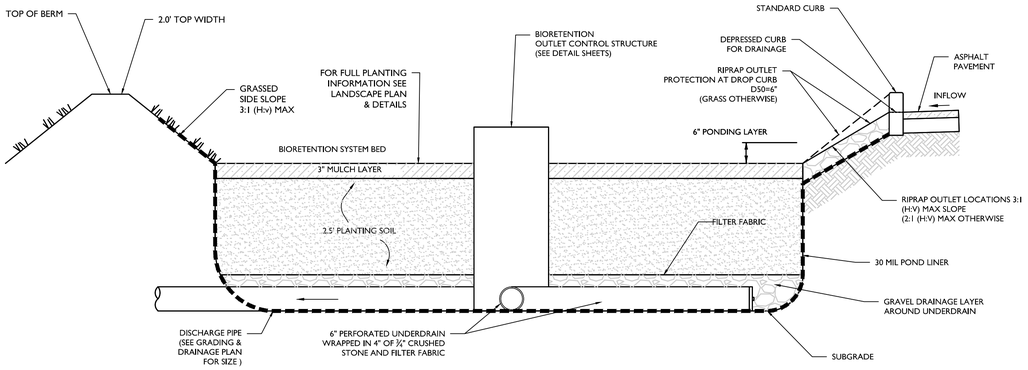
SHEET NUMBER: 17 of 19

2023\23010468A\Engineering\Site Plans\C-DTLS.dwg\C-17 DETAILS By:KYLE.SHALLOW

BIORETENTION ELEVATIONS					
SYSTEM	OUTLET NAME	OUTLET SIZE	BED ELEVATION	100 YR PEAK ELEVATION	TOP OF BERM ELEVATION
P-1	OCS S-8	4'X4'	98.50	99.58	100.60

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:

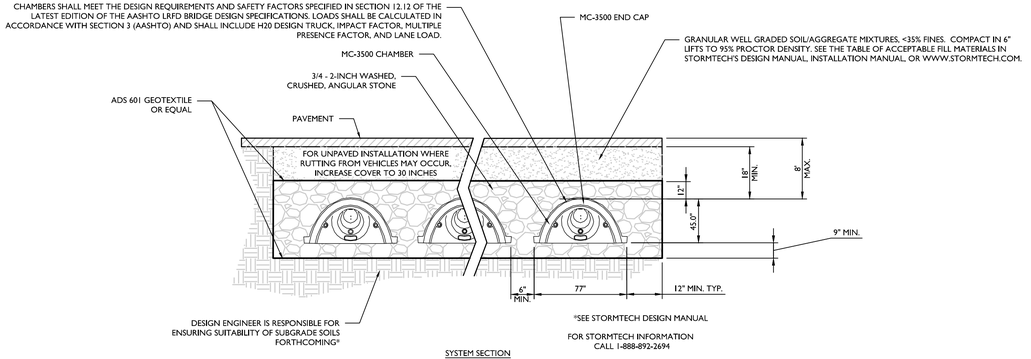


NOTES:

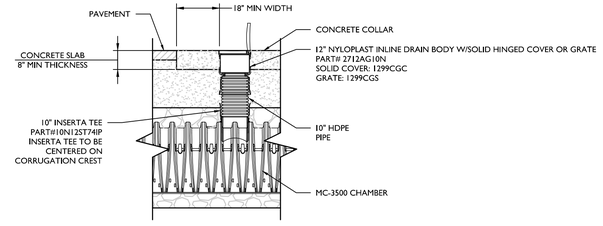
1. SEE PLAN FOR DROP CURB LOCATIONS AND BIORETENTION AREA CONFIGURATION.
2. PLANTING SOIL TO BE IN ACCORDANCE WITH NEW YORK STATE STANDARDS AND SPECIFICATIONS FOUND WITHIN THE PROJECT SWPPP.

BIORETENTION SYSTEM CROSS SECTION DETAIL

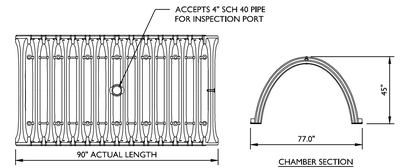
NOT TO SCALE | MCNY-UTIL-STMW-24001 | 07/01/19

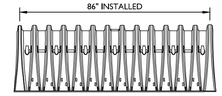


SYSTEM SECTION



STORMTECH STORM CHAMBER INSPECTION PORT DETAIL





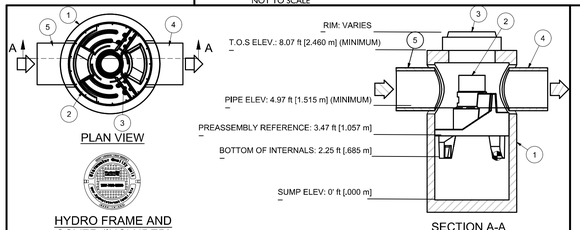
STORMTECH MC-3500 STORM CHAMBER DETAIL
N.T.S.

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



HYDRO FRAME AND COVER (INCLUDED)
GRADE RINGS BY OTHERS AS REQUIRED

NOTE: ADDITIONAL HEIGHT MAY BE REQUIRED DEPENDING ON PIPE SIZE

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

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AS SHOWN	01/30/2024	KAS	CPM

PROJECT NUMBER: 23010468A
DRAWING NAME: C-DTLS

SHEET TITLE: CONSTRUCTION DETAILS

SHEET NUMBER: 18 of 19

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION

2023\23010468A\Engineering\Dgn\e Plans\C-DTLS.dwg|C-18.DETAILS By: KYLE.SHALLOW

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.

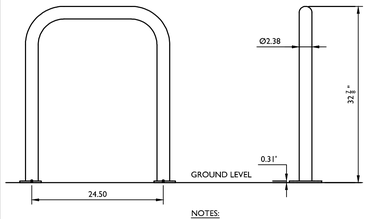
6. PLANTING MUST BE GUARANTEED FOR TWO FULL GROWING SEASONS FROM THE TIME OF FINAL ACCEPTANCE BY THE LANDSCAPE CONSULTANT. CONTRACTOR SHALL REMOVE ALL WRAPPING AT THE END OF GUARANTEE PERIOD OR SOONER PER PROJECT LANDSCAPE ARCHITECT.

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

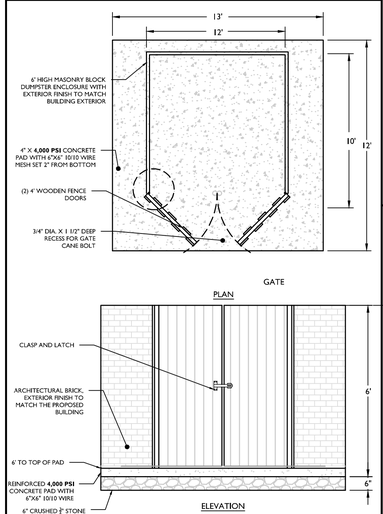


NOTES:

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, 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 (CHAMAECRESTA 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.

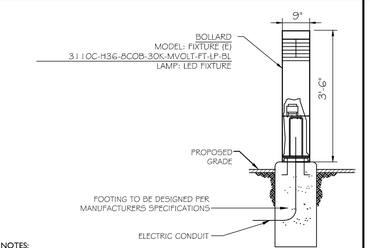
6. AS NEEDED, WORK LIME AND FERTILIZER INTO SOIL AS NEARLY AS PRACTICAL TO A DEPTH OF 4 INCHES WITH A DISC, SPRINGTOOTH HARROW, OR OTHER SUITABLE EQUIPMENT. THE FINAL HARROWING OR DISCING OPERATION SHOULD BE ON ON THE GENERAL CONTOUR. CONTINUE TILLAGE UNTIL A REASONABLY UNIFORM, FINE SEEDBED IS PREPARED. 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

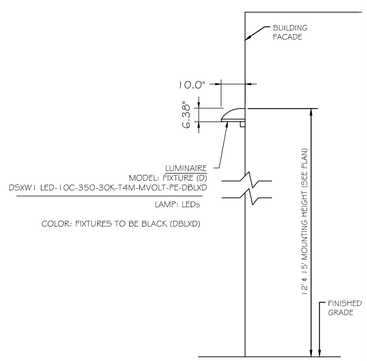


NOTES:

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

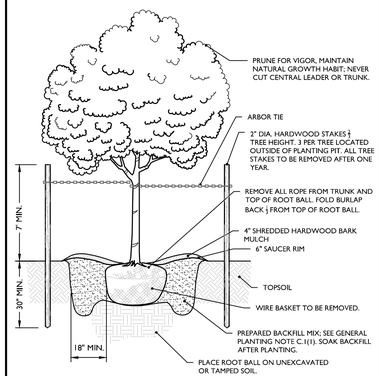


NOTES:

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

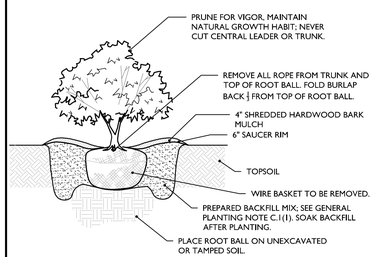


NOTES:

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

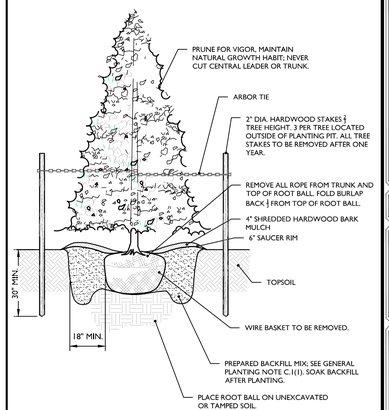


NOTES:

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

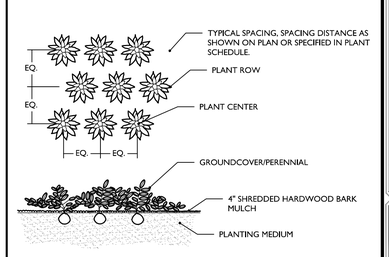


NOTES:

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

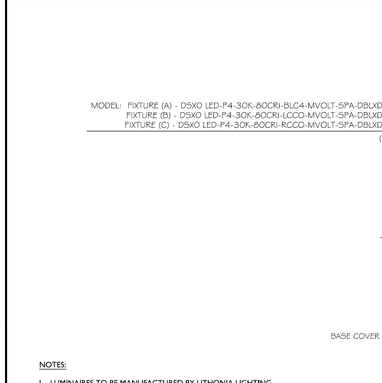


NOTES:

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.

2023\23010468A\Engineering\Site Plans\C-DTLS.dwg|C-16 DETAILS By: KYLE ESHALLOW

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REV	DATE	DRAWN BY	DESCRIPTION
1	05/21/24	KAS	REVISED PER PLANNING BOARD COMMENTS

Digitally signed by Justin E. Dates
Date: 2024.06.25 11:12:39-04'00'

Justin Eric Dates
NEW YORK REGISTERED LANDSCAPE ARCHITECT
LICENSE NUMBER: 001964-01
COLLIERS ENGINEERING & DESIGN CT, P.C.

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

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555 Hudson Valley Avenue
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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: 19 of 19

NOTE: DO NOT SCALE DRAWINGS FOR CONSTRUCTION