

PLANNING COMMISSION REGULAR MEETING THURSDAY, October 14, 2021 (IN PERSON & VIA WEB-EX) CITY COUNCIL CHAMBERS BLOOMINGTON CIVIC PLAZA 1800 WEST OLD SHAKOPEE ROAD BLOOMINGTON, MN 55431 6:00 PM

Members of the public may watch, listen or participate in the meeting in person or via television, computer or phone.

#### To watch, listen or testify by telephone to the meeting:

- 1. Watch BTV (Comcast channels 859 or 14)
- 2. Watch online at <a href="mailto:blm.mn/btv-live">blm.mn/btv-live</a> or the City's YouTube Channel: <a href="mailto:blm.mn/youtube">blm.mn/youtube</a>
- 3. Participate via phone (with or without testimony): 1 (888) 742-5095, Access Code: 8461001098# (The City recommends using a cell phone to eliminate long distance charges)
- 4. Watch/Listen by computer: <a href="https://logis.webex.com/logis/onstage/g.php?MTID=e07df3ca329f8db0b001f2cd231a30704">https://logis.webex.com/logis/onstage/g.php?MTID=e07df3ca329f8db0b001f2cd231a30704</a>; Event Number: 2464 635 1239; Event Password: plan

To aide in the smooth running of the meeting, the City recommends pre-registration for remote testimony for public hearing items: e-mail planning@bloomingtonmn.gov or call 952-563-8920 any time prior to 4:30 p.m. on the date of the meeting to register and receive instruction.

Call-in number for live testimony during the meeting: (The City recommends using a cell phone to eliminate long distance charges)

U.S. and Canada: 1 (888) 742-5095; Conference Code: 8461001098#
 International callers: 1 (619) 377-3319; Conference Code: 8461001098#

ITEM 1 PL2021-191
6:00 p.m. Kraus-Anderson Inc.

Rezone 9728 Lyndale Avenue South from B-4 to B-4(PD) to apply the planned development (PD) overlay zoning district; preliminary development plan for a multi-phased redevelopment of the Clover Shopping Center; and final development plan for a partial redevelopment of the Clover Shopping Center and to construct an approximately 24,000 square foot grocery store with site

modifications

9728 Lyndale Avenue South

ITEM 2 PL2021-192 6:00 p.m. United Properties

(public hearing)

(public hearing) Privately initiated City Code Amendment establishing and defining "MOTOR VEHICLE SALES, HIGH DENSITY" as a land use and

adding the use as a conditional use in the C-1, C-2 and C-3 zoning districts

ITEM 3 PL2021-193

6:00 p.m. Nine Mile Brewing Company and MSP Southtech Investment LLC

(public hearing) 9555 James Avenue South

Change of Condition in Case PL2021-109 for a required sidewalk connection serving a taproom and restaurant located within an

existing multi-tenant office/warehouse building

ITEM 4 City of Bloomington

(study item) Planning Commission Policy and Issue Update

**BloomingtonMN.gov:** A yearly meeting schedule, agendas, and the official minutes, once approved, are available. If you require a reasonable accommodation, please call 952-563-8733 (MN Relay 711) as soon as possible, but no later than 9:00 a.m. one business day before the meeting day.



# **Planning Commission Item**

Originator Planning	Clover Center Redevelopment: Rezoning, PDP/FDP, 9728 Lyndale Avenue
Agenda Section  Item 1	October 14, 2021

Requested Action:

Staff recommends approval using the following motions:

In Case PL2021-191, I move to recommend City Council adopt an ordinance to apply the Planned Development Zoning Overlay to 9728 Lyndale Avenue S.

In Case PL2021-191, having been able to make the required findings, I move to recommend City Council approve preliminary and final development plans to partially redevelop the Clover Center Shopping Center to accommodate an approximately 24,000 square foot grocery store as well as establish future retail and mixed-use development phases, subject to the conditions and Code requirements attached to the staff report.

### Description:

Rezone 9728 Lyndale Avenue South to apply the planned development (PD) overlay zoning district, preliminary development plan for a multi-phased redevelopment of the Clover Shopping Center, and final development plan for a partial redevelopment of the Clover Shopping Center and to construct an approximately 24,000 square foot grocery store with site modifications

Attachments:

Staff Report
Ordinance - Rezoning
Clover Center Rezoning Graphic
Project Narrative
Preliminary Development Plan
Final Develoment Plans
Traffic and Parking Study - Clover Center - FINAL
MnDOT - Clover Center Comments
Hennepin County - Clover Center Comments
DRC Meeting Minutes

DRC Comment Summary Affidavit of Publication PC Notification Map PL202100129

### GENERAL INFORMATION

Kraus-Anderson (applicant and owner) Applicant:

Location: 9728 Lyndale Avenue S.

Request: 1) Preliminary development plans for a partial redevelopment

at the Clover Center shopping center with future retail and

mixed use development phases.

2) Final development plans for a partial redevelopment of Clover Center to accommodate an approximately 24,000

square foot grocery store and reconstructed parking lot.

Existing Land Use and Zoning: Retail shopping and restaurants; zoned B-4 Neighborhood

Commercial Center

North – Motor vehicle sales; zoned B-2 General Business Surrounding Land Use and Zoning:

South – Retail, transit station; zoned B-2 and B-2(PD)

East – Retail, medical office; zoned B-4(PD)

West – Interstate 35W

Community Commercial Comprehensive Plan Designation:

### CHRONOLOGY

Planning Commission 10/14/2021 – Public Hearing Scheduled

City Council 11/15/2021 – Public Hearing Anticipated (Ordinances)

### DEADLINE FOR AGENCY ACTION

09/08/2021 Application Date: 60 Days: 11/07/2021 120 Days: 01/06/2022

01/06/2022 (Extended by City) **Applicable Deadline:** 

Newspaper Notification: Confirmed -(09/30/2021 Sun Current - 10 day notice)

Direct Mail Notification: Confirmed -(500 buffer - 10 day notice)

### STAFF CONTACT

Mike Centinario Phone: (952) 563-8921

E-mail: mcentinario@BloomingtonMN.gov

### **PROPOSAL**

The applicant proposes preliminary and final development plans to build an approximately 24,000 square foot grocery store on the west side of the Clover Center shopping center along Interstate 35W. The grocery store would take the place of what now is currently 98 Pounds Buffet and several smaller retailers. The western half of the parking lot would be reconstructed with a new sidewalk along 98th Street, landscaped parking islands, lighting and pedestrian connections. The roughly eastern half of the shopping center would remain largely the same for the first phase. No changes are proposed for the Wells Fargo bank at the 98th Street and Lyndale corner. However, future development phases include a 119-unit, 8-story mixed use building along Lyndale Avenue and two retail buildings at the corner of 98th Street and Lyndale.

The applicant has requested a rezoning to apply the Planned Development (PD) overlay zoning district to facilitate preliminary and final development plan approval. The PD overlay allows the City Council to approve deviations from City Code as opposed to zoning variances. The standard to approve deviations is a "public benefit" test as opposed to "practical difficulties" for variances. Given the development's age, there are numerous development components that do not meet today's requirements. The planned development process is a common way to approach redevelopment of older sites.

### **ANALYSIS**

### <u>Preliminary Development Plan</u>

An element of the planned development process is to establish a Preliminary Development Plan (PDP), which details future development phases for Clover Center. The proposed PDP depicts a road splitting the existing building in two, which is ultimately intended to connect with Aldrich Avenue to the north. Other phases include future retail development and a high-density mixed use building along Lyndale Avenue S.

The future road connection and development phases would help implement the vision established in the Lyndale Retrofit Plan and 98<sup>th</sup> Street Station Area Plan, which were recently adopted by the City Council. Both plans envision greater development density near, and improved access to, the Orange Line Bus Rapid Transit (BRT) Station. In particular, the high-density mixed-use building located close to the street would enclose and bring activity to the street. The two future retail buildings accomplish some design expectations by locating the buildings along the street and incorporating outdoor seating spaces. Overall, staff believes the corner could support more

Report to the Planning Commission Planning Division/Engineering Division

10/14/2021

development intensity. At a minimum the future buildings must meet floor area and setback standards established in City Code.

## Rezoning

Clover Center was originally built in 1957 and the site development pattern has largely stayed the same for over 60 years. Partially redeveloping older shopping centers is difficult. Apart from a full-scale redevelopment, the City's general approach is to ensure improvements to building design, parking lots, pedestrian accessibility, landscaping, and lighting, while being reasonably flexible on some standards. The process to approve development flexibility is through a planned development, which necessitates the site to have the Planned Development Overlay Zoning District applied.

The "base" zoning district, B-4, would remain the same with the proposed rezoning; the applicant is seeking to apply the PD Overlay Zoning District to the site, which allows the City Council to approve the deviations from City Code. The permitted and conditional uses along with the development intensity and mixed-use district development standards would remain in place. Graphic 1 depicts the zoning map amendment.

Graphic 1: Rezoning to Apply the Planned Development (PD) Overlay



### Code Compliance

Tables 1 and 2 below identifies several City Code requirements for development in the B-4 District. Table 1 lists the complying standards and Table 2 identifies where deviations or revisions are required. The B-4 District is a neighborhood-oriented retail district, which is intended to accommodate more pedestrian-oriented, neighborhood-focused development. Commentary on the preliminary development plan and future development phases follows Tables 1 and 2.

**Table 1: City Code Requirements in compliance – B-4 Zoning District** 

Standard	Code Requirement	Proposed	Compliance
Site Area – 40,000 sq. ft.		206,476 sq. ft.	Yes
Minimum building floor area	4,000 sq. ft.	54,000 sq. ft.	Yes
Drive aisles	24 feet wide for 90 degree parking; Institute of Transportation Engineers (ITE) standard for other parking	24 feet – all 90 degree parking	Yes
Shrubs	149 shrubs (with a perennial allowance)	173 shrubs and 220 perennial plantings	Yes
Trash collection and storage	Interior with interior access	Trash would be located within building	Yes
Public sidewalks	Minimum 8-foot concrete	Reconstruct 98th Street sidewalk - 8-foot concrete	Yes
Private sidewalks	5-feet clear along internal sidewalks with sidewalk connection from street	5-feet clear along internal sidewalks with sidewalk connection from street	Yes
Building articulation	Wall projections or recesses of three or more foot depth for every 100 linear feet of façade along public streets	Wall recesses and height changes along street facing elevations	Yes
Entrance buffer At least 10 feet between public entrance and drive lanes		16 feet	Yes
Floor area ratio	0.2 to 0.5 0.2 to 2.0 (with residential uses)	0.26 – Phase I 0.83 – Full buildout	Yes

Table 2: City Code Requirements – deviation or revision – B-4 Zoning District

Standard	Code Requirement	Proposed	Compliance
Parking lot setback	20 feet	11 to 15 feet along 98th St.; 4 to 60+ feet along I-35W	Deviation required
Parking lot – interior setback	5 feet	3 feet to 5+ feet	Deviation required
Parking – minimum	253 stalls	226 stalls	Deviation required
Trees	45 trees	29 trees	Revisions required

Standard	Code Requirement	Proposed	Compliance
Exterior building materials	85 percent of each building elevation cladded with permitted primary material (brick, stone, stucco, glass, metal panels)	Glass, brick, metal panels, with unknown quantities of architectural panels and concrete masonry units (CMUs) and painted brick	Revisions required
Parking islands	8 feet minimum width with one tree or more	Parking islands are a minimum 8 feet wide, additional trees required	Revisions required
Minimum building size	4,000 sq. ft.	2,400 and 3,000 – future retail buildings	Revisions required (to PDP)

### **Building Design**

The exterior materials proposed for the grocery are a mix of glass, brick, metal panels, and architectural panels. The south building elevation depicts glass prominently, which would serve as an inviting front entrance and appears to meet the City Code's minimum 50 percent transparency requirement between 2 and 10 feet. Brick and metal panels would complement the glass along with a panel system. Details on what the architectural panels entail was not provided, but if they are fiber cement panels, for example, they would exceed the 15 percent secondary building material allowance for the south elevation. Staff will continue to work with the applicant on meeting exterior material Code requirements.

Additional work is needed along the west and north building elevations. The north building elevation was not included in the submittal. The west building elevation depicts a significant proportion of concrete masonry units and architectural panels. This material palette does not meet the City's requirements and revisions are necessary. In addition to building material requirements, the west elevation must be at least 25 percent transparent between 2 and 10 feet above grade. The City Code includes design alternatives to transparency for back of house areas. Display boxes, green walls, and artwork may be incorporated into the design instead of glass.

Exterior renovations are also proposed for what would remain of the existing building. The material palette to retrofit the existing façade is similar to the new facades, albeit depicting painting existing brick. Painting brick exteriors is not permitted and staff does not support development flexibility from this standard due to concerns over maintenance and the impact it may have within the building. The applicant has acknowledged this compliance issue and may change the development's color scheme and maintain the existing brick as it is today.

### Landscaping and Lighting

The proposed development would significantly improve landscaping and lighting at Clover Center. The newly established landscaping yards and parking islands would transform the appearance of parking areas between the building and street. The proposed plans depict 29 new trees, 173 shrubs,

and several hundred perennial plantings. The redevelopment of about half of the building area triggers compliance with landscaping standards. However, because the preliminary development plan outlines phased redevelopment, staff is supportive of a landscaping requirement based on *disturbance* area. Using this standard, 45 trees would be required, which is a more sensible landscape quantity given the scope of Phase I. As future phases move forward, each phase would include Code-compliant landscaping plans for particular development. Most parking islands include the required deciduous tree, but 16 trees would need to be added with staff's recommendation. No landscaping is proposed along the south building elevation. Plans depict significant areas of concrete that would benefit from trees, either in planters or perhaps tree grates.

Exterior lighting design is underway, but photometric plans must be approved prior to the issuance of a building permit. Generally, the majority of the parking lot surface must maintain at least 2.0 footcandles. Pedestrian crossings require additional footcandles so the crossing is easier to differentiate from drive lanes. Parking lot perimeter areas may be reduced to 1.0 footcandles. The main entrances require at least 10 footcandles maintained. Initial and maintained lighting plans must be approved by a certified lighting professional (LC) or a professional electrical engineer (PE).

### Access, Circulation, and Parking

Pedestrian infrastructure along 98th Street from the central access point into the center to I-35W is lacking. Similarly, there is currently no direct pedestrian connection from 98th Street to the building. Staff focused on the need to improve pedestrian infrastructure and connectivity. The grading plan depicts re-grading the parking lot so the parking area along 98th Street is only two to three feet below the street elevation. This re-grading allows the retaining wall and fence along 98th Street to be removed. The narrow sidewalk between the retaining wall and the street would be replaced with an 8-foot sidewalk and 5-foot grass boulevard. A north/south sidewalk would connect the retail spaces to the street providing the much needed pedestrian connection. The sidewalk is wide enough to account for vehicle overhang so a 5-foot clear walking width is maintained. These features are Code complying and represent noteworthy improvements over existing conditions.

An independent engineering firm conducted a traffic and parking study to analyze how the redevelopment would impact traffic at the site and made recommendations on circulation improvements. More detailed information on the traffic study follows. Parking lot improvements, parking islands, and landscaping yards along streets reduce the overall parking supply, but staff believes the proposed parking supply is more than adequate. The proposed parking supply and corresponding deviation from City Code identified in Table 3 is 10.5 percent, which does not include any reductions for internal capture or proximity to Orange Line BRT stations. The parking study further supports the proposed parking reduction by concluding there would be ample parking supply for the proposed use mix.

**Table 3: Parking Analysis** 

Clover Center Parking Analysis			
Use	GFA or Seats	Standard	Parking Requirement
Grocery	24,020	1 stall per 225 gross floor area	106.8
Retail	29,980	55 spaces plus additional 1 space per 220 square feet of gross floor area over 10,000 square feet	145.8
Bank	4,551	1 stall per 240 gross floor area	19.0
Total Parking Requirement		252.6 stalls	
Proposed Parking		226 stalls	
Deviation from City Code		10.5 Percent	

### Stormwater Management

Stormwater will be managed to meet the City's and Watershed District's requirements for stormwater rate control (quantity), stormwater quality and volume.

The Preliminary Stormwater Management plan calculations and narrative submitted propose a large underground stormwater infiltration structure. The subject parcel is an identified contaminated Superfund site per the MPCA (MPCA #SR0001389, site ID #20166) due a prior dry cleaning operation at this location. The feasibility of using infiltration on this site in light of its Superfund status needs to be investigated and approved by the MnDOT Office of Environmental Stewardship Contaminated Materials Management Team before MnDOT is able to process the drainage permit needed based on the proposed design. The final design must also meet the requirements of the City of Bloomington Comprehensive Surface Water Management Plan.

A maintenance plan has not yet been provided and will be required to be signed and filed at Hennepin County. This site is located within the Nine Mile Creek Watershed District, so an additional watershed district permit will be required.

Staff has communicated to the applicant that both the City and Nine Mile Creek Watershed District are interested in exploring the possibility to provide additional stormwater management onsite beyond the project requirements. The Nine Mile Creek Watershed District has potential funds available to assist with additional onsite treatment should the applicant be interested.

### **Utilities**

The development is proposed to be served by both City sanitary sewer and water facilities. An 8-inch watermain loop water system (supply from two points) should be provided to increase reliability of service and reduction of head loss.

Adequate fire hydrant coverage must be provided to serve the proposed building. The City Engineer must approve the utility plans before the issuance of a building permit.

An exterior grease interceptor and grease interceptor maintenance agreement will be required based on the proposed use of the new building.

### Traffic Analysis

Access to the Clover Center is provided via two driveways onto Lyndale Ave; a full access driveway on the north end, and a right-out only driveway on the south end. A third access is located on the southerly side of the site provides ¾ access via right-in, right-out and eastbound left turns into the site from W 98th St/W Old Shakopee Rd (CSAH1).

Given the increased trips generated by the proposed development, the property abutting two arterial roadways (Lyndale Avenue & W 98th St/W Old Shakopee Rd), and the existing traffic issues, Alliant Engineering was hired to perform a traffic impact analysis for the proposed development. The traffic study analyzed the existing traffic operations for the site as well as changes resulting from the proposed development.

Alliant Engineering provided a detailed analysis of the existing and proposed traffic generated by the site and the impacts to the adjacent public roadway network, as well as the internal site circulation of Clover Center. Recommendations were provided to address current operational issues, as well as mitigate future issues that may arise from the proposed development. Of particular note are the following locations:

### Lyndale Ave Driveways:

Currently, the full access northerly driveway has no pavement markings delineating dedicated lanes for inbound and outbound vehicle movements. With the anticipated additional trips generated by the proposed grocery store pavement markings must be added on the driveway defining and identifying a dedicated left and right turn lane for vehicles exiting the site, as well as an incoming lane for entering vehicles. The current driveway width may need to be expanded to accommodate the three identified lanes. Adequate lane width must be provided to allow vehicles travelling southbound on Lyndale Ave to make right turn into the site when exiting vehicles are queued at the driveway waiting to make a left or right turn onto Lyndale Ave.

With the north driveway being identified as the main point of entry for delivery vehicles supplying the proposed grocer, the developer will need to model and design the driveway to allow for the movement of large trucks. The developer will also be required to demonstrate the clear view triangles at this location are clear and free of any obstructions. The current Clover Center sign located on the northeast corner of the site is located within the clear view triangle and will need to be removed or relocated.

The southerly Lyndale driveway is proposed to remain as right-out only because the existing trees and parking stalls on the north side of the driveway obstruct the view of southbound traffic on Lyndale Ave vehicles for exiting vehicles. The developer will need to demonstrate the clear view triangles at this location are free of obstructions. In order to achieve this the developer may have to remove or relocate trees and eliminate a parking stall(s) on the north side of the driveway.

### W 98th St/W Old Shakopee Rd Driveway:

The driveway is proposed to remain a ¾ access with the redevelopment, with the current left turn restriction for exiting traffic onto W 98th St/W Old Shakopee Rd remaining. The traffic study recommends improvements at this driveway in conjunction with the proposed development. The recommendations include constructing a larger median island in the driveway opening to reinforce the right-out only condition and make it physically difficult for vehicles to try to make the prohibited left turn out movement. The developer will need to model and design the median island to accommodate larger delivery vehicles exiting the site without having them run onto or over the median island, which could potentially damage or knock down signage located within it. If said turning movements cannot be accommodated, then the developer will be required to prohibit use of the driveway by trucks and provide an alternative exit for delivery vehicles. In addition to the hardscape improvements additional signage reinforcing the prohibited movements is recommended at this location.

With the anticipated increased trips to the site as result of the proposed development improvements to the protected left turn lane on Old Shakopee Road are recommended by the traffic study. The improvements include lengthening the left turn lane to provide additional storage capacity for vehicles waiting to turn into the site from W 98th St/W Old Shakopee Rd. This additional capacity can be provided by shortening the current taper of the curb line at the point where the turn lane develops. Additional curb modifications should be considered to narrow or realign the opening in the median along W 98th St/W Old Shakopee Rd to better align left turning vehicles with the driveway opening and further restrict the prohibited left turns exiting the site.

### Internal Site Circulation:

With the increase in trips to the site, the internal site circulation will need to be managed to provide for the safe and efficient movement of vehicles. The developer is proposing one-way westbound traffic for the drive lane running along the north side of the site behind the existing and proposed buildings. This drive lane is proposed to be utilized for delivery traffic only and not for customers visiting the site. Clear wayfinding signage must be provided to not only denote this drive lane as being for delivery vehicles only, but also to direct vehicles entering the site how to access the businesses. Since the north drive lane is aligned with the only full access driveway to the site, clear guidance to drivers will be paramount.

Additional wayfinding signage and pavement markings will be required as vehicles entering the site from Lyndale Ave will need to traverse along drive aisles with parking stalls located on both sides along with the existing building storefronts. Particular attention will need to be paid to the area

Report to the Planning Commission Planning Division/Engineering Division

adjacent to the southerly driveway onto Lyndale Avenue where the driving task is very complex because of vehicles exiting the Wells Fargo drive-thru mixing with traffic entering and exiting the Clover Center site adjacent to the high turnover coffee shop. Open sight lines and clear positive guidance for drivers will be critical to allow the site to function safely.

The proposed site plan shows parking aisles teeing off east and west of the main north-south drive lane off of W 98th St/W Old Shakopee Rd. The location of the proposed drive aisles are too close to the driveway at W 98th St/W Old Shakopee Rd. The short distance could cause issues with vehicles blocking the driveway entrance and backing traffic onto 98th Street. Staff recommends the southerly drive aisle access to the north-south drive lane be eliminated to improve the traffic flow at this location.

The traffic study was reviewed by both Hennepin County and MnDOT and their comments have been included in the agenda item materials.

## Transit and Transportation Demand Management (TDM)

This redevelopment will require a Tier 2 TDM plan, which allows the property owner to choose from a menu of TDM options. The owner has not yet submitted a Tier 2 TDM checklist.

### Fire Prevention and Public Safety

The access and circulation design must meet or exceed the minimum standards for fire prevention and be maintained in accordance to the approved plan including a surface to provide all weather driving capabilities, minimum 20 foot wide clear access and turning radius to accommodate BFD Ladder 3. Apparatus access roads shall be asphalt or concrete and support a minimum of 80,000 pounds.

The buildings/businesses must be addressed plainly and visible from the street or road using numbers that contrast with the background. The numbers must be a minimum or four inches, be Arabic numbers or alphabetic letters with a minimum stroke width of 0.5 inches.

The applicant must ensure insure the proposed landscaping plans don't interfere with access to the buildings. The applicant proposes adequate water supply with a hydrant within 50 feet of the fire department connection and within 150 feet of any exterior wall. The hydrants must be clearly visible from the emergency vehicle access road. Hydrants will be approved by the Utilities and Fire Prevention Divisions.

Knox boxes and annunciator panels will be required at the main entrances and other areas as designated by the Fire Prevention Division. All exterior doors that allow access to the interior of the building(s) should be numbered in a sequential order starting with the main entrance (public entrance) as number 1 and continuing in a clockwise manner. Each separate building will have its own sequence of numbers.

Provide for emergency responder radio coverage throughout the complex and in all structures per the requirements of Appendix P in the 2020 Minnesota State Fire Code.

Any changes made to the current plans, including building location, access roads, water supply and addressing, must be reviewed by the Fire Marshal to insure continued compliance with the fire code.

### Status of Enforcement Orders

There are no open enforcement orders for the site.

## **FINDINGS**

### Required Preliminary Development Plan Findings - Section 21.501.02(d)(1-6):

	Required Finding	Finding Outcome/Discussion
(1)	The proposed use is not in conflict with the Comprehensive Plan	Finding made – There is no conflict between the proposed development and the Comprehensive Plan. The proposed grocery store redevelopment and future commercial and residential development is consistent with the Comprehensive Plan's Community Commercial designation.
(2)	The proposed use is not in conflict with any adopted District Plan for the area	Finding made – Although there is no adopted District Plan for the area, the City recently adopted the 98th Street Station Area Plan and Lyndale Retrofit Plan. The proposed preliminary development plan is generally consistent with these two plans, which calls for greater development intensity, improved pedestrian connectivity, and a future north/south road connection from Aldrich Avenue to the north to 98th Street.
(4)	All deviations from City Code requirements are in the public interest and within the parameters allowed under the Planned Development Overlay Zoning District or have previously received variance approval Each phase of the proposed development is of sufficient size, composition, and arrangement that its construction, marketing, and operation is feasible as a complete unit without dependence upon any subsequent unit	Finding made – The proposed deviations would facilitate a development that reinvests in the Clover Center while in large part bring the shopping center closer to City Code compliance. The deviations would not have an adverse impact on the surrounding neighborhood and are in the public interest.  Finding made – The planned development's Phase I, the proposed grocery store, is not dependent on subsequent phases.
(5)	The proposed development will not	Finding made – Given the size and characteristics of the

so fa aı	reate an excessive burden on parks, chools, streets, and other public acilities and utilities which serve or re proposed to serve the planned levelopment; and	proposed development, an excessive burden is not anticipated on parks, schools, streets, the sanitary sewer system or the water system once planned sanitary sewer improvements are completed in the area. The proposed development would improve vehicle and pedestrian access and circulation, along with significant improvements to drainage.
in	The proposed development will not be njurious to the surrounding neighborhood or otherwise harm the public health, safety and welfare	Finding made – The proposed development is not anticipated to be injurious to the surrounding neighborhood or otherwise harm the public health, safety and welfare. Building design, site circulation, and parking supply Community Commercial uses within the City of Bloomington.

# Required Final Development Plan Findings – Section 21.501.03(e)(1-7)

	Required Finding	Finding Outcome/Discussion
(1)	The proposed use is not in conflict with	Finding made – There is no conflict between the
	the Comprehensive Plan	proposed development and the Comprehensive Plan.
		The proposed grocery store redevelopment and future
		commercial and residential development is consistent
		with the Comprehensive Plan's Community
		Commercial designation.
(2)	The proposed use is not in conflict with	Finding made – Although there is no adopted District
	any adopted District Plan for the area	Plan for the area, the City recently adopted the 98 <sup>th</sup>
		Street Station Area Plan and Lyndale Retrofit Plan. The
		proposed preliminary development plan is generally
		consistent with these two plans, which calls for greater
		development intensity, improved pedestrian
		connectivity, and a future north/south road connection
		from Aldrich Avenue to the north to 98th Street.
(3)	The proposed development is not in	Finding made – The final development plan is
	conflict with the approved preliminary	consistent with Phase I of the preliminary development
	development plan for the site	plan.
(4)	All deviations from City Code	Finding made – The proposed deviations would
	requirements are in the public interest	facilitate a development that reinvests in the Clover
	and within the parameters allowed under	Center while in large part bring the shopping center
	the Planned Development Overlay	closer to City Code compliance. The deviations would
	Zoning District or have previously	not have an adverse impact on the surrounding
	received variance approval	neighborhood and are in the public interest.
(5)	The proposed development is of	Finding made – The planned development's Phase I,
	sufficient size, composition, and	the proposed grocery store, is not dependent on
	arrangement that its construction,	subsequent phases.

Report to the Planning Commission Planning Division/Engineering Division

(6)	marketing, and operation is feasible as a complete unit without dependence upon any subsequent unit  The proposed development will not create an excessive burden on parks, schools, streets, and other public facilities and utilities which serve or are proposed to serve the planned development; and	Finding made – Given the size and characteristics of the proposed development, an excessive burden is not anticipated on parks, schools, streets, the sanitary sewer system or the water system once planned sanitary sewer improvements are completed in the area. The proposed development would improve vehicle and pedestrian access and circulation, along with significant improvements to drainage.
(7)	The proposed development will not be injurious to the surrounding neighborhood or otherwise harm the public health, safety and welfare	Finding made – The proposed development is not anticipated to be injurious to the surrounding neighborhood or otherwise harm the public health, safety and welfare. Building design, site circulation, and parking supply Community Commercial uses within the City of Bloomington.

### RECOMMENDATION

Staff recommends approval using the following motions:

In Case PL2021-191, I move to recommend City Council adopt an ordinance to apply the Planned Development Zoning Overlay to 9728 Lyndale Avenue S.

In Case PL2021-191, having been able to make the required findings, I move to recommend City Council approve preliminary and final development plans to partially redevelop the Clover Center Shopping Center to accommodate an approximately 24,000 square foot grocery store as well as establish future retail and mixed-use development phases, subject to the conditions and Code requirements attached to the staff report.

### RECOMMENDED CONDITIONS OF APPROVAL

Case PL2021-191

**Project Description:** Rezone 9728 Lyndale Avenue South from B-4 to B-4(PD) to apply the planned development (PD) overlay zoning district; preliminary development plan for a multi-phased redevelopment of the Clover Shopping Center; and final development plan for a partial redevelopment of the Clover Shopping Center and to construct an approximately 24,000 square foot grocery store with site modifications.

### Address: 9728 LYNDALE AVE S

The following conditions of approval are arranged according to when they must be satisfied. In addition to conditions of approval, the use and improvements must also comply with all applicable local, state, and federal codes. Codes to which the applicant should pay particular attention are included below.

- 1. Prior to Permit A Site Development Agreement, including all conditions of approval, must be executed by the applicant and the City and must be properly recorded by the applicant with proof of recording provided to the Director of Community Development.
- 2. Prior to Permit Grading, Drainage, Utility and Erosion Control plans must be approved by the City Engineer.
- 3. Prior to Permit Final development plans must be consistent with the preliminary development plan. Future development phases in the preliminary development plan must meet building floor area and setback requirements in the B-4 Neighborhood Commercial Zoning District.
- 4. Prior to Permit Access, circulation and parking plans must be approved by the City Engineer.
- 5. Prior to Permit Sewer Availability Charges (SAC) must be satisfied.
- 6. Prior to Permit Bicycle parking spaces must be provided and located throughout the site as approved by the City Engineer.
- 7. Prior to Permit An erosion control surety must be provided (16.08(b)).
- 8. Prior to Permit Landscape plan must be approved by the Planning Manager and landscape surety must be filed (Sec 21.301.15).
- 9. Prior to Permit Food service plans must be approved by the Environmental Health Division (City Code Sec. 14.360).
- 10. Prior to Permit A Hennepin County permit for work within the right-of-way must be obtained and a copy submitted to the Engineering Division prior to work beginning in the right-of-way.
- 11. Prior to Permit Parking lot and site security lighting plans must satisfy the requirements of City Code Section 21.301.07.
- 12. Prior to Permit Exterior building materials must be approved by the Planning Manager and meet requirements in Section 19.63.08 of the City Code.
- 13. Prior to Permit Storm Water Management Plan must be provided that demonstrates compliance with the City's Comprehensive Surface Water Management Plan. A maintenance plan must be signed by the property owners and must be filed of record with Hennepin County.

The properties must be platted per Chapter 22 of the City Code and the 14. Prior to Permit approved final plat must be filed with Hennepin County prior to the issuance of any permits (22.03(a)(2)). 15. A Nine Mile Creek Watershed District permit must be obtained and a copy Prior to Permit submitted to the Engineering Division. 16. Prior to C/O An external grease interceptor must be provided if the proposed tenant will have food preparation and service that will produce fats, oils, grease or wax in excess of 100 mg/L. The external grease interceptor design must be approved by the Utilities Engineer. A grease interceptor maintenance agreement must be filed with the Utilities Division, if an external grease interceptor is installed. Poured-in-place concrete curbs must be provided on the perimeter of parking 17. Ongoing lots and traffic islands (Sec 21.301.06). All loading and unloading must occur on site and off public streets. 18. Ongoing 19. Signs must be in compliance with the requirements of Chapter 19, Article X Ongoing of the City Code and Uniform Design Plan. 20. Ongoing All construction stockpiling, staging and parking must take place on site and off adjacent public streets and public right-of-way. All rooftop equipment must be fully screened (Sec. 21.301.18). 21. Ongoing Alterations to utilities must be at the developer's expense. 22. Ongoing 23. Ongoing All trash and recyclable materials must be stored inside the principal building (Sec. 21.301.17). 24. Ongoing A minimum 8-foot sidewalk must be installed along W. 98th Street west of the vehicle access point at the developer's expense (Section 21.301.04(b)(1)). 25. Three foot high parking lot screening must be provided along W. 98th Street Ongoing as approved by the Planning Manager (Sec. 21.301.15).

### **ORDINANCE NO. 2021 -**

# AN ORDINANCE AMENDING THE ZONING MAP BY APPLYING THE PLANNED DEVELOPMENT (PD) OVERLAY ZONING DISTRICT TO 9728 LYNDALE AVENUE SOUTH.

The City Council of the City of Bloomington ordains that the zoning map of the City of Bloomington, Minnesota, is hereby amended as follows:

### Section 1.

- 1.01 The subject property at 9728 Lyndale Avenue S. is hereby rezoned from B-4 Neighborhood Commercial Center to B-4(PD) Neighborhood Commercial Center(Planned Development).
- 1.02 The property is legally described as:

That part of the Southeast ¼ of the Northeast ¼ of Section 16, Township 27 North, Range 24, West of the 4<sup>th</sup> Principal Meridian, described as follows: Commencing at a point on the East line of the Southeast Quarter of the Northeast Quarter of Section 16, Township 27, Range 24, 855.68 fee South of the Northeast corner of said Southeast Quarter; thence West along a line drawn parallel to the North line of said Southeast Quarter of the Northeast Quarter to the Easterly right of way line of Interstate Highway No. 35W; thence Southerly along said Easterly right of way line to the South line of the Northeast Quarter of said Section 16; thence East along said South line of Said Northeast Quarter to the Southeast corner thereof; thence North to point of beginning, excepting however, the South 233 feet of the East 183 feet thereof, according to the United States Government Survey thereof and situate in Hennepin County, Minnesota.

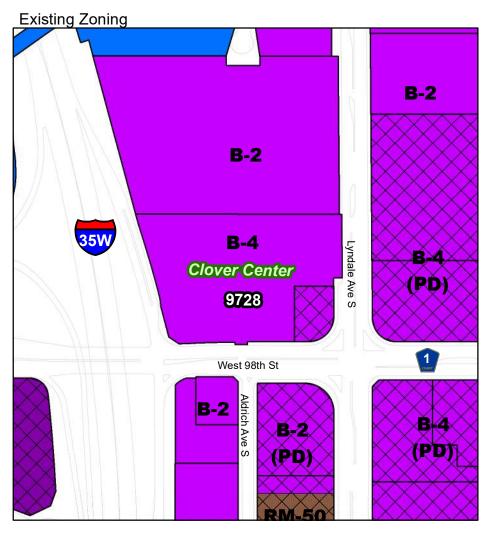
### **Section 2.** This ordinance is based upon the following findings:

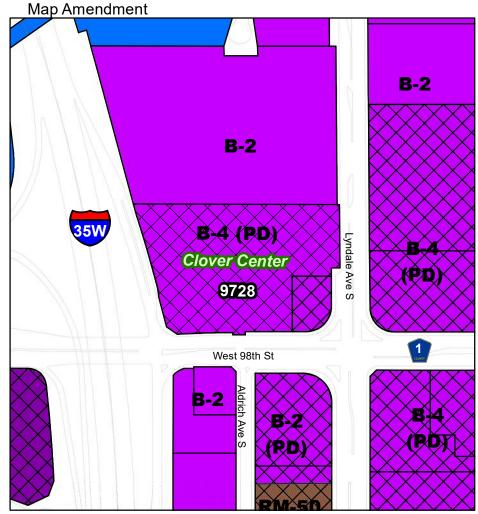
- 2.01 The rezoning is consistent with the intent of the zoning ordinance and of the Comprehensive Guide Plan.
- 2.02 The rezoning is consistent with public health, safety, and welfare.

Passed and adopted this day	of November, 2021
	Mayor
Attest:	Approved:
Secretary to the Council	City Attorney

# Proposed Zoning Map Amendment

Rezone from B-4 to B-4(PD)





**Case File:** #PL2021-191

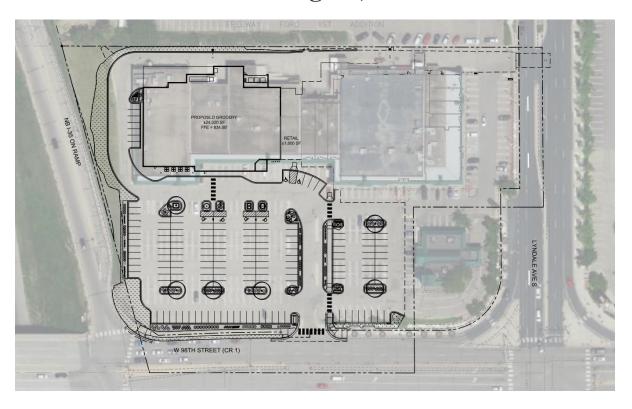
**Applicant:** Kraus-Anderson, Inc.

Property Location: 9728 West 98th Street

# Kimley » Horn

# Clover Shopping Center Redevelopment Preliminary Development Plan

# **Bloomington, MN**



# **Project Narrative**

September 8, 2021

**Developer:** Kraus-Anderson Development

501 South Eighth Street Minneapolis, MN 55404

Prepared By: Kraus-Anderson Development

Kimley-Horn and Associates, Inc.

**RSP Architects Ltd** 



### A. DEVELOPMENT APPLICATION REQUESTED ACTIONS

The requested actions for the *Clover Shopping Center Redevelopment* Development Application will be as follows:

Preliminary Development Plan Approval for Clover Shopping Center Redevelopment – Phase 3
Rezoning Approval to apply Planned Development (PD) overlay to the existing B-4 zoning

The Development Application for the Clover Shopping Center Development Application anticipates adhering to the following approval schedule:

Pre-Application DRC Meeting (completed)

Submit Development Application to the City

Post-Application DRC Meeting

Resubmittal Prior to Planning Commission, if required

Planning Commission Hearing

City Council Meeting

City Council Hearing

October 25, 2021

November 15, 2021

The Development Application will include the following:

- Development Application
- Development Application Fees (paid online)
- Development Application Documents
  - Project Narrative
  - 2. Civil Engineering Plans Kimley-Horn and Associates
  - 3. Landscape Architecture Plans Kimley-Horn and Associates
  - 4. Architectural Rendered Elevations RSP Architects
  - 5. Massing Plan (full buildout) RSP Architects
  - 6. Stormwater Management Report Kimley-Horn and Associates
  - 7. Preliminary Traffic Study Alliant Engineering, Inc.

### **B. PROJECT LOCATION**

The project will be located on portions of the existing Clover Shopping Center, located in the NW quadrant of Lyndale Avenue S., and W 98<sup>th</sup> Street (Old Shakopee Rd) in Bloomington, MN. The site currently contains multiple commercial buildings and associated parking, utilities, and landscaping.

The property is bounded to the north by an adjacent auto dealership (Freeway Ford), to the west by I-35W, to the south by W 98<sup>th</sup> Street (Old Shakopee Rd), and to the east by Lyndale Avenue S.



### C. PROJECT DESCRIPTION

The project will consist of a proposed 24,020 SF (single-story) grocery store, and an adjacent 1,800 SF retail use, in-line with the remainder of the existing shopping center. Both buildings will be single-story and will require partial demolition of the existing strip building on the site.

The project will also include associated utilities, stormwater management, landscaping, site lighting, and modifications to the existing parking lot, to serve the proposed buildings.

#### D. PROPERTY DESCRIPTION

#### 1. Plat information:

- a. The project site is currently recorded as a metes & bounds property.
- b. It is understood that platting will be required to assign a lot & block designation to the property. Furthermore, it is understood that the project will be subject to a Type II platting process. An application for preliminary and final platting is targeted by the project team on 9/29/21.

### 2. Site Drainage:

- a. The project proposes a stormwater management system consisting of underground pipe storage to meet the requirements of the City of Bloomington and Nine Mile Creek Watershed District.
- b. Stormwater management will consider runoff rate, volume, and water quality management requirements as outlined by the City of Bloomington and Nine Mile Creek Watershed District.

### 3. Right-of-Way Easements:

a. It is not anticipated that right-of-way dedication or a pedestrian facilities easement will need to be dedicated on the W 98<sup>th</sup> Street frontage on the south side of the property to accommodate the construction of a boulevard and sidewalk meeting City of Bloomington standards.

### 4. Wetlands:

a. There are no wetlands in the vicinity of the proposed improvements.

### 5. Topography:

a. The on-site topography is generally level, with elevations ranging from elevation  $\sim$  833' to 828'. There is an existing retaining wall along the southern and southwestern edges of the property that will be removed in the proposed conditions by raising the



on-site grades to reduce the grade differential between the right-of-way and the grades on-site. The southern portion of the site generally slopes from east to west, towards the NB I-35W on-ramp, ultimately discharging into a MnDOT storm sewer system. The northern portion of the site drains north and west towards an existing offsite culvert, and ultimately into MnDOT's storm sewer system. The project team will be coordinating with MnDOT on proposed modifications in this location.

### 6. Flood Plain:

- a. According to the FEMA Flood Insurance Rate Map, the site is not located in a documented floodplain.
- b. The site is NOT located within the Special Flood Hazard Area (SFHA) or the Flood Hazard Overlay District (FH) as defined by the City.

### 7. Access:

a. There are multiple existing shared accesses into the property. The northeast access off of Lyndale Ave S is the only full access into the property. The eastern access off of Lyndale Ave S is a right-in / right-out and the southern access off of W 98<sup>th</sup> Street is a ¾ access. No new access drives are proposed as part of the project. However, it is understood that the City desires modifications to the W 98<sup>th</sup> Street access as part of this project.

### E. PROPOSED PROJECT

- 1. General Project Description:
  - a. Site to include an approximate 24,020 SF grocery store and 1,800 SF retail, constructed in-line with the remaining portions of the existing strip center.
  - b. Site to include underground stormwater management facilities, underground utilities, site lighting, and modifications to the existing parking lot configuration.

### 2. Height:

- a. Grocery: 24'
- b. Retail: 14'
- 3. Exterior Architectural Design and Materials
- 4. Landscaping and Irrigation
  - a. Existing trees will be required to be removed as part of the project.
  - b. It is the intent of the project to meet landscaping setbacks, materials, and irrigation requirements through new landscaping



### F. ZONING CODE ANALYSIS

- 1. Comprehensive Plan
  - a. Section 2 of the current Comprehensive Plan (*Forward 2040*) Land Use Guide Plan designates the project site as Community Commercial (CC).

### 2. Zoning:

c. The site is currently zoned as Neighborhood Commercial Center (C-4) and it is understood that rezoning to a Planned Development (PD) will be necessary based on the proposed improvements. The applicant is requesting consideration for rezoning to apply the PD overlay to the property.

### 3. Airport Zoning:

- a. The site is NOT located within close proximity to the MSP International airport, and it is assumed that the proposed improvements will not require review through the Federal Aviation Administration (FAA), but this will be confirmed through the permitting process.
- 4. Floor Area Ratio (min/max):
  - a. B-4: 0.2 / 0.5\*
    \*(2.0 w/ residential)
- 5. Setback Requirements:
  - a. Along Public Street
    - i. (min) = 10 feet or width of required public easement
    - ii. (max) = 40 feet
  - b. Side Yard Setback (min) = 10 feet
  - c. Rear Yard Setback (min) = 15 feet
- 6. Building Height:
  - a. There is no building height limit in the B-4 district.
- 7. Parking:
  - a. Grocery = 1 space per 225 square feet of gross floor area
  - b. Retail Sales and/or Service (under 10,000 SF) = 1 space per 180 SF



### 8. Building Design

- a. Section 19.29(j)(1) Public entrance requirements
- b. Section 19.29(j)(2) Building façade requirements
- 9. Open Space and Landscaping:
  - a. City Code Section 19.52 for landscaping and screening requirements.
  - b. City Code requires:
    - i. 95% maximum impervious
    - ii. Where a parking island is immediately adjacent to one or more parking stalls, the island length must be three feet shorter than the adjacent stall to promote ingress and egress into the stall.
    - iii. A minimum of one deciduous tree must be provided per parking lot island.
    - iv. Parking island with tree minimum of 8 foot width.
    - v. One tree required per 2,500 square feet of developable landscaping area.
    - vi. One shrub required per 1,000 square feet of developable landscaping area.
- 10. Signage: Must comply with City Code Sections 19.115 (B-4), or Class VIII sign district requirements.

### F. PARKING ANALYSIS

- a. The existing Clover Shopping Center currently has 243 stalls
- b. After accounting for the change in GLA and the allowable City and Transit reductions, the total number of stalls required by code is 284 stalls.
- c. The current site plan proposes 226 stalls and will require development flexibility by way of rezoning to a Planned Development (PD). Additional stalls could be gained by converting a portion of the proposed stalls to compact spaces.
  - a. Up to 20% of total number of required parking may be for compact cars that have a minimum space size of 8 feet by 16 feet for 90° angle parking.

### **G. TRAFFIC**

a. A Preliminary Traffic Study has been prepared by the City's traffic consultant, and is included in this submittal as an attachment.

### H. STORMWATER MANAGEMENT

a. The proposed storm water management plan for the Clover Shopping Center Redevelopment project will be consistent with the City of Bloomington design



standards as well Nine Mile Creek Watershed District's Rules, which was last revised in May of 2019. The proposed storm water treatment and conveyance systems design adhere to the following requirements:

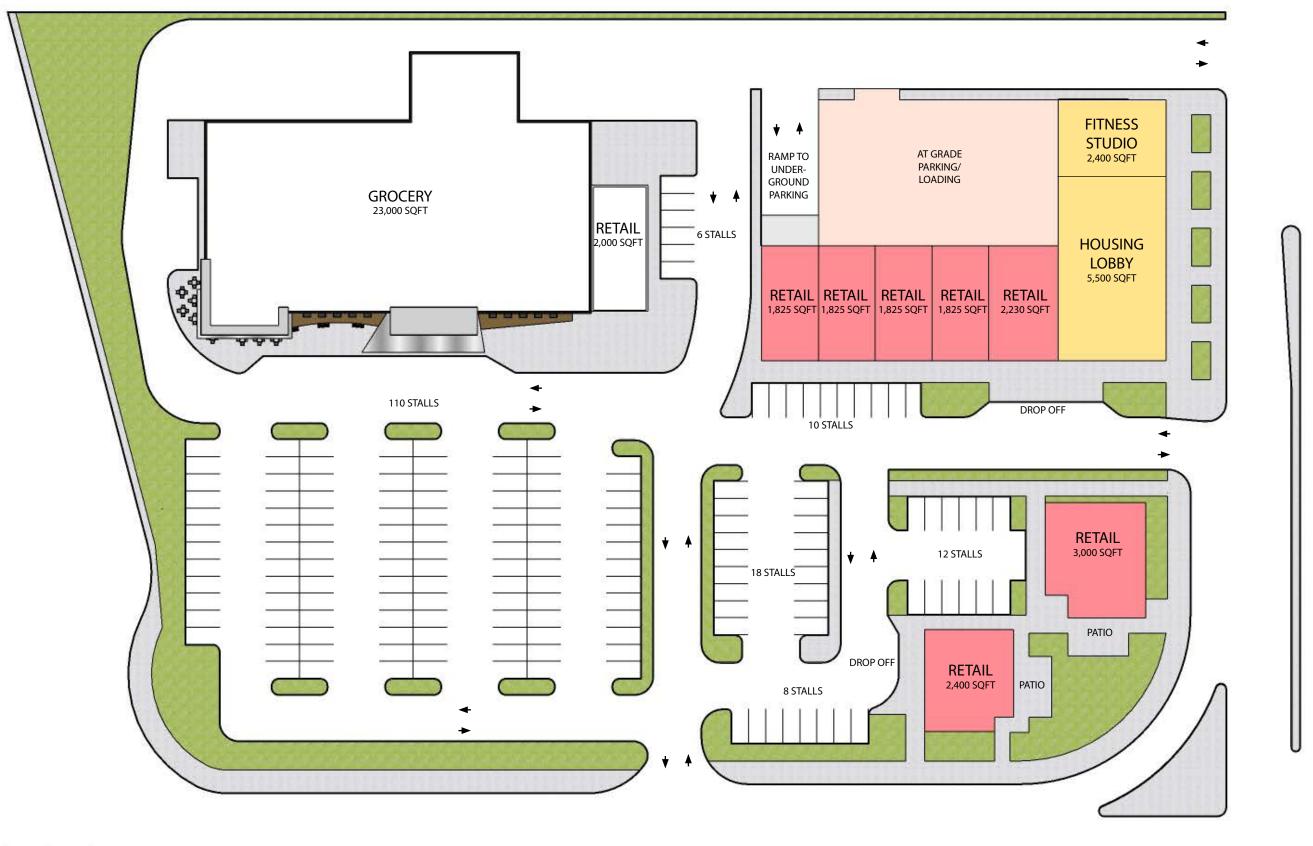
- i. All new storm sewers must be sized to accommodate the 10-year storm event.
- ii. Site discharge is restricted to pre-development runoff rates.
- iii. Abstraction requirements
- iv. Water Quality requirements
- b. As the project proceeds, the development team will explore the possibility with the City of Bloomington and Nine Mile Creek Watershed on the potential to provide additional stormwater management onsite beyond the project requirements.

### I. LIGHTING

a. Lighting in the proposed conditions will generally be consistent with existing conditions, and modified as necessary based on the updated Site Plan. Preliminary light pole locations are shown on the Site Plan included in this submittal. A photometric plan will be included provided at a future date.

### J. UTILITIES

- 1. Water Main
- 2. Sanitary Sewer
- 3. Storm Sewer
- 4. Communications
- 5. Electrical
- 6. Natural Gas



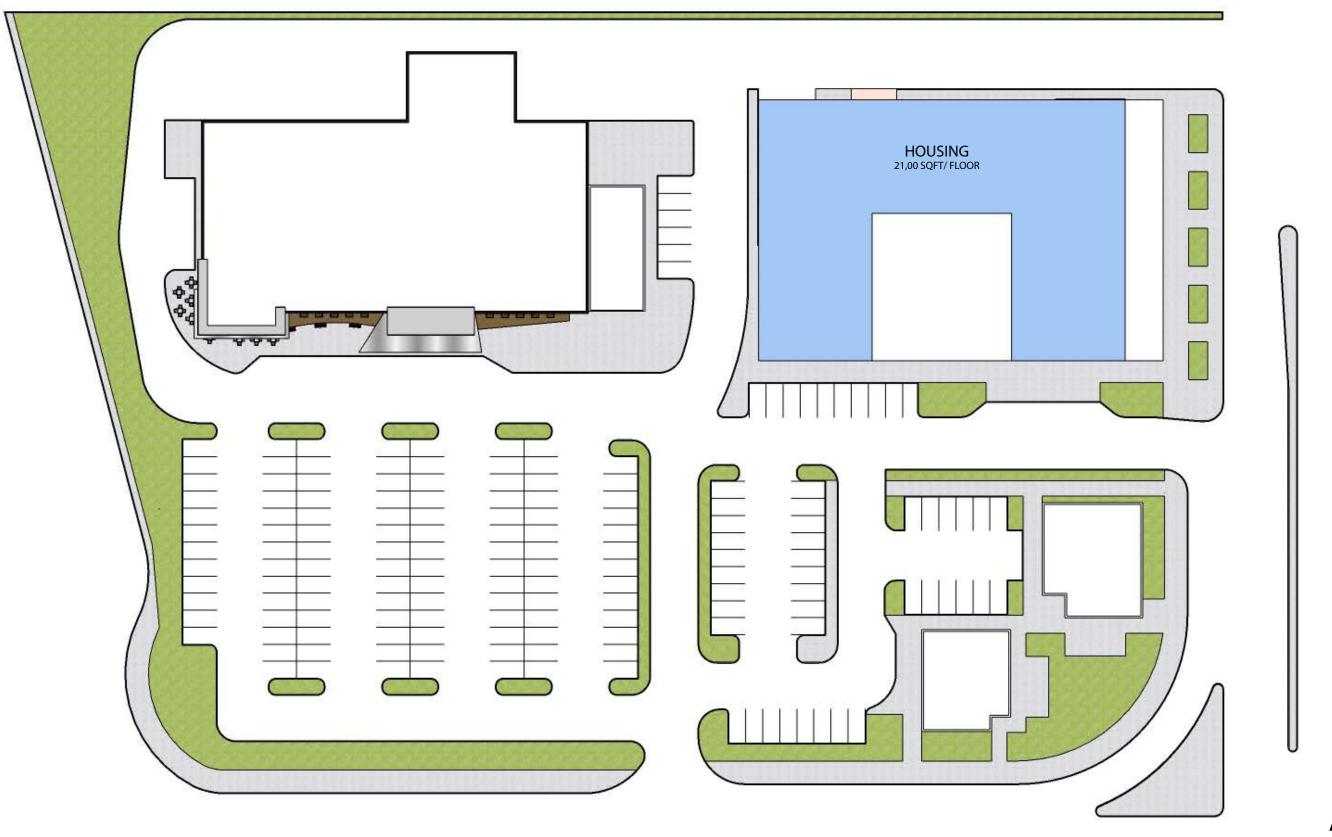




**CLOVER MALL** BLOOMINGTON, MN

RETAIL

20 JULY 2021



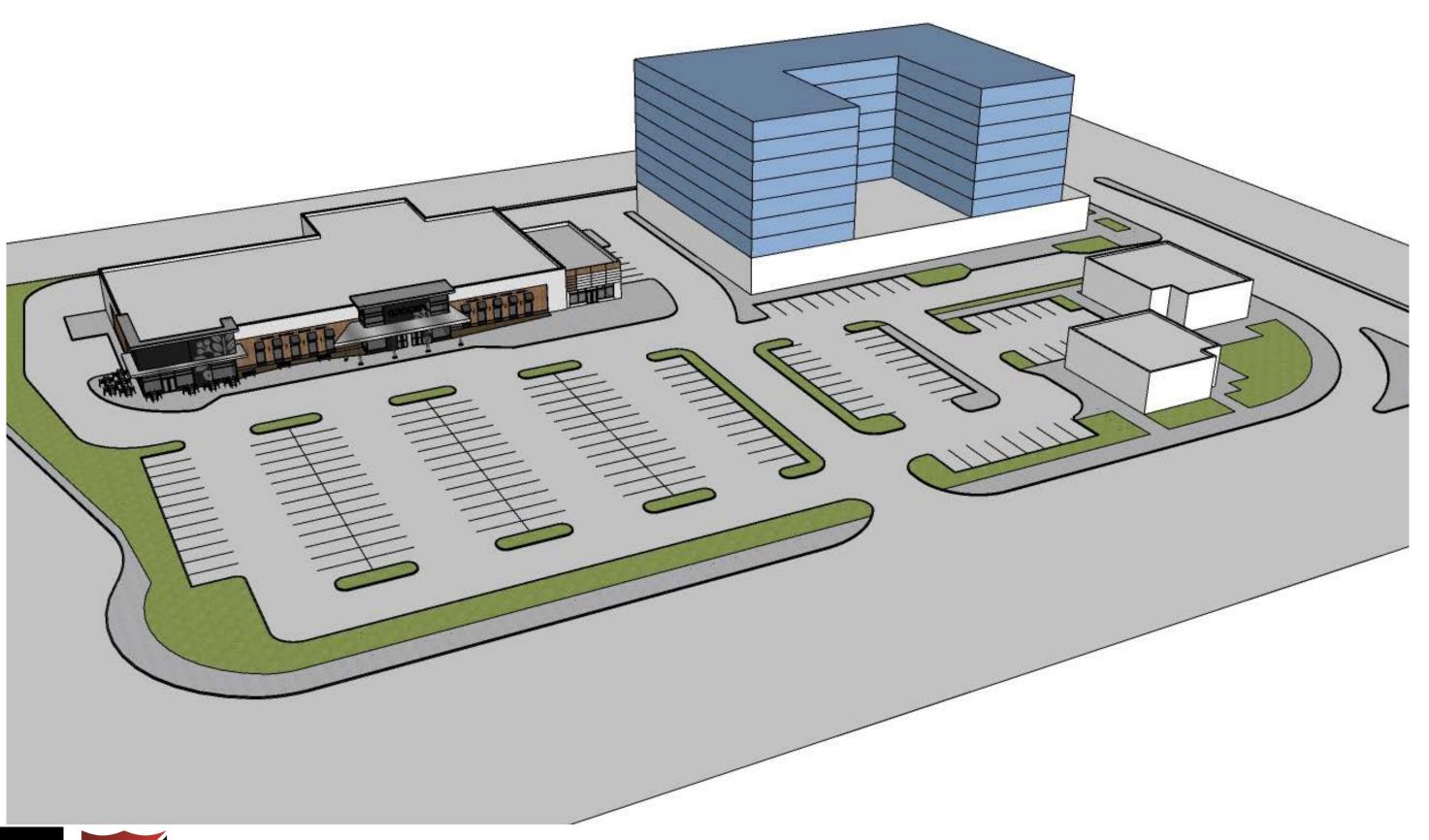


**CLOVER MALL** BLOOMINGTON, MN

HOUSING

20 JULY 2021

2





CLOVER MALL BLOOMINGTON, MN

AERIAL

20 JULY 2021

# **Summary**

B-4 neighborhood commercial FAR = 1

Grocery = 23,000 sqft

Retail / F&B = 14,930 sqft

Housing: 21,000 sqft/floor

7 floors

units per floor = 17

total units = 119



**COVER SHEET** 

# **CLOVER SHOPPING CENTER REDEVELOPMENT**

**SECTION 16, TOWNSHIP 27N, RANGE 24W BLOOMINGTON, MN** 

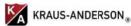
#### PROJECT TEAM:

KIMLEY-HORN AND ASSOCIATES, INC.



PREPARED BY: JASON D. SCRIMSHAW 767 EUSTIS STREET, SUITE 100 ST. PAUL, MN 55114 TELEPHONE (651) 645-4197

ARCHITECT RSP ARCHITECTS 1220 MARSHALL ST NE MINNEAPOLIS, MN 55413 TELEPHONE: (612) 677-7100 CONTACT: WILLIAM WITTROCK, AIA OWNER / DEVELOPER KRAUS ANDERSON DEVELOPMENT



501 S 8TH STREET MINNEAPOLIS, MN 55404 TELEPHONE: (612) 332-7281 CONTACT: TIM MARCO

SURVEYOR SUNDE LAND SURVEYING 9001 EAST BLOOMINGTON FWY # 118 BLOOMINGTON, MN 55420 TELEPHONE: 952-881-2455 CONTACT: LEONARD CARLSON, P.L.S.



VICINITY N.T.S.



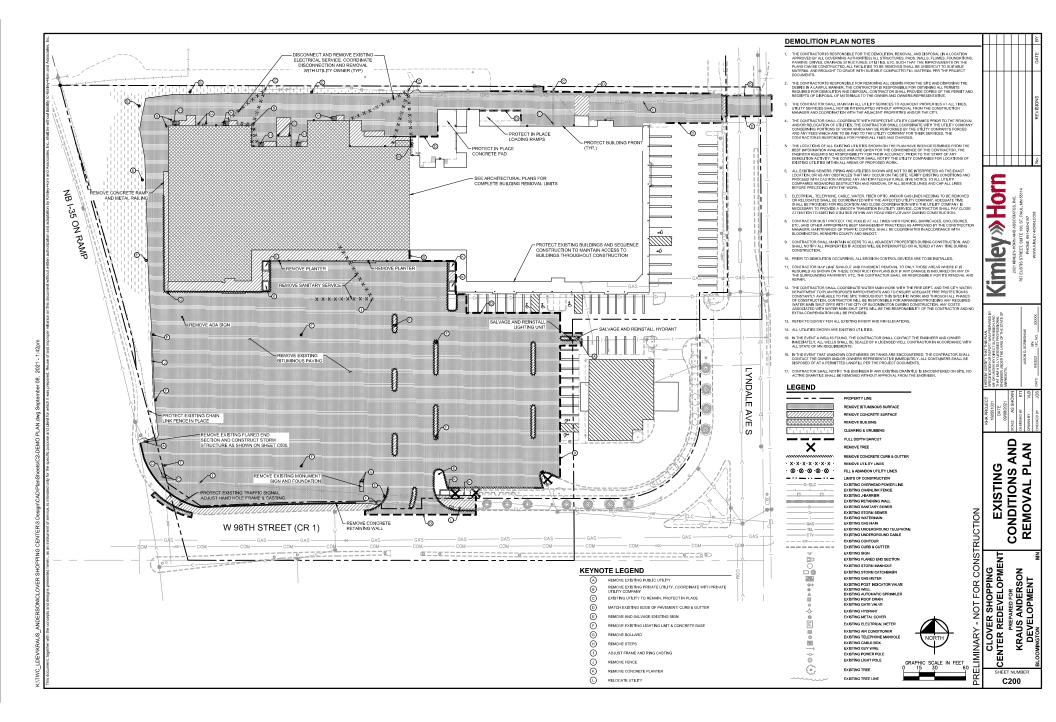
### NOTES:

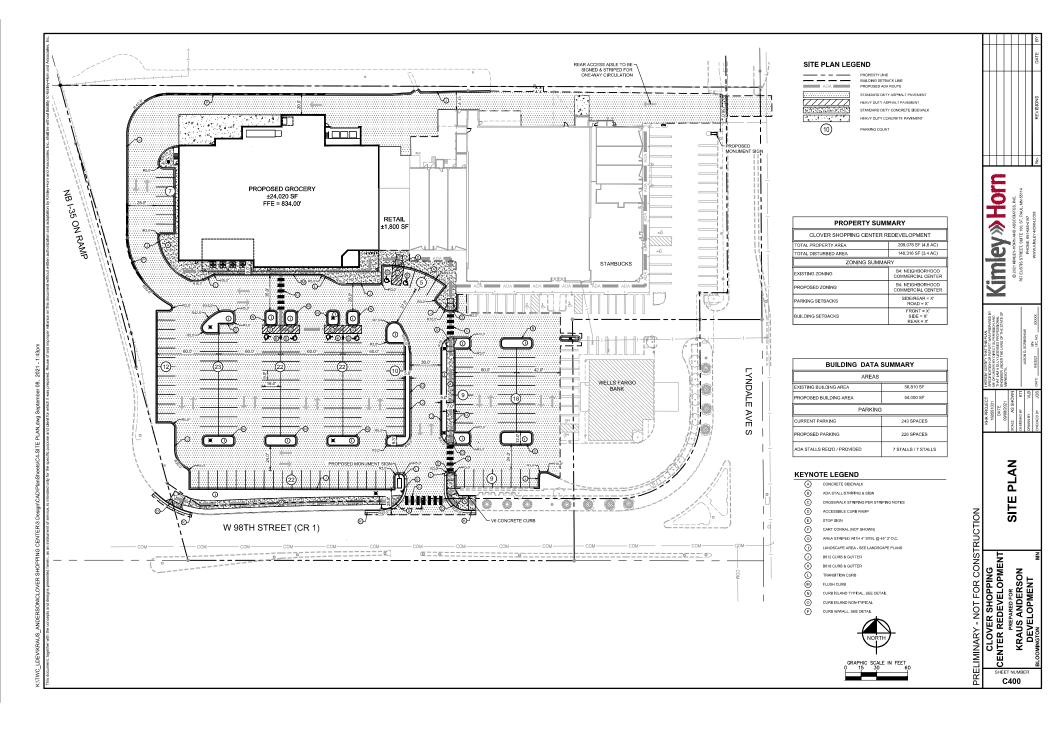
- CONTRACTOR SHALL CONFIRM THAT THE EXISTING CONDITIONS FOR THE SITE MATCH WHAT IS SHOWN ON THE DRAWINGS INCLUDED PRIOR TO CONSTRUCTION.
- WHAT IS SHOWN ON THE DRAWINGS INCLUDED PRIOR TO CONSTRUCTION, IF REPRODUCED, THE SCALES SHOWN ON THESE PLANS ARE BASED ON A ANSI full bleed D (34.00 x 22.00 inches) SHEET.
  ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR LITILITY SERVICES COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICES.
  ALL GENERAL CONTRACTOR WORK TO BE COMPLETED (EARTHWORK, FINAL UTILITIES,
- AND FINAL GRADING) BY THE MILESTONE DATE IN PROJECT DOCUMENTS

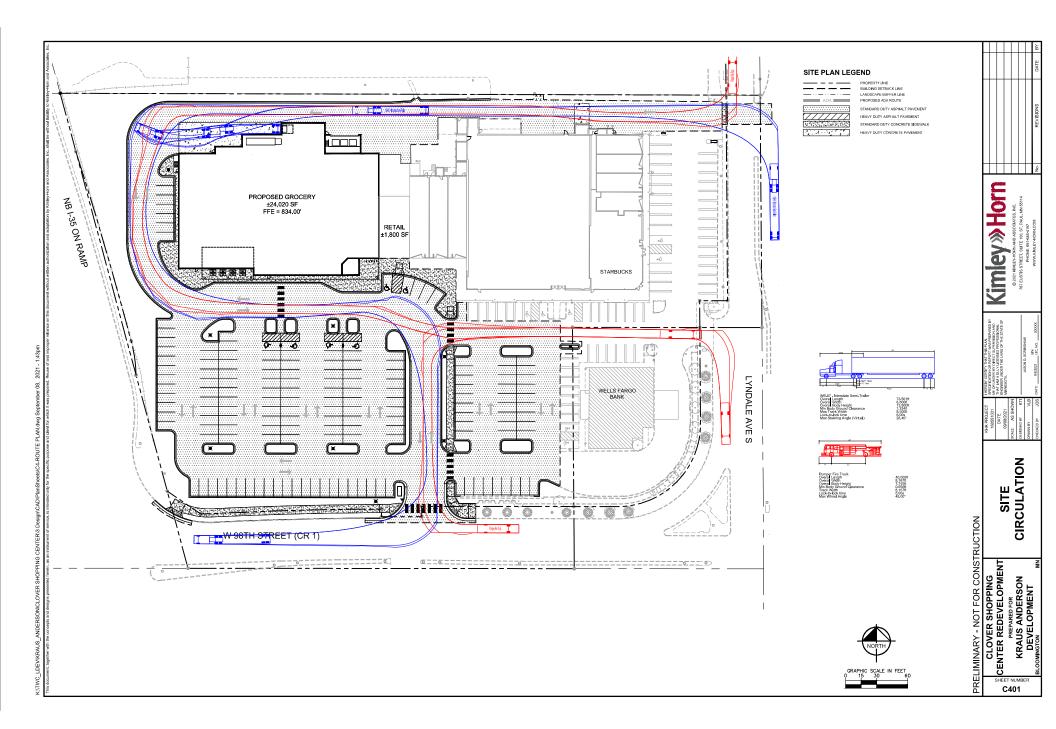
DRAWING INDEX		
SHEET NO.	SHEET TITLE	
C000	COVER SHEET	
C100	GENERAL NOTES	
C200	EXISTING CONDITIONS AND REMOVAL PLAN	
C300	EROSION AND SEDIMENT CONTROL PLAN - PHASE 1	
C301	EROSION AND SEDIMENT CONTROL PLAN - PHASE 2	
C302	EROSION AND SEDIMENT CONTROL DETAILS	
C400	SITE PLAN	
C401	SITE CIRCULATION	
C402	SITE DETAILS	
C500	GRADING & DRAINAGE PLAN	
C501	GRADING & DRAINAGE DETAILS	
C600	UTILITY PLAN	
C601	UTILITY DETAILS	
C602	UTILITY DETAILS	
C603	UTILITY DETAILS	
L100	LANDSCAPE PLAN	
L101	LANDSCAPE DETAILS	

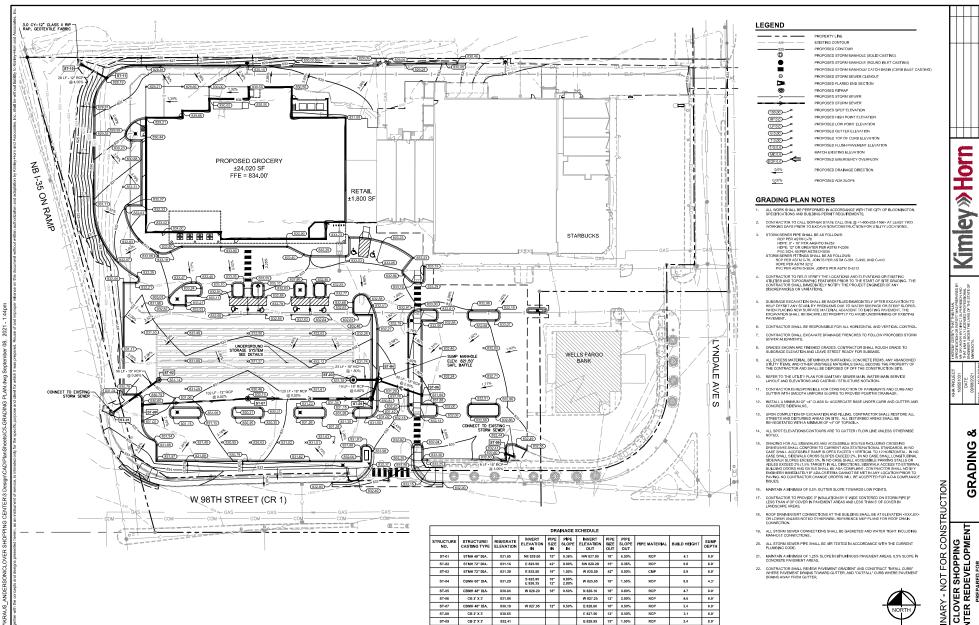
Know what's below. Call before you dig.

PRELIMINARY - NOT FOR CONSTRUCTION CLOVER SHOPPING CENTER REDEVELOPMENT PREPARED FOR
KRAUS ANDERSON
DEVELOPMENT









ST-10

ST-11

FES 15"

824.25

NW 824-12 12" 4-00%

CB 2' X 3' 828.18

Kimley≫H

RAINAGE PLAN



0.0

0.0

CLOVER SHOPPING

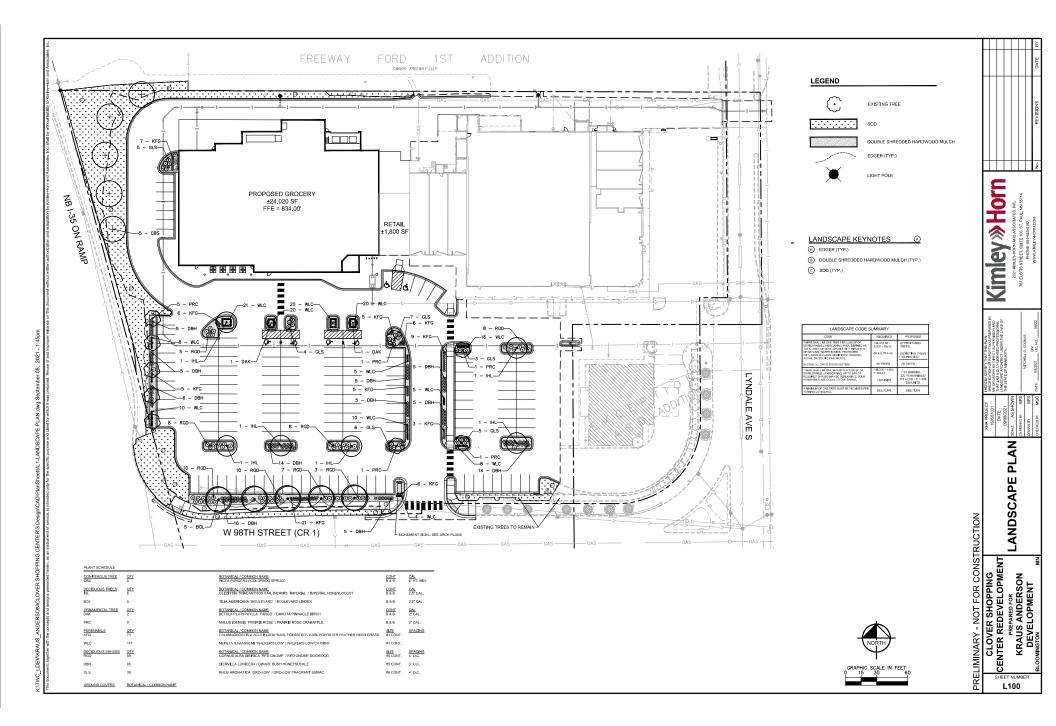
CENTER REDEVELOPMENT

PREPARED FOR

KRAUS ANDERSON

BLOOMINGTON

MIN PRELIMINARY - NOT SHEET NUMBER C500







**CLOVER MALL** BLOOMINGTON, MN

EXTERIOR CONCEPT

08 SEPT 2021

- 1





**CLOVER MALL** BLOOMINGTON, MN

EXTERIOR CONCEPT

08 SEPT 2021

2

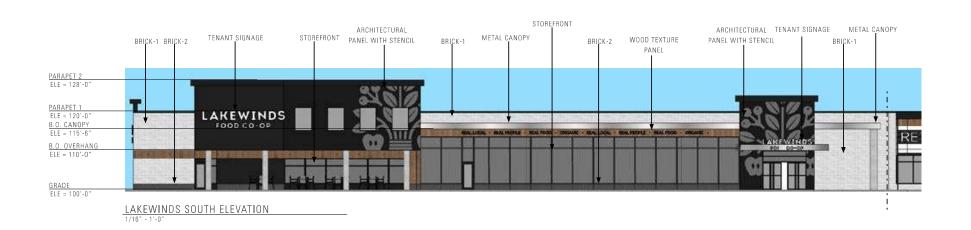




**CLOVER MALL** BLOOMINGTON, MN

EXTERIOR CONCEPT

08 SEPT 2021



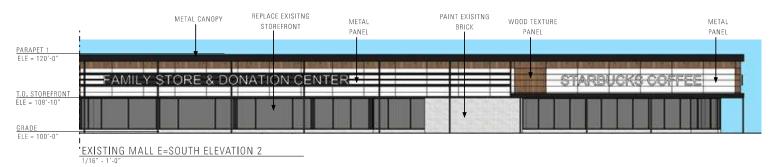




CLOVER MALL BLOOMINGTON, MN

08 SEPT 2021









CLOVER MALL BLOOMINGTON, MN

08 SEPT 2021

# **Clover Center Traffic and Parking Study**

Bloomington, MN

**September 12, 2021** 

#### **Prepared For:**

Brian Hansen Development Coordinator

City of Bloomington 1700 West 98th Street Bloomington, MN 55431



#### **Prepared By:**

Jordan Schwarze, PE, RSP1

Alliant Engineering, Inc. 733 Marquette Ave, Suite 700 Minneapolis, MN 55402



# **Table of Contents**

List of Figures	ii
List of Tables	ii
1.0 Introduction	1
2.0 Existing and Year 2024 No Build Conditions	1
2.1 Study Area Intersections	
2.2 Data Collection	
2.2.1 Roadway/Intersection Characteristics	
2.2.2 Alternative Transportation Modes	
2.2.3 Traffic Volumes	4
2.3 Traffic Operations Analysis	10
3.0 Proposed Redevelopment	13
3.1 Trip Generation	
4.0 Year 2024 Build Conditions	15
4.1 Traffic Operations Analysis	
4.1.1 Traffic Operations Conclusions – Proposed Clover Center	
5.0 Site Plan/Access Review	18
5.1.1 Vehicle Ingress/Egress	18
5.1.2 Internal Traffic Circulation	22
5.1.3 Pedestrian/Bicycle Connectivity	22
5.1.4 Parking Layout/Capacity	
5.1.5 Future Full Redevelopment	25
6.0 Conclusions and Recommendations	27
Appendix A – 98th Street/Lyndale Avenue 2017 Turning Movement Co	ountA
Appendix B – Detailed Operations and Queuing Analysis	В

# **List of Figures**

Figure 1 – Project Location	2
Figure 2 – Study Area Historical Traffic Volumes	
Figure 3 – Directional Distribution	6
Figure 4 – Typical Existing Conditions	8
Figure 5 – Forecast Year 2024 No Build Conditions	9
Figure 6 – Proposed Site Plan	
Figure 7 – Forecast Year 2024 Build Conditions	16
Figure 8 – Collision Diagram: 98th Street @ South Access	20
Figure 9 – Recommended Site Plan Improvements	
Figure 10 – Future Full Redevelopment Site Plan	
Table 1 – Study Area Roadway Characteristics	1
Table 1 – Study Area Roadway Characteristics	
Table 2 – Study Area Intersection Characteristics	
Table 3 – Trip Generation Estimates – Existing Clover Center	
Table 4 – Level of Service Criteria	
Table 5 – Traffic Operations Analysis – Year 2024 No Build Conditions	
Table 6 – Trip Generation Estimates – Clover Center Redevelopment	13
Table 7 – Traffic Operations Analysis – Year 2024 Build Conditions	15
Table 8 – 98th Street / South Access Intersection Crash Analysis Summary	21
Table 9 – Bloomington Zoning Code Parking Requirement	24
Table 10 – Parking Demand Analysis Summary	25



### 1.0 Introduction

Alliant Engineering has completed a traffic and parking study for a proposed redevelopment at the Clover Center located in the northwest quadrant of the 98th Street/Lyndale Avenue intersection in Bloomington, MN (see **Figure 1**). The main objectives of this study are to identify any potential traffic impacts to the adjacent roadway network due to redevelopment generated trips, evaluate the viability of the proposed parking supply, and recommend improvements to address identified issues. The following provides the assumptions, analysis, and study conclusions/recommendations offered for consideration.

## 2.0 Existing and Year 2024 No Build Conditions

The existing and forecast year 2024 no build conditions were reviewed to establish a baseline for identifying any future impacts associated with the proposed redevelopment (assumed to be complete in the year 2023). The evaluation of existing and forecast year 2024 no build conditions includes field observations, data collection, review of historical traffic volumes, estimates of existing and future traffic volumes, and an intersection operations analysis.

#### 2.1 Study Area Intersections

Via discussion with City of Bloomington staff, the following study intersections were identified:

- 98th Street & I-35W Southbound Offramp/Dupont Avenue
- 98th Street & I-35W Northbound Ramps
- 98th Street & South Access (three-quarter access)
- 98th Street & Lyndale Avenue
- Lyndale Avenue & Southeast Access (right-out only access)
- Lyndale Avenue & Northeast Access (full access)

#### 2.2 Data Collection

#### 2.2.1 Roadway/Intersection Characteristics

Field observations were completed to identify roadway and intersection characteristics within the study area (i.e. geometry, posted speed limits, and traffic controls), which are summarized in **Table 1** and **Table 2**.

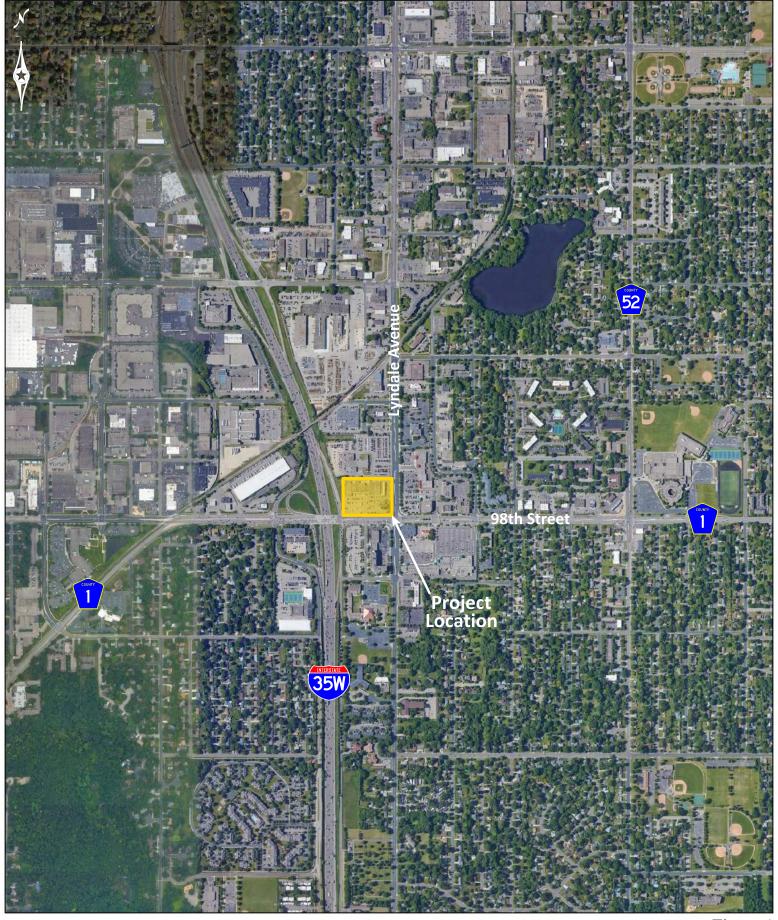
Table 1 – Study Area Roadway Characteristics

Roadway	Cross-Section	Speed Limit <sup>(1)</sup>	Functional Classification
98th Street <sup>(2)</sup>	4-Lane Divided	35 mph	Minor Arterial
Lyndale Avenue	4-Lane Divided	35 mph	Minor Arterial

<sup>(1)</sup> mph=miles per hour

<sup>(2)</sup> The study segment of 98th Street is under the jurisdiction of Hennepin County as State Aid Highway 1 (CSAH 1)





**Clover Center Traffic and Parking Study** 

Figure 1 Project Location



LR

Interpostion	Troffic Control	Lar	ne Designation	ns by Approac	h <sup>(1)</sup>
Intersection	Traffic Control	NB	SB	EB	WB
98th Street/35W SB Offramp	Traffic Signal	L/R	L/T/R <sup>(2)</sup>	T/T/T/R	L/T/T/T
98th Street/35W NB Ramps	Traffic Signal	L/LTR <sup>(2)</sup>	_	L/T/T	T/T/TR
98th Street/South Access	Through/Stop	R	R	L/T/T/TR	T/T/TR
98th Street/Lyndale Avenue	Traffic Signal	L/T/T/R	L/T/T/R <sup>(2)</sup>	L/L/T/T/R <sup>(2)</sup>	L/L/T/T/R <sup>(2)</sup>
Lyndale Avenue/SE Access	Through/Stop	T/T/T	T/T	R	_

Through/Stop

L/T/T/T

T/TR

**Table 2 – Study Area Intersection Characteristics** 

Lyndale Avenue/NE Access

#### 2.2.2 Alternative Transportation Modes

A combination of field observations and online research was completed to document existing alternative transportation modes within the study area. Existing alternative transportation modes include the following:

- The South Bloomington Transit Center, located along the south side of 98th Street opposite the Clover Center, provides access to Metro Transit Bus Routes 18, 465, 535, 539, and 597. These bus routes combine to provide transit service to various parts of Bloomington including the Mall of America, the Burnsville Transit Station, Best Buy headquarters in Richfield, uptown and downtown Minneapolis, the University of Minnesota in Minneapolis, and numerous other transit hubs. Several of these bus routes also have stops along 98th Street and Lyndale Avenue near the Clover Center.
  - o The Bus Rapid Transit (BRT) Metro Orange Line is anticipated to begin service later in the year 2021 along I-35W between Burnsville and Minneapolis. The Orange Line will serve the South Bloomington Transit Center and is expected to replace the existing Metro Transit Bus Route 535.
- Limited bicycle accommodations are currently present near the Clover Center, though bike facilities farther south provide access to trails in the Minnesota River Valley.
- Sidewalks line both sides of 98th Street and Lyndale Avenue within the study area. The sidewalk adjacent to the site from the South Access to the west is narrow curb sidewalk and is deficient and in poor condition. The issue is most significant on the west side of the South Access where the sidewalk narrows and abruptly ends with a poor grade transition, which does not meet current Americans with Disabilities Act (ADA) standards. Sidewalk along Lyndale Avenue between the Southeast and Northeast Accesses is also narrow curb sidewalk in poor condition. Transitions to the driveways are similar to the aforementioned sidewalk along 98th Street at the South Access.

Due to the available surrounding transit connections, non-motorized users may be higher within the study area than in other parts of Bloomington. However, it should be noted that pedestrian and bicycle connections within the study area are deficient and in poor condition.



<sup>(1)</sup> L=Left-Turn, T=Through, R=Right-Turn

<sup>(2)</sup> Channelized Right-Turn

#### 2.2.3 Traffic Volumes

#### **Existing Conditions**

Traffic patterns in the year 2021 have been significantly affected by the response to the ongoing COVID-19 pandemic. Therefore, historical traffic counts served as the basis for estimating typical existing (i.e., pre-pandemic) conditions within the study area. Annual average daily traffic (AADT) volumes, provided by the Minnesota Department of Transportation (MnDOT) via its online *Traffic Mapping Application*, were referenced to understand traffic trends along 98th Street and Lyndale Avenue over a period of approximately 20 years. The study area historical AADT volumes, shown in **Figure 2**, exhibit a long-term declining traffic growth trend of approximately 0.5 percent annually.

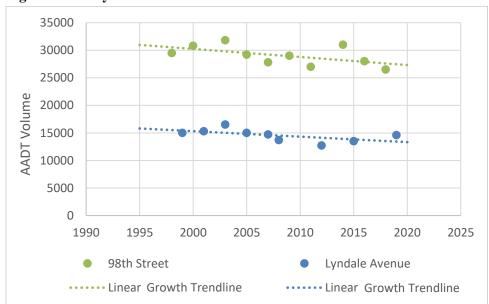


Figure 2 – Study Area Historical Traffic Volumes

Considering a long-term declining traffic growth trend within the study area, a year 2017 turning movement count collected by Alliant Engineering at the 98th Street/Lyndale Avenue intersection (presented in **Appendix A**) was selected to provide a conservative representation of typical existing conditions. It should be noted that the following a.m. and p.m. peak hours were observed during the year 2017 turning movement count at the 98th Street/Lyndale Avenue intersection:

• AM Peak Hour: 7:30-8:30 a.m.

• PM Peak Hour: 4:30-5:30 p.m.

These a.m. and p.m. peak hours at the 98th Street/Lyndale Avenue intersection served as the basis for the modeling of typical existing conditions within the study area. The year 2017 peak hour data at the 98th Street/Lyndale Avenue intersection was then supplemented by peak hour data from historical year 2007 MnDOT turning movement counts at the I-35W ramp terminal intersections with 98th Street. In addition to referencing historical traffic volumes, peak period turning movement counts were collected at the three existing Clover Center site access locations during the week of August 9, 2021. Given existing retail vacancies, the collected driveway counts do not provide an appropriate representation of the maximum trip generation potential for the current Clover Center configuration. However, the collected driveway counts do provide an appropriate measure of the origin and destination directionality of Clover Center trips. This observed trip directionality was combined with the historical traffic volume data to derive the Clover Center trip directional distribution shown in **Figure 3**.

To understand the trip generation potential of the current Clover Center under a full occupancy scenario, shopping center and bank trip generation rates were referenced from the *Institute of Transportation Engineers Trip Generation Manual, 10th Edition (ITE TGM)*. The *ITE TGM* provides peak hour and daily trip generation rates based on studies of various land uses. As shown in **Table 3**, the Clover Center could be expected to generate approximately 225 a.m. peak hour trips, 458 p.m. peak hour trips, and 4,654 daily trips under a full occupancy scenario. While the potential exists for motorists to visit more than one business onsite, a multi-use trip reduction was not applied in order to provide a conservative estimate of the existing Clover Center trip generation potential.

Table 3 – Trip Generation Estimates – Existing Clover Center

	Units				AM Peak Hour Trips <sup>(1)</sup>				PM Peak Hour Trips <sup>(1)</sup>			
Land Use (ITE Code)		Size	Trips In	Trips Out	Total Trips	Trips In	Trips Out	Total Trips	Daily Trips			
Existing Clover Center Trips - Full Occupancy Scenario												
Shopping Center (820)	Square Feet	58,095 <sup>(2)</sup>	112	69	181	175	189	364	4,156			
Drive-In Bank (912)	Square Feet	4,588	25	19	44	47	47	94	498			
Total Trips			137	88	225	222	236	458	4,654			

Source: Institute of Transportation Engineers Trip Generation Manual, 10th Edition

<sup>(1)</sup> Peak hour of the adjacent roadway network

<sup>(2)</sup> Square Feet of Leasable Floor Area



**Clover Center Traffic and Parking Study** 

Figure 3
Directional Distribution



It should be noted that the estimated full occupancy a.m. peak hour trips are comparable to the a.m. peak hour trips observed during the August 2021 data collection period. The majority of the observed a.m. peak hour trips were generated by an existing coffee shop onsite. With most retail stores being closed during the a.m. peak hour of the adjacent roadway network, additional occupied retail space would not be expected to have a significant impact on the a.m. peak hour trip generation of the current Clover Center. However, it should also be noted that the estimated full occupancy p.m. peak hour trips are approximately 50 percent higher than the p.m. peak hour trips observed during the August 2021 data collection period. With most, if not all, retail stores open during the p.m. peak hour of the adjacent roadway network, additional occupied retail space would be expected to have a significant impact on the p.m. peak hour trip generation of the current Clover Center.

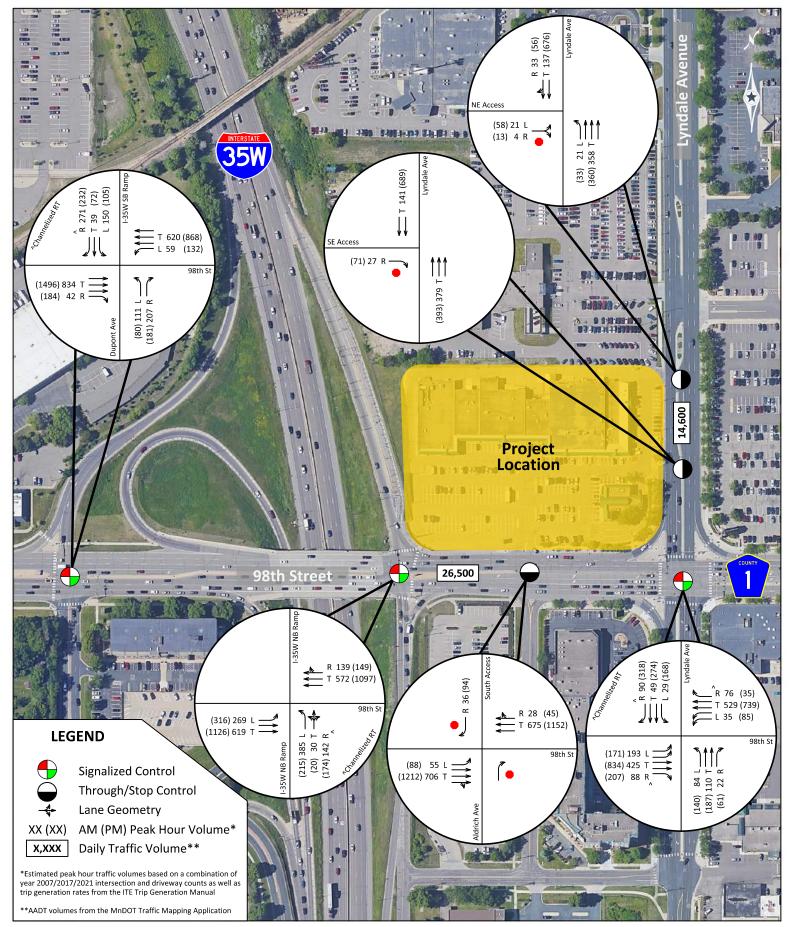
The historical intersection turning movement counts and the Clover Center full occupancy trip generation estimates/distribution/assignment were merged to create the estimated typical existing conditions within the study area shown in **Figure 4**.

#### **Year 2024 No Build Conditions**

While a definitive timeline for the proposed redevelopment of the Clover Center has not been established, a year 2023 completion was assumed for the purpose of this study. Therefore, year 2024 conditions (i.e., one year after completion of the proposed redevelopment) were evaluated to estimate the potential future impact of Clover Center traffic. Prior to evaluating the proposed redevelopment, year 2024 no build conditions were forecasted and analyzed.

While the previously noted review of historical AADT volumes within the study area revealed a long-term declining traffic growth trend of approximately 0.5 percent annually, the *City of Bloomington 2040 Comprehensive Plan* forecasts modest traffic growth. Therefore, an annual positive growth rate of 0.5 percent was applied to the estimated typical existing traffic volumes to forecast the year 2024 no build conditions shown in **Figure 5**. It should be noted that the forecast year 2024 no build conditions assume no change to intersection geometry, traffic control, or signal timing, and do not include any potential increase in trips generated by the proposed Clover Center redevelopment.

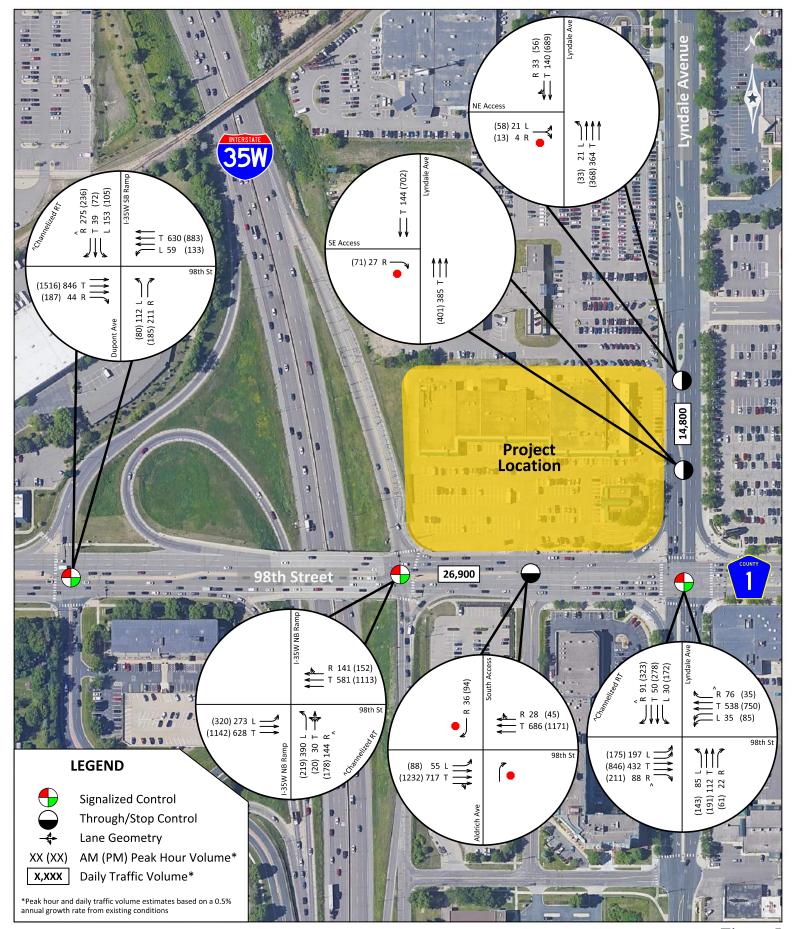
52



**Clover Center Traffic and Parking Study** 



Figure 4
Typical Existing Conditions



**Clover Center Traffic and Parking Study** 

Figure 5
Forecast Year 2024 No Build Conditions



#### 2.3 Traffic Operations Analysis

A year 2024 no build conditions traffic operations analysis was completed using Synchro/SimTraffic software to establish a baseline condition to which build condition traffic operations could be compared. It should be noted that modeling previously completed by Alliant Engineering for a prior City of Bloomington project along 98th Street was utilized for this project. Traffic signals along 98th Street from Lyndale Avenue through the I-35W ramp terminal intersections currently operate coordinated 120-second and 130-second cycles during the a.m. and p.m. peak periods, respectively. These signal timing parameters were utilized in both the year 2024 no build and build conditions models.

Operations analysis results identify a Level of Service (LOS), which indicates the quality of traffic flow through an intersection. Intersections are given a ranking from LOS A through LOS F. LOS A indicates the best traffic operation, with vehicles experiencing minimal delays. LOS F indicates an intersection where demand exceeds capacity, or a breakdown of traffic flow. The LOS D/E boundary for overall operations is often used as the indicator of congestion in an urban area. For through/stop intersections, a key measure of operational effectiveness is the side-street LOS. Long delays and poor LOS can occur on side-street approaches even if the overall intersection is functioning well, making side-street LOS a valuable design criterion. The LOS results are based on average delay per vehicle, which correspond to the delay threshold values presented in **Table 4**.

Table 4 - Level of Service Criteria

			Delay per Vel	nicle (seconds)
	Level of Service	Description	Signalized	Unsignalized
	Level of Service	Description	Intersection	Intersection
-		Free Flow: Low volumes and no delays.	0 - 10	0 - 10
E		Stable Flow: Speeds restricted by travel conditions, minor delays.	> 10 - 20	> 10 - 15
C		Stable Flow: Speeds and maneuverability closely controlled due to higher volumes.	> 20 - 35	> 15 - 25
C		<b>Stable Flow:</b> Speeds considerably affected by change in operating conditions. High density traffic restricts maneuverability, volume near capacity.	> 35 - 55	> 25 - 35
E		Unstable Flow: Low speeds, considerable delay, volume at or slightly over capacity.	> 55 - 80	> 35 - 50
F		<b>Forced Flow:</b> Very low speeds, volume exceed capacity, long delays with stop and go traffic.	> 80	> 50

Source: Highway Capacity Manual, 6th Edition, Transportation Research Board, Exhibits 19-8, 20-2, 21-8, 22-8.

After LOS, the second component of the traffic operations analysis is a study of vehicular queuing, or the lineup of vehicles waiting to pass through an intersection. An intersection can operate with an acceptable LOS, but if queues from the intersection block entrances to turn lanes or adjacent driveways, unsafe operating conditions could result. The 95th percentile queue, or the length of queue with only a five percent probability of being exceeded during an analysis period, is considered the standard for design purposes.

A summary of the year 2024 no build conditions traffic operations analysis is presented in **Table 5**, while the detailed operations and queuing analysis results are presented in **Appendix B**. Results of the traffic operations analysis indicate that all study intersections are expected operate at overall LOS C or better during the a.m. and p.m. peak hours under forecast year 2024 no build conditions.

Table 5 – Traffic Operations Analysis – Year 2024 No Build Conditions

Intersection	AM	Peak Hour	PM Peak Hour		
intersection	LOS	Delay (s)	LOS	Delay (s)	
98th Street & 35W SB Offramp	B / C	14.1 / 23.6	B / C	18.5 / 29.0	
98th Street & 35W NB Ramps	C / D	20.3 / 39.4	B / D	14.6 / 38.0	
98th Street & South Access	A / A	2.9 / 6.4	A / B	4.8 / 13.0	
98th Street & Lyndale Avenue	B / D	19.0 / 41.7	C / D	26.2 / 45.0	
Lyndale Avenue & Southeast Access	A / A	1.4 / 2.6	A / B	2.2 / 11.1	
Lyndale Avenue & Northeast Access	A / A	0.6 / 6.4	A / B	1.4 / 14.1	

LOS Results: Overall Intersection / Worst Approach

Delay Results: Overall Intersection / Worst Approach

Key delay/queuing observations from the year 2024 no build traffic operations analysis follow:

#### 98th Street/I-35W Southbound Offramp Intersection

- Operates at overall LOS B during the a.m. and p.m. peak hours.
  - o Moderate queuing (95th percentile queue > 500 feet) was observed in the eastbound through lanes in the p.m. peak hour traffic simulations.

#### 98th Street/I-35W Northbound Ramps Intersection

- Operates at overall LOS C and LOS B during the a.m. and p.m. peak hours, respectively.
  - O Moderate queuing (95th percentile queue  $\approx$  315 feet) was observed in the eastbound left-turn lane in the a.m. peak hour traffic simulations. Moderate queuing (95th percentile queue  $\approx$  320 feet) was also observed in eastbound left-turn lane in the p.m. peak hour traffic simulations.
  - $\circ$  Moderate queuing (95th percentile queue  $\approx$  310 feet) was observed on the northbound approach in the a.m. peak hour traffic simulations. Moderate queuing (95th percentile queue  $\approx$  255 feet) was also observed on the northbound approach in the p.m. peak hour traffic simulations.
  - O Moderate queuing (95th percentile queue  $\approx 255$  feet) was observed on the westbound approach in the a.m. peak hour traffic simulations. Moderate queuing (95th percentile queue  $\approx 270$  feet) was also observed on the westbound approach in the p.m. peak hour traffic simulations.
    - Field observations revealed that westbound approach queues occasionally extended to or through the 98th Street/South Access intersection, particularly during the p.m. peak hour. However, these occasional obstructions were of short duration and produced limited operational impact on the three-quarter 98th Street/South Access intersection.

#### 98th Street/South Access Intersection

- Operates at overall LOS A during the a.m. and p.m. peak hours.
  - Currently, approximately 100 feet of full-width storage is provided in the eastbound left-turn lane. At approximately 105 feet, 95th percentile queuing was observed to slightly exceed the full-width storage of the eastbound left-turn lane in the p.m. peak hour traffic simulations. However, the last vehicle at this queue length would still be expected to be accommodated within the width of the existing left-turn lane taper.
  - o Four hours of peak period field observations at the 98th Street/South Access intersection revealed only one motorist performing a prohibited southbound left-turn maneuver at this three-quarter access. While significant mainline traffic volumes make the prohibited southbound left-turn maneuver difficult to perform during peak periods, there is little to physically prevent motorists from performing this prohibited maneuver during off-peak periods.

#### 98th Street/Lyndale Avenue Intersection

- Operates at overall LOS B and LOS C during the a.m. and p.m. peak hours, respectively.
  - Currently, approximately 95 feet of full-width storage is provided in the northbound left-turn lane. At approximately 160 feet, 95th percentile queuing was observed to exceed the full-width storage of the northbound left-turn lane in the p.m. peak hour traffic simulations. At this queue length, the last left-turning vehicles would be expected to encroach upon the adjacent northbound through lane. However, it should be noted that the duration of this encroachment is short, and that northbound left-turn queues routinely clear the intersection during the allotted protected green arrow time.
  - Currently, approximately 190 feet of full-width storage is provided in the southbound left-turn lane. At approximately 235 feet, 95th percentile queuing was observed to exceed the full-width storage of the southbound left-turn lane in the p.m. peak hour traffic simulations. At this queue length, the last left-turning vehicle would be expected to encroach upon the adjacent southbound through lane. However, it should be noted that the duration of this encroachment is short, and that southbound left-turn queues routinely clear the intersection during the allotted protected green arrow time.

#### **Lyndale Avenue/Southeast Access Intersection**

- Operates at overall LOS A during the a.m. and p.m. peak hours.
  - o No significant delay or queuing issues were observed in the traffic simulations.

#### **Lyndale Avenue/Northeast Access Intersection**

- Operates at overall LOS A during the a.m. and p.m. peak hours.
  - o No significant delay or queuing issues were observed in the traffic simulations.
  - o It should be noted that the Northeast Access was modeled with one inbound lane and two outbound lanes (i.e., left-turn lane and a short right-turn lane). The existing driveway has the width to accommodate three lanes, though queuing distance is limited.



# 3.0 Proposed Redevelopment

Currently, the Clover Center site consists of the following land uses:

- 58,095-square-foot strip retail shopping center
- Adjacent 4,588-square-foot bank with three drive-through lanes

The proposed redevelopment, shown in **Figure 6**, is initially anticipated to displace 28,232 square feet of existing retail space on the west side of the Clover Center site. The demolished structure is anticipated to be replaced by a 22,000-square-foot grocery store and 1,800 square feet of new retail space. Thus, the proposed Clover Center site is expected to consist of the following land uses:

- 31,663-square-foot strip retail shopping center
- 22,000-square-foot grocery store
- Adjacent 4,588-square-foot bank with three drive-through lanes

Access to the Clover Center site is expected to remain nearly unchanged:

- South Access Located along 98th Street approximately 300 feet west of Lyndale Avenue (three-quarter access). The South Access may move east by approximately 10 feet.
- Southeast Access Located along Lyndale Avenue approximately 200 feet north of 98th Street (right-out only access)
- Northeast Access Located along Lyndale Avenue approximately 400 feet north of 98th Street (full access)

#### 3.1 Trip Generation

To understand the trip generation potential of the redeveloped Clover Center, trip generation estimates were completed for the weekday a.m. and p.m. peak hours as well as on a daily basis by utilizing the ITE TGM. Results of the trip generation estimates shown in **Table 6** indicate the proposed redevelopment is expected to generate approximately 296 a.m. peak hour trips, 578 p.m. peak hour trips, and 6,020 daily trips.

Table 6 - Trip Generation Estimates - Clover Center Redevelopment

			AM P	eak Hour T	rips <sup>(1)</sup>	PM P	eak Hour T	rips <sup>(1)</sup>	Daily
Land Use (ITE Code)	Units	Size	Trips In	Trips Out	Total Trips	Trips In	Trips Out	Total Trips	Trips
	Redevelop	ed Clover C	enter Trip	s - Full Oc	cupancy S	cenario			<del>-</del>
Shopping Center (820)	Square Feet	31,663 <sup>(2)</sup>	104	64	168	111	121	232	2,750
Supermarket (850)	Square Feet	22,000	50	34	84	128	124	252	2,772
Drive-In Bank (912)	Square Feet	4,588	25	19	44	47	47	94	498
	179	117	296	286	292	578	6,020		
Net New Trips			42	29	71	64	56	120	1,366

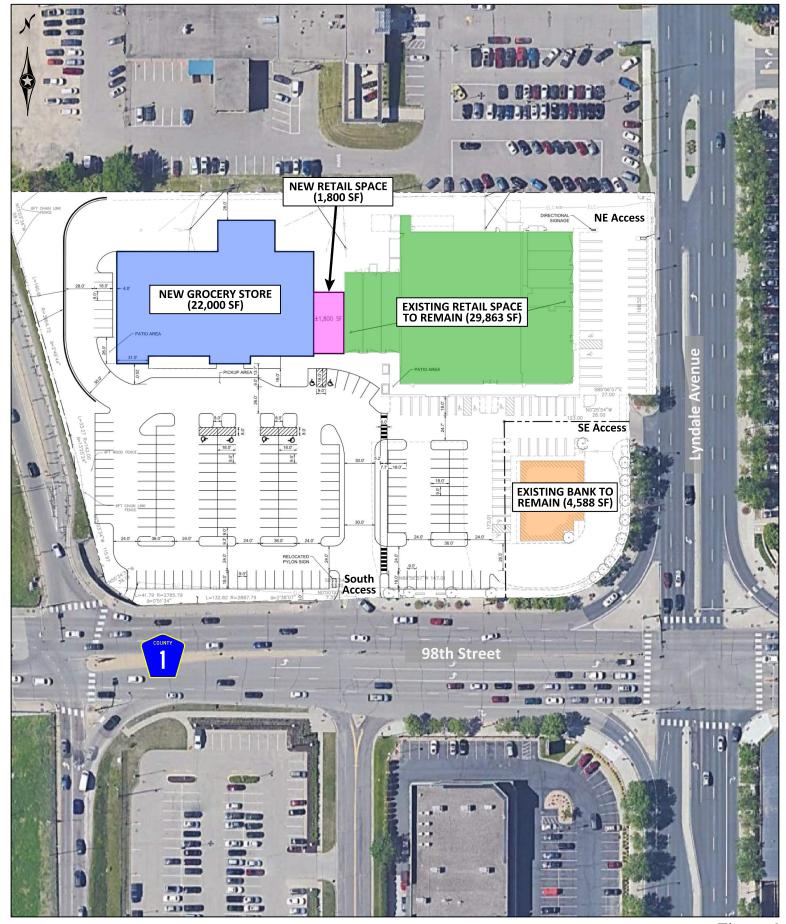
Source: Institute of Transportation Engineers Trip Generation Manual, 10th Edition

<sup>(2)</sup> Square Feet of Leasable Floor Area



58

<sup>(1)</sup> Peak hour of the adjacent roadway network



**Clover Center Traffic and Parking Study** 

Figure 6 Proposed Site Plan



Considering the estimated trip generation of the current Clover Center under a full occupancy scenario, the redeveloped Clover Center is anticipated to generate a net new trip increase of approximately 71 a.m. peak hour trips, 120 p.m. peak hour trips, and 1,366 daily trips. Similar to existing conditions, a multi-use trip reduction was not applied in order to provide a conservative estimate of the proposed Clover Center trip generation potential. With the majority of observed a.m. peak hour trips generated by the existing coffee shop onsite, the displacement of approximately half of the current retail space is expected to have a limited impact on the number of a.m. peak hour trips currently generated by the Clover Center. Limited seasonal variability would be expected in trips generated by the proposed Clover Center. While retail centers typically exhibit a late-year holiday shopping boost, current and anticipated future retail leasers may not necessarily be of the type to receive a significant holiday shopping boost.

The distribution of proposed Clover Center trips was assumed to follow the distribution of trips to/from the existing Clover Center as shown previously in **Figure 3**. These trip distribution percentages were applied to the estimated proposed redevelopment generated trips in the analysis of forecast year 2024 build conditions. The forecast year 2024 build conditions, a combination of general background traffic and trips generated by the proposed Clover Center, are shown in **Figure 7**.

#### 4.0 Year 2024 Build Conditions

To determine potential traffic impacts associated with the proposed Clover Center, forecast future year 2024 build conditions (i.e., one year after completion of the proposed redevelopment) were evaluated using Synchro/SimTraffic software.

#### 4.1 Traffic Operations Analysis

A summary of the year 2024 build conditions traffic operations analysis is presented in **Table 7**, while the detailed operations and queuing analysis results are presented in **Appendix B**. Results of the traffic operations analysis indicate that all study intersections are expected to continue operating at overall LOS C or better during the a.m. and p.m. peak hours under forecast year 2024 build conditions.

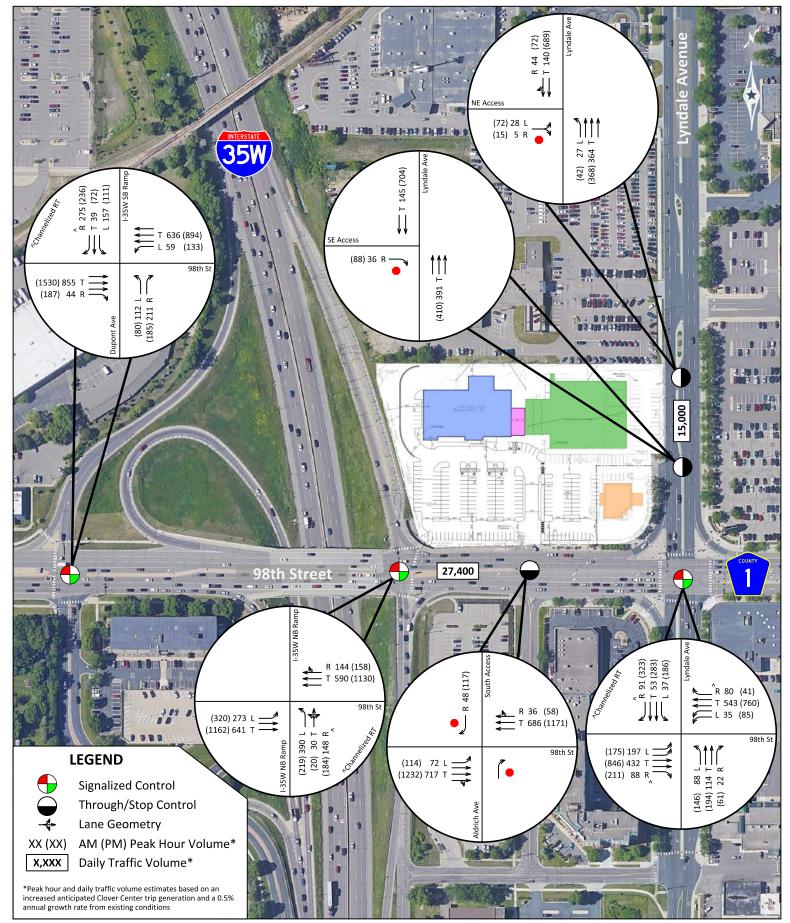
Table 7 – Traffic Operations Analysis – Year 2024 Build Conditions

Intersection	AM	Peak Hour	PM Peak Hour		
intersection	LOS	Delay (s)	LOS	Delay (s)	
98th Street & 35W SB Offramp	B / C	14.3 / 24.5	B / C	18.5 / 29.0	
98th Street & 35W NB Ramps	C / D	20.3 / 39.4	B / D	15.0 / 38.0	
98th Street & South Access	A / A	2.9 / 6.4	A / C	5.5 / 18.2	
98th Street & Lyndale Avenue	B / D	19.7 / 42.9	C / D	27.3 / 45.7	
Lyndale Avenue & Southeast Access	A / A	1.5 / 2.7	A / B	2.2 / 11.1	
Lyndale Avenue & Northeast Access	A / A	0.7 / 6.4	A / C	2.1 / 18.2	

LOS Results: Overall Intersection / Worst Approach

Delay Results: Overall Intersection / Worst Approach





**Clover Center Traffic and Parking Study** 

Figure 7
Forecast Year 2024 Build Conditions



Key delay/queuing observations from the year 2024 build traffic operations analysis follow:

#### 98th Street/I-35W Southbound Offramp Intersection

- Operates at overall LOS B during the a.m. and p.m. peak hours.
  - o Negligible operational differences observed from year 2024 no build conditions.

#### 98th Street/I-35W Northbound Ramps Intersection

- Operates at overall LOS C and LOS B during the a.m. and p.m. peak hours, respectively.
  - o Negligible operational differences observed from year 2024 no build conditions.

#### 98th Street/South Access Intersection

- Operates at overall LOS A during the a.m. and p.m. peak hours.
  - o A slight increase in eastbound left-turn lane queuing (95th percentile queue ≈ 110 feet) was observed in the p.m. peak hour traffic simulations. The last vehicle at this queue length would still be expected to be accommodated within the width of the existing left-turn lane taper. However, as the Clover Center South Access is reconstructed under the proposed redevelopment, maximizing the length of the full-width eastbound left-turn lane should be considered for additional ingress vehicle storage.

#### 98th Street/Lyndale Avenue Intersection

- Operates at overall LOS B and LOS C during the a.m. and p.m. peak hours, respectively.
  - o Negligible operational differences observed from year 2024 no build conditions.

#### **Lyndale Avenue/Southeast Access Intersection**

- Operates at overall LOS A during the a.m. and p.m. peak hours.
  - o Negligible operational differences observed from year 2024 no build conditions.

#### **Lyndale Avenue/Northeast Access Intersection**

- Operates at overall LOS A during the a.m. and p.m. peak hours.
  - o Negligible operational differences observed from year 2024 no build conditions.

#### 4.1.1 Traffic Operations Conclusions - Proposed Clover Center

Generally, the proposed Clover Center redevelopment is expected to have minimal impact on study area traffic operations. However, as the Clover Center South Access is reconstructed under the proposed redevelopment, maximizing the length of the full-width eastbound left-turn lane should be considered for additional ingress vehicle storage.

## 5.0 Site Plan/Access Review

A review of the proposed site plan was completed to identify any issues and recommended potential improvements regarding vehicle ingress/egress, internal traffic circulation, pedestrian/bicycle connectivity, and parking layout/capacity. The following assessment is offered for consideration:

#### 5.1.1 Vehicle Ingress/Egress

As noted previously, access to the Clover Center site is expected to remain nearly unchanged under the proposed redevelopment:

- South Access Three-quarter access located along 98th Street
  - According to the proposed site plan, the South Access may move east by approximately 10 feet.
- Southeast Access Right-out only access located along Lyndale Avenue
- Northeast Access Full access located along Lyndale Avenue

Several recommendations related to vehicle ingress/egress are offered for consideration:

- Continue to utilize proper signing and pavement markings to enforce vehicle movement restrictions at the three-quarter South Access and right-out only Southeast Access.
- At the Northeast Access, sign for two outbound lanes (i.e., left-turn and right-turn lanes).
   While potential queuing distance is limited, such signing would indicate that two outbound motorists are allowed to align themselves side-by-side while exiting the Clover Center at the Northeast Access.
- At the South Access:
  - o Maximize the length of the full-width eastbound left-turn lane for additional ingress vehicle storage.
  - On the southbound approach to 98th Street, install a channelizing raised median to physically guide motorists into making an outbound right-turn maneuver.
  - o Extend or adjust the 98th Street raised medians as appropriate to minimize the potential for prohibited outbound (i.e., southbound) left-turn maneuvers from the Clover Center.

#### Safety Considerations at the 98th Street/South Access Intersection

Converting the 98th Street/South Access intersection to a right-in/right-out access has previously been considered at a high level. However, the 98th Street/South Access intersection is expected to perform acceptably from a traffic operations perspective under forecast year 2024 build conditions. In addition to the evaluated traffic operations, a detailed crash analysis was also performed at the 98th Street/South Access intersection to ensure no significant crash issues are present. Historical crash data at the 98th Street/South Access intersection for the ten-year period from 2011 through 2020 was obtained from the Minnesota Crash Mapping Analysis Tool (MnCMAT) and the City of Bloomington. Based on available crash data, 10 crashes were reported at the 98th Street/South Access intersection over the analysis period. It should be noted that seven (7) of 10 total crashes at the 98th Street/South Access intersection involved an eastbound left-turning vehicle colliding with a westbound through vehicle. A detailed collision diagram for the 98th Street/South Access intersection highlighting crash type and severity is illustrated in **Figure 8**.

#### Crash Rate

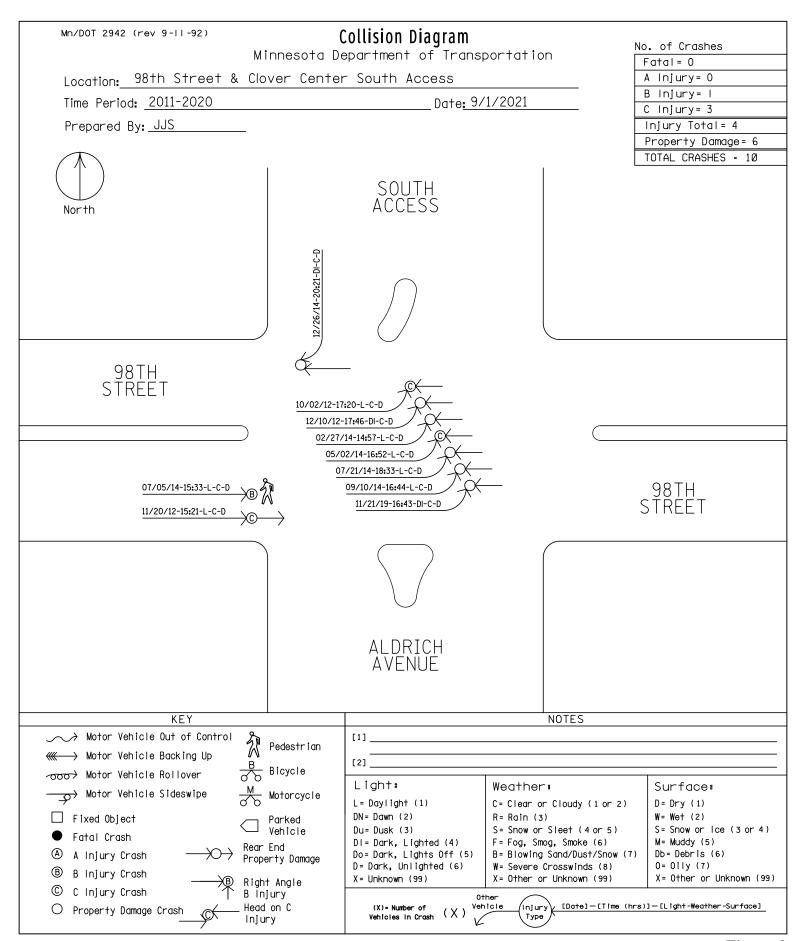
History has proven that crashes are a function of exposure. Roadways with higher traffic volumes experience more crashes than similar roadways with lower volumes. Rather than simply documenting the number of crashes that occur at an intersection, the crash rate must be considered. Crash rates normalize different locations with varying traffic volumes, providing a useful tool in comparing the locations with respect to safety. Actual crash rates at specific locations can also be compared to average or typical values for an intersection type. Intersection crash rates are defined by the number of crashes occurring per million entering vehicles (MEV).

Crash occurrence is somewhat random by nature. Identifying every intersection with a crash rate above the average value in an analysis could produce a large amount of data that may not be statistically relevant with respect to safety deficiencies. The critical crash rate identifies locations that have a crash rate higher than similar facilities by a statistically significant amount. The critical crash rate is calculated by adjusting the systemwide average based on the amount of exposure and a statistical constant indicating level of confidence<sup>1</sup>. At locations where the observed crash rate exceeds the critical crash rate, it is 99.5 percent certain that an intersection design deficiency exists, or there are hazardous characteristics present at the location. Additionally, the critical index is the ratio of the observed crash rate to the critical crash rate. A critical index exceeding 1.00 indicates a potential safety concern. A critical index of 1.00 or less indicates performance within expectations without deviation from statewide trends. **Table 8** summarizes the observed crash rates for the 98th Street/South Access intersection compared to the statewide averages for similar urban through/stop intersections.

<sup>&</sup>lt;sup>1</sup> MnDOT Traffic Safety Fundamentals Handbook, August 2015.



\_



**Clover Center Traffic and Parking Study** 



Figure 8
Collision Diagram
98th Street @ South Access

Table 8 – 98th Street / South Access Intersection Crash Analysis Summary

Intersection	Traffic Control	Total Crashes <sup>1</sup>	Total Entering Volume <sup>2</sup>	Crash Rate per MEV	State Average Crash Rate <sup>3</sup>	Crash Critical Rate <sup>4, 5</sup>	Crash Rate Critical Index	Crash Severity Rate <sup>6</sup>	State Average Severity Rate <sup>3</sup>	Crash Severity Critical Rate <sup>4, 5</sup>	Crash Severity Critical Index
98th Street & South Access	Through/Stop	10	108,131,250	0.09	0.19	0.30	0.31	0.14	0.28	0.42	0.33

<sup>&</sup>lt;sup>1</sup>Crash Data obtained from MnCMAT & the City of Bloomington.

The observed crash rate at the 98th Street/South Access intersection (0.09 crashes/MEV) is below both the statewide average crash rate and the corresponding critical crash rate. Therefore, the number of reported crashes would not indicate a statistically significant safety concern.

#### Crash Severity

The severity of reported crashes was also investigated. The purpose for analyzing this factor is to identify locations that experience a low crash rate but have a high percentage of injury or fatal crashes. Conversely, locations with high crash rates and a large proportion of non-injury crashes may not warrant as much priority when deficiencies are being addressed. It should be noted that one (1) Type B non-incapacitating injury crash occurred on 98th Street at the South Access intersection when an eastbound through motorist collided with a crossing pedestrian. Three (3) Type C possible injury crashes also occurred, while six (6) crashes were property damage only.

The calculated severity rate (0.14) at the 98th Street/South Access intersection is below both the statewide average severity rate and the corresponding critical severity rate. Therefore, the severity of reported crashes would not indicate a statistically significant safety concern.

#### Safety Conclusions

Based on the detailed crash analysis at the 98th Street/South Access intersection, the existing three-quarter access does not have a statistically significant safety concern.

#### Safety Considerations at the Lyndale Avenue/Southeast Access Intersection

Sight distance for outbound (i.e., eastbound) right-turning motorists can be obstructed by parked cars at the Lyndale Avenue/Southeast Access intersection. However, these motorists are able to pull forward to avoid sight obstructions from the parked cars and still be protected from approaching southbound traffic by an extended curb to the north. Furthermore, it should be noted that no crashes were confirmed at this intersection over the ten-year period from 2011 through 2020. Maintaining the existing right-out only condition at the South Access is recommended, as it may be difficult for outbound motorists to distinguish between a southbound vehicle turning right into the Clover Center versus a southbound vehicle continuing on to turn right at 98th Street.

<sup>&</sup>lt;sup>2</sup> Mainline AADT volume obtained from MnDOT Traffic Mapping Application. Side-street daily volume esimates based on 2021 turning movement counts.

<sup>&</sup>lt;sup>3</sup> MnDOT's 2015 Green Sheets were used to determine the state average crash rates.

<sup>&</sup>lt;sup>4</sup> The critical rate is a statistically adjusted crash rate to account for random nature of crashes

<sup>&</sup>lt;sup>5</sup> A 99.5% confidence level was assumed for critical crash and severity rates.

<sup>&</sup>lt;sup>6</sup> Severity rate factors: 5 for Fatal Crashes, 4 for A type, 3 for B type, 2 for C type, and 1 for Property Damage

#### 5.1.2 Internal Traffic Circulation

- The proposed internal roadways appear to adequately accommodate typical passenger vehicles. However, truck turning movements should be reviewed to ensure design vehicles such as delivery trucks have adequate accommodations to negotiate internal roadways.
  - O The site developer has proposed for large trucks to enter via the Northeast Access along Lyndale Avenue, exit via the South Access along 98th Street, and traverse the site in a westbound direction behind the Clover Center. It should be noted that the existing internal roadway behind the Clover Center, which is too narrow in spots to effectively allow two-way traffic flow, is currently oriented for one-way traffic in the eastbound direction. A loading dock and a Salvation Army family store drop-off area behind the retail structure to remain are currently oriented for one-way traffic in the eastbound direction. The site developer should consider maintaining one-way traffic flow in the eastbound direction behind the Clover Center, and also orienting the loading dock behind the proposed grocery store for one-way traffic in the eastbound direction.
    - Maintaining one-way traffic flow in the eastbound direction behind the Clover Center has the benefit of funneling more outbound traffic toward the full access Northeast Access intersection.
    - Large trucks may be able to access the site from I-35W via an eastbound left-turn at the South Access along 98th Street without running over a recommended channelizing raised median promoting three-quarter access.
- Large deliveries should be prioritized outside peak periods to minimize conflicts onsite.
- Ensure the installation of proper wayfinding signing, particularly for those motorists who may need to enter or exit via Lyndale Avenue.
- To allow free movement of inbound vehicular traffic at the 98th Street/South Access intersection, install "Do Not Block Intersection" signing on the southbound approach at the first internal driveway intersection.

#### 5.1.3 Pedestrian/Bicycle Connectivity

• The proposed site plan shows good pedestrian connections to existing sidewalks.

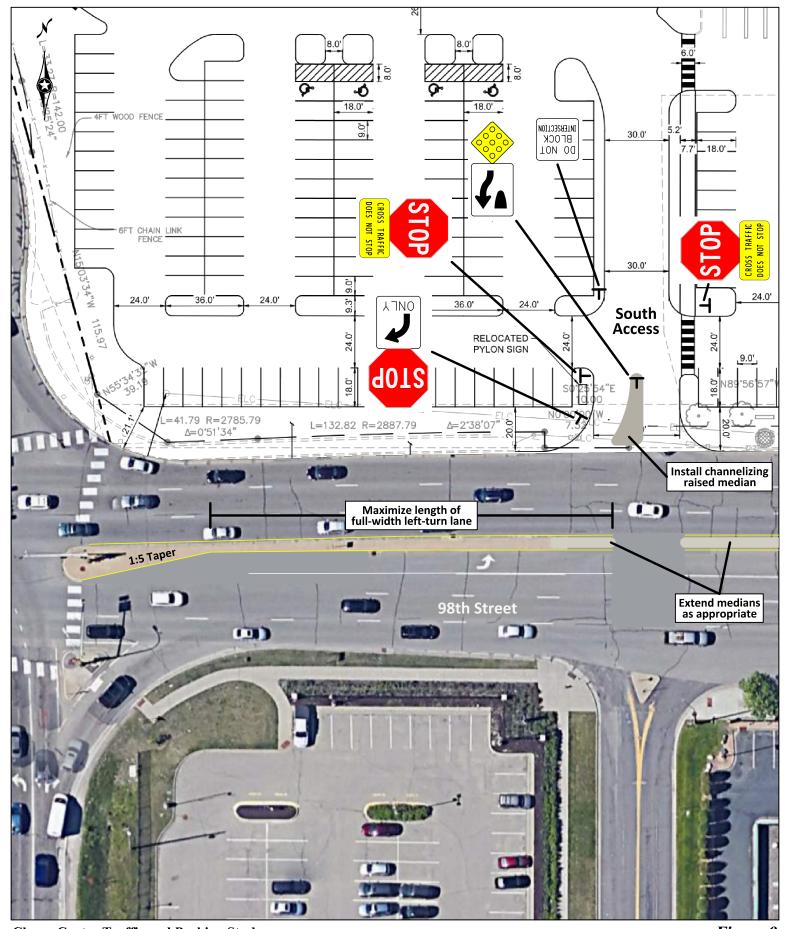
#### 5.1.4 Parking Layout/Capacity

#### **Parking Layout**

- The proposed site plan shows well organized parking aisles with appropriate end caps.
  - The proposed site plan eliminates existing offset parking lot aisles along the South Access driveway.
- Install appropriate traffic control (i.e., stop signs) at higher volume internal parking lot intersections to properly establish right-of-way and minimize motorist confusion.

An illustration of recommended improvements at the South Access is shown in **Figure 9**.





**Clover Center Traffic and Parking Study** 

Figure 9
Recommended Site Plan Improvements



#### **Parking Capacity**

Under the current redevelopment proposal, a total of 230 parking stalls would be provided onsite.

#### Bloomington Zoning Code Requirement

The Bloomington Zoning Code (Section 21.301.06 Parking and Loading) regulates the minimum off-street parking supply for various land uses. Relevant land uses in this case include Retail, Grocery, and Bank. Parking requirements based on the zoning code were obtained from City of Bloomington staff. Code required parking for the proposed Clover Center redevelopment is provided in **Table 9**.

Table 9 – Bloomington Zoning Code Parking Requirement

Land Use	Parking Rate (1)	Proposed Development	Required Parking Stalls
Retail	55 stalls + 1 additional stall / 220 SF GFA over 10,000 SF GFA	32,800 SF GFA <sup>(2)</sup>	158.6
Grocery	1 stall / 225 SF GFA	22,000 SF GFA	97.8
Bank	1 stall / 240 SF GFA	4,588 SF GFA	19.1
	276		

SF GFA = Square Feet of Gross Floor Area

Based on the Bloomington Zoning Code, the proposed redevelopment would be required to provide 276 off-street parking stalls. Based on this requirement, the proposed parking supply of 230 stalls represents a 46-stall deficiency. Therefore, a parking demand data driven approach is necessary to estimate the adequacy of the proposed parking supply.

#### Parking Demand Analysis

Parking demand for the proposed redevelopment was estimated based on applicable parking rates in the *Institute of Transportation Engineers Parking Generation Manual, 5th Edition (ITE PGM)*. The *ITE PGM* is an industry standard resource for estimating the parking demand of numerous land uses. **Table 10** documents the *ITE PGM* estimated peak parking demand for each component and the whole of the proposed redevelopment. The *ITE PGM* based peak parking demand estimates of 143 vehicles on a weekday and 186 vehicles on a Saturday are below the proposed parking supply of 230 stalls. Based on the peak parking demand estimates, the proposed redevelopment would be expected to exhibit at least a 20 percent parking surplus over all time periods.

<sup>(1)</sup> Section 21.301.06 of the Bloomington City Code

<sup>(2)</sup> Approximately 31,663 Square Feet of Leasable Floor Area

Table 10 – Parking Demand Analysis Summary

Land Use (ITE Code)	Units	Size	Weekday Peak Parking Demand <sup>(1)</sup> (vehicles)	Saturday Peak Parking Demand <sup>(1)</sup> (vehicles)	Proposed Parking Supply (stalls)	Weekday Parking Surplus (stalls)	Saturday Parking Surplus (stalls)
Shopping Center (820)	Square Feet	31,663	62	92			
Supermarket (850)	Square Feet	22,000	64	80	220	87	44
Drive-In Bank (912)	Square Feet	4,588	17	14	230		44
		Totals	143	186			

Setting Assumption: General Urban/Suburban

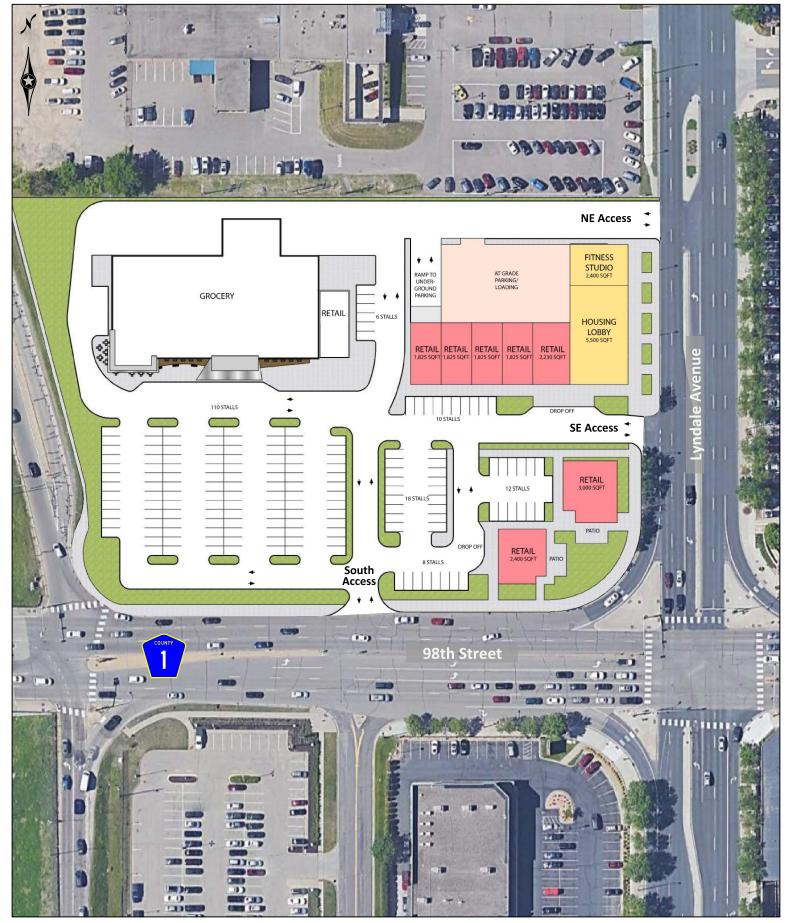
It should be noted that the Clover Center peak parking demand would be expected to occur in the late afternoon/early evening hours on weekdays and in the early afternoon on weekends. As with the anticipated trip generation, limited seasonal variability would be expected in parking generated by the proposed Clover Center. As noted earlier, while retail centers typically exhibit a late-year holiday shopping boost, current and anticipated future retail leasers may not necessarily be of the type to receive a significant holiday shopping boost. Given the proposed redevelopment parking demand is expected to be adequately accommodated onsite, no impacts to surrounding properties or roadways are anticipated.

#### 5.1.5 Future Full Redevelopment

The currently proposed grocery and retail redevelopment may only be an initial phase of a future full Clover Center redevelopment. As shown in **Figure 10**, a future full redevelopment site plan could consist of additional reconstructed retail space as well as potential multifamily residential apartments. The potential future site plan would provide more of a continuous internal roadway between the 98th Street/South Access intersection and the Lyndale Avenue/Northeast Access intersection. This internal roadway would provide convenient access to underground parking below a new structure in the northeastern quadrant of the site, presumably reserved for residential parking. Much of the remainder of the potential future site plan would function similar to the currently proposed redevelopment site plan.

One concern related to the potential future full redevelopment site plan is a 12-stall parking lot with only one internal access near the southeastern limits of the site. Such a lot will undoubtably experience the occasional issue in which a motorist enters the lot when already full. Reversing out of the lot for these motorists could then become problematic. Reconfiguring the 12-stall parking lot to provide a second access would be recommended if the full redevelopment comes to fruition.

<sup>(1)</sup> Estimated peak parking demand based on applicable rates from the ITE Parking Generation Manual, 5th Edition.



**Clover Center Traffic and Parking Study** 

Figure 10 Future Full Redevelopment Site Plan



#### 6.0 Conclusions and Recommendations

The following study conclusions and recommendations are offered for consideration:

- Results of the forecast year 2024 no build conditions traffic operations analysis indicate that
  all study intersections are expected operate at overall LOS C or better during the a.m. and p.m.
  peak hours. No significant delay issues were observed at study intersections in the traffic
  simulations, though moderate queueing was observed in several locations.
  - Currently, approximately 100 feet of full-width storage is provided in the eastbound left-turn lane at the 98th Street/South Access intersection. At approximately 105 feet, 95th percentile queuing was observed to slightly exceed the full-width storage of the eastbound left-turn lane in the p.m. peak hour traffic simulations. However, the last vehicle at this queue length would still be expected to be accommodated within the width of the existing left-turn lane taper.
- The Clover Center, located in the northwest quadrant of the 98th Street/Lyndale Avenue intersection in Bloomington, is proposed to be partially redeveloped. The proposed redevelopment is initially anticipated to displace 28,232 square feet of existing retail space on the west side of the Clover Center site. The demolished structure is anticipated to be replaced by a 22,000-square-foot grocery store and 1,800 square feet of new retail space. Access to the Clover Center site is expected to remain nearly unchanged, with a three-quarter access available along 98th Street, and full and right-in only accesses along Lyndale Avenue.
  - o The proposed redevelopment is expected to generate approximately 296 a.m. peak hour trips, 578 p.m. peak hour trips, and 6,020 daily trips. Considering the estimated trip generation of the current Clover Center under a full occupancy scenario, the redeveloped Clover Center is anticipated to generate a net new trip increase of approximately 71 a.m. peak hour trips, 120 p.m. peak hour trips, and 1,366 daily trips.
- Results of the year 2024 build conditions traffic operations analysis indicate that all study
  intersections are expected to continue operating at overall LOS C or better during the a.m. and
  p.m. peak hours. Generally, the proposed Clover Center redevelopment is expected to have
  minimal impact on study area traffic operations.
  - o However, as the Clover Center South Access is reconstructed under the proposed redevelopment, maximizing the length of the full-width eastbound left-turn lane should be considered for additional ingress vehicle storage.
- A review of the proposed site plan was completed to identify any issues and recommended
  potential improvements regarding vehicle ingress/egress, internal traffic circulation,
  pedestrian/bicycle connectivity, and parking layout/capacity. The key points on the following
  page are offered for consideration:

- Continue to utilize proper signing and pavement markings to enforce vehicle movement restrictions at the three-quarter South Access and right-out only Southeast Access.
- At the Northeast Access, sign for two outbound lanes (i.e., left-turn and right-turn lanes).
- At the South Access on the southbound approach to 98th Street, install a channelizing raised median to physically guide motorists into making an outbound right-turn maneuver. Extend or adjust the 98th Street raised medians as appropriate to minimize the potential for prohibited outbound (i.e., southbound) left-turn maneuvers from the Clover Center.
- O Based on a detailed crash analysis at the 98th Street/South Access intersection, the existing three-quarter access does not have a statistically significant safety concern.
- Truck turning movements should be reviewed to ensure design vehicles such as delivery trucks have adequate accommodations to negotiate internal roadways.
  - The site developer has proposed for large trucks to enter via the Northeast Access along Lyndale Avenue, exit via the South Access along 98th Street, and traverse the site in a westbound direction behind the Clover Center. It should be noted that the existing internal roadway behind the Clover Center, which is too narrow in spots to effectively allow two-way traffic flow, is currently oriented for one-way traffic in the eastbound direction. A loading dock and a Salvation Army family store drop-off area behind the retail structure to remain are currently oriented for one-way traffic in the eastbound direction. The site developer should consider maintaining one-way traffic flow in the eastbound direction behind the Clover Center, and also orienting the loading dock behind the proposed grocery store for one-way traffic in the eastbound direction.
    - Maintaining one-way traffic flow in the eastbound direction behind the Clover Center has the benefit of funneling more outbound traffic toward the full access Northeast Access intersection.
    - Large trucks may be able to access the site from I-35W via an eastbound left-turn
      at the South Access along 98th Street without running over a recommended
      channelizing raised median promoting three-quarter access.
- o Large deliveries should be prioritized outside peak periods to minimize conflicts onsite.
- Ensure the installation of proper wayfinding signing, particularly for those motorists who may need to enter or exit via Lyndale Avenue.
- To allow free movement of inbound vehicular traffic at the 98th Street/South Access intersection, install "Do Not Block Intersection" signing on the southbound approach at the first internal driveway intersection.
- o Install appropriate traffic control (i.e., stop signs) at higher volume internal parking lot intersections to properly establish right-of-way and minimize motorist confusion.
- The peak parking demand for the proposed Clover Center is estimated to be 186 vehicles. At this peak parking demand, the proposed parking supply of 230 stalls would exhibit at least a 20 percent parking surplus.



# **Appendix A – 98th Street/Lyndale Avenue 2017 Turning Movement Count**



74

98th Street/Lyndale Avenue Intersection Turning Movement Count (Alliant Engineering - December 2017)

Time	SB Utrn	SB Left	SB Thru	SB Right	Peds/ Bikes	WB Utrn	WB Left	WB Thru	WB Right	Peds/ Bikes	NB Utrn	NB Left	NB Thru	NB Right	Peds/ Bikes	EB Utrn	EB Left	EB Thru	EB Right	Peds/ Bikes
6:00	0	1	4	10	0	0	3	68	19	0	0	11	13	5	0	1	22	33	10	0
6:15	0	1	6	15	0	0	7	81	19	0	0	7	14	3	0	0	12	56	6	0
6:30	0	1	10	13	0	0	7	114	13	0	0	11	20	11	0	0	20	72	11	0
6:45	0	2	12	11	0	0	6	130	13	0	0	21	26	3	0	0	27	72	16	0
7:00	0	5	13	18	0	0	7	136	17	0	0	11	17	4	0	0	46	79	7	1
7:15	0	4	13	18	0	0	14	123	12	0	0	10	27	14	0	0	34	110	15	0
7:30	0	10	14	19	0	0	10	136	21	0	0	23	35	5	0	0	52	130	17	0
7:45	0	4	17	17	2	0	8	143	21	0	0	17	35	5	0	0	43	107	30	0
8:00	0	8	8		0	0	9	128	20	0	0	17	15	8	0	0	42	92	17	0
8:15	0	7	10	28	0	0	8	122	14	0	0	27	25	4	0	0	56	96	24	0
8:30	0	14	12	26	0	0	12	119	23	0	0	16	27	8	0	0	43	87	27	0
8:45	0	7	14	34	0	0	10	100	10 14	0	0	20	27	7 5	0	0	42	100	26 20	1
9:00 9:15	0	7	24 17	36 34	0	0	13 9	114 102	10	0	0	22 22	35 24	6	0	0	43 42	83 85	23	0 2
9:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
9:45	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	_
10:00	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:15	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
10:30	0	16	28	33	0	0	10	97	15	0	0	27	38	14	0	0	56	116	21	1
10:45	0	19	20	48	0	0	24	115	9	0	0	32	32	10	1	0	40	110	36	0
11:00	0	17	32	50	1	0	14	95	7	3	0	36	32	17	0	0	43	101	26	1
11:15	0	26	48	58	6	0	8	109	5	1	0	33	45	13	0	0	53	125	44	1
11:30	0	37	40	57	3	0	8	121	13	0	1	39	45	6	0	0	48	110	51	0
11:45	0	23	31	56	0	0	18	136	12	1	0	48	40	12	0	0	61	119	33	0
12:00	1	34	32	53	3	0	9	139	5	2	0	38	47	7	0	0	62	110	47	1
12:15	0	30	34	65	0	0	7	144	9	0	0	54	48	18	0	0	65	126	43	0
12:30	0	33	40	59	0	0	20	120	13	2	0	44	55	11	0	0	68	123	38	2
12:45	0	28	30	73	0	0	17	120	8	1	0	40	28	16	0	0	63	105	47	0
13:00	0	25	32	69	1	0	11	149	11	3	0	34	31	9	0	0	72	132	47	1
13:15	0	39	42	52	0	0	21	125	17	3	0	43	51	8	0	0	58	96	46	5
13:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
13:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	_
14:00	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
14:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	-
14:30	0	24	38	62	0	0	22	152	11	3	0	48	46	10	0	0	44	133	57	3
14:45	0	30	39	43	1	0	21	145	5	0	0	42	45	14	0	0	46	147	43	1
15:00	0	22	57	50	0	0	19	142	16	1	0	48	40	8	0	0	36	129	42	0
15:15	0	29	38	64	0	0	20	167	25	1	0	48	39	14	0	0	46	130	50	2 5
15:30 15:45	0	36 17	55 54	58 66	0	0	15 18	169 165	18 11	2	0	31 47	35 31	11 14	1	0	32 39	172 159	48 60	2
16:00	0	40	61	84	1	0	14	145	9	2	0	47	30	14	0	0	45	199	47	1
16:15	0	57	66	59	3	0	14	164	9	3	0	31	39	11	0	0	45	202	47	2
16:30	0	47	74	74	0	0	25	195	8	0	0	37	36	18	0	0	44	202	49	0
16:45	0	41	64	73	0	0	18	200	5	0	0	33	39	14	0	0	41	201	67	1
17:00	0	34	78	100	0	0	28	153	13	0	0	36	60	17	0	0	51	224	39	0
17:15	0	46	58	71	0	0	14	191	9	0	0	34	52	12	0	0	35	198	52	0
17:30	0	24	57	63	0	0	31	170	18	0	0	32	49	2	0	0	50	199	52	0
17:45	0	42	43	64	0	0	25	184	7	0	0	42	31	8	0	0	32	199	50	0

**Appendix B – Detailed Operations and Queuing Analysis** 



Traffic Control	itions - AM Peak Hour Intersection	MOE		ound Ap			ound Ap			ound Ap			oound Ap		Intersecti
Tunic Control	mersection	Movement Delay (sec/veh)	<b>EBL</b> 0.0	<b>EBT</b> 13.3	<b>EBR</b> 4.5	WBL 50.0	<b>WBT</b> 4.1	<b>WBR</b> 0.0	NBL 46.4	<b>NBT</b> 0.0	NBR 11.1	<b>SBL</b> 46.9	SBT 41.1	<b>SBR</b> 1.8	Total 14.1
T (" 0: 1	98th Street &	Movement LOS	Α	В	Α	D	Α	Α	D	Α	В	D	D	Α	В
Traffic Signal	I-35W SB Offramp/ Dupont Avenue	Movement 95th Queue (ft) Approach Delay (sec/veh)	0	205 12.9	39	96	98 7.8	0	153	0 23.6	123	191	74 19.1	19	
		Approach LOS		В			Α			С			В		
raffic Control	Intersection	MOE		ound Ap	•		ound Ap			ound Ap			ound Ap		Intersecti
		Movement Delay (sec/veh)	<b>EBL</b> 37.9	<b>EBT</b> 3.6	<b>EBR</b> 0.0	<b>WBL</b> 0.0	13.3	11.0	NBL 48.8	<b>NBT</b> 46.5	NBR 14.0	<b>SBL</b> 0.0	<b>SBT</b> 0.0	<b>SBR</b> 0.0	Total 20.3
Traffic Signal	98th Street &	Movement LOS  Movement 95th Queue (ft)	D 316	A 118	A 0	A 0	B 157	B 240	D 282	D 309	B 309	A 0	A 0	A 0	С
Tranic Oignai	I-35W NB Ramps	Approach Delay (sec/veh)	010	14.3		Ů	12.8	240	202	39.4	000	Ů	0.0	·	
		Approach LOS		В			В			D		<u> </u>	Α		
raffic Control	Intersection	MOE	Eastb EBL	ound Ap EBT	proach EBR	Westb WBL	ound Ap	proach WBR	Northb NBL	ound Ap	proach NBR	South! SBL	oound Ap	proach SBR	Intersect Total
		Movement Delay (sec/veh)	10.9	2.2	0.0	0.0	2.9	1.9	0.0	0.0	0.0	0.0	0.0	6.4	2.9
Through/Stop	98th Street &	Movement LOS  Movement 95th Queue (ft)	B 58	A 16	A 0	A 0	11	A 16	A 0	A 0	A 0	A 0	A 0	A 56	A
3 . 1	South Access	Approach Delay (sec/veh)		2.8			2.9			0.0			6.4		
		Approach LOS		Α		J	Α			Α		Į.	Α		
Traffic Control	Intersection	MOE	Eastb EBL	ound Ap EBT	proach EBR	Westb	ound Ap	proach WBR	Northb NBL	ound Ap	proach NBR	South! SBL	oound Ap	proach SBR	Intersect Total
		Movement Delay (sec/veh)	38.9	5.9	1.3	54.0	15.7	1.3	50.1	42.5	3.8	55.6	44.1	0.9	19.0
Traffic Signal	98th Street &	Movement LOS  Movement 95th Queue (ft)	D 132	90	A 0	D 35	B 176	A 0	D 117	D 91	41	E 74	D 61	A 0	В
3	Lyndale Avenue	Approach Delay (sec/veh)		14.0			15.9			41.7			23.9		
		Approach LOS		В		J	В		<u> </u>	D		Į.	С		
Traffic Control	Intersection	MOE	Eastb EBL	ound Ap EBT	proach EBR	Westb	ound Ap	proach WBR	Northb NBL	ound Ap	proach NBR	South! SBL	oound Ap SBT	proach SBR	Intersect Total
		Movement Delay (sec/veh)	0.0	0.0	2.6	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.6	0.0	1.4
Through/Stop	Lyndale Avenue &	Movement LOS  Movement 95th Queue (ft)	A 0	A 0	A 40	A 0	A 0	A 0	A 0	A 0	A 0	0 0	A 0	A 0	A
	Southeast Access	Approach Delay (sec/veh)		2.6			0.0	1		1.7			0.6		
		Approach LOS		Α			Α			Α			Α		
Traffic Control	Intersection	MOE	Eastb EBL	ound Ap EBT	proach EBR	Westb WBL	ound Ap	proach WBR	Northb NBL	ound Ap	proach NBR	South! SBL	oound Ap	proach SBR	Intersect Total
		Movement Delay (sec/veh)	7.1	0.0	2.9	0.0	0.0	0.0	2.9	0.3	0.0	0.0	0.2	0.2	0.6
Through/Stop	Lyndale Avenue &	Movement LOS  Movement 95th Queue (ft)	A 46	A 0	23	A 0	A 0	A 0	A 21	A 0	A 0	A 0	A 3	A 3	A
	Northeast Access	Approach Delay (sec/veh)		6.4 A	1		0.0 A		'	0.4 A			0.2 A		
		Approach LOS		А		I	A			А			A		
124 No Build Cond Traffic Control	itions - PM Peak Hour Intersection	MOE	Eastb	ound Ap	proach	Westb	ound Ap	proach	Northb	ound Ap	proach	South	oound Ap	proach	Intersecti
Tranic Control	intersection	Movement Delay (sec/veh)	<b>EBL</b> 0.0	<b>EBT</b> 23.6	<b>EBR</b> 9.9	WBL 52.0	<b>WBT</b> 1.8	<b>WBR</b> 0.0	NBL 53.6	<b>NBT</b> 0.0	NBR 18.4	SBL 53.1	SBT 45.6	SBR 1.7	Total 18.5
	98th Street &	Movement LOS	Α	С	Α	D	Α	Α	D	Α	В	D	D	Α	16.5 B
Traffic Signal	I-35W SB Offramp/ Dupont Avenue	Movement 95th Queue (ft) Approach Delay (sec/veh)	0	587 22.1	121	163	72 8.2	0	120	0 29.0	126	155	116 22.6	0	
		Approach LOS		C			Α			C			C		
Fraffic Control	Interposion	MOE	Eastb	ound Ap	proach	Westb	ound Ap	proach	Northb	ound Ap	proach	South	oound Ap	proach	Intersect
Trainic Control	Intersection	Movement Delay (sec/veh)	<b>EBL</b> 32.1	<b>EBT</b> 2.3	<b>EBR</b> 0.0	<b>WBL</b> 0.0	<b>WBT</b> 13.5	WBR 14.5	NBL 57.0	NBT 64.5	NBR 11.4	<b>SBL</b> 0.0	<b>SBT</b> 0.0	SBR 0.0	Total 14.6
	004- 044 8	Movement LOS	C C	Α	Α	Α	В	B	57.0 E	E	В	0.0 A	Α	Α	B
Traffic Signal	98th Street & I-35W NB Ramps	Movement 95th Queue (ft) Approach Delay (sec/veh)	321	82 8.7	0	0	197 13.6	245	225	255 38.0	255	0	0.0	0	
		Approach LOS		Α			В			D			Α		
Traffic Control	Interception	MOE	Eastb	ound Ap	proach	Westb	ound Ap	proach	Northb	ound Ap	proach	South	oound Ap	proach	Intersect
ranic Control	Intersection	MOE  Movement Delay (sec/veh)	EBL 28.8	<b>EBT</b> 3.3	<b>EBR</b> 0.0	<b>WBL</b> 0.0	<b>WBT</b> 3.8	<b>WBR</b> 3.1	<b>NBL</b> 0.0	<b>NBT</b> 0.0	NBR 0.0	<b>SBL</b> 0.0	<b>SBT</b> 0.0	SBR 13.0	Total 4.8
			20.0 D	3.3 A	0.0 A	0.0 A	3.6 A	3.1 A	Α	0.0 A	0.0 A	0.0 A	0.0 A	13.0 B	4.6 A
	09th Street 9	Movement LOS										0	0	82	
Through/Stop	98th Street & South Access	Movement LOS Movement 95th Queue (ft)	104	31	0	0	16 3.8	23	0	0	0	U	13.0		
Through/Stop		Movement LOS			0	0	16 3.8 A	23	0	0 0.0 A	0	U	13.0 B		
	South Access	Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS	104	31 5.2			3.8			0.0				pproach	Intersect
Traffic Control		Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS	Eastb	31 5.2 A ound Ap	proach EBR	Westb WBL	3.8 A ound Ap	proach WBR	Northb NBL	0.0 A ound Ap	proach NBR	South! SBL	B oound Ap SBT	SBR	Intersect Total
	South Access  Intersection	Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS	104 Eastb	31 5.2 A ound Ap	proach	Westb	3.8 A ound Ap	proach	Northb	0.0 A ound Ap	proach	South	B ound Ap	_	
	South Access	Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS  MOE  Movement Delay (sec/veh) Movement LOS Movement 95th Queue (ft)	Eastb EBL 39.3	31 5.2 A ound Ap EBT 14.4 B 204	proach EBR 1.8	Westb WBL 59.8	3.8 A ound Ap WBT 27.3 C 293	proach WBR 1.2	Northb NBL 52.5	0.0 A ound Ap NBT 50.8 D	proach NBR 9.5	Southle SBL 47.9	B Dound Ap SBT 48.8 D 177	SBR 1.1	Total 26.2
Fraffic Control	South Access  Intersection  98th Street &	Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS  MOE  Movement Delay (sec/veh) Movement LOS	Eastb EBL 39.3 D	31 5.2 A ound Ap EBT 14.4 B	proach EBR 1.8	Westb WBL 59.8	3.8 A ound Ap WBT 27.3 C	proach WBR 1.2 A	Northb NBL 52.5	0.0 A ound Ap NBT 50.8 D	proach NBR 9.5	South! SBL 47.9	B cound Ap SBT 48.8 D	1.1 A	Total 26.2
Fraffic Control Traffic Signal	South Access  Intersection  98th Street & Lyndale Avenue	Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS  MOE  Movement Delay (sec/veh) Movement LOS Movement LOS Movement D9th Queue (ft) Approach Delay (sec/veh) Approach LOS	Eastb EBL 39.3 D	31 5.2 A ound Ap EBT 14.4 B 204 16.0 B	proach EBR 1.8 A 55	Westb WBL 59.8 E 89	3.8 A ound Ap WBT 27.3 C 293 29.2 C	wbr WBR 1.2 A	Northb NBL 52.5 D 162	0.0 A ound Ap NBT 50.8 D 158 45.0	proach NBR 9.5 A	South! SBL 47.9 D 202	B  Dound Ap  SBT  48.8  D  177  28.8  C	SBR 1.1 A 0	Total 26.2 C
Fraffic Control	South Access  Intersection  98th Street &	Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS  MOE  Movement Delay (sec/veh) Movement LOS Movement DSH Queue (ft) Approach Delay (sec/veh) Approach LOS  MOE	Eastb EBL 39.3 D 114	31 5.2 A ound Ap EBT 14.4 B 204 16.0 B	proach EBR 1.8 A 55	Westb WBL 59.8 E 89	3.8 A ound Ap WBT 27.3 C 293 29.2 C ound Ap WBT	proach WBR 1.2 A 0	Northb NBL 52.5 D 162	0.0 A ound Ap NBT 50.8 D 158 45.0 D	proach NBR 9.5 A 60	Southly SBL 47.9 D 202 Southly SBL	B  pound Ap  SBT  48.8  D  177  28.8  C  pound Ap  SBT	SBR 1.1 A 0	Total 26.2 C Intersect Total
Fraffic Control Traffic Signal	South Access  Intersection  98th Street & Lyndale Avenue  Intersection	Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS  MOE  Movement Delay (sec/veh) Movement LOS Movement LOS Movement D9th Queue (ft) Approach Delay (sec/veh) Approach LOS	Eastb EBL 39.3 D 114	31 5.2 A ound Ap EBT 14.4 B 204 16.0 B	proach EBR 1.8 A 55	Westb WBL 59.8 E 89	3.8 A ound Ap WBT 27.3 C 293 29.2 C	proach WBR 1.2 A 0	Northb NBL 52.5 D 162	0.0 A ound Ap NBT 50.8 D 158 45.0 D	proach NBR 9.5 A 60	Southl SBL 47.9 D 202	B cound Ap SBT 48.8 D 177 28.8 C cound Ap	SBR 1.1 A 0	Total 26.2 C
Fraffic Control Traffic Signal	South Access  Intersection  98th Street & Lyndale Avenue	Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS  MOE  Movement Delay (sec/veh) Movement LOS Movement 95th Queue (ft) Approach LOS  MOE  MOE  Movement Delay (sec/veh) Approach LOS  Movement Delay (sec/veh) Approach Delay (sec/veh) Approach LOS	Eastb EBL 39.3 D 114  Eastb EBL	31 5.2 A ound Ap EBT 14.4 B 204 16.0 B ound Ap EBT 0.0 A	proach EBR 1.8 A 55	Westh WBL 59.8 E 89 Westh WBL	3.8 A ound Ap WBT 27.3 C 293 29.2 C ound Ap WBT 0.0 A 0	wBR 1.2 A 0	Northb NBL 52.5 D 162 Northb NBL 0.0	0.0 A ound Ap NBT 50.8 D 158 45.0 D ound Ap NBT 1.9 A 5	proach NBR 9.5 A 60	Southly SBL 47.9 D 202 Southly SBL 0.0	B  DOUND AF  SBT  48.8  D  177  28.8  C  DOUND AF  SBT  1.6  A  33	SBR 1.1 A 0 pproach SBR 0.0	Total 26.2 C Intersect Total 2.2
raffic Control Traffic Signal	Intersection  98th Street & Lyndale Avenue  Lyndale Avenue &	Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS  MOE  Movement Delay (sec/veh) Movement LOS Movement 95th Queue (ft) Approach LOS  MOE  MOE  MOE  MOE  MOE  MOE  Movement Delay (sec/veh) Approach LOS	Eastb EBL 39.3 D 114  Eastb EBL 0.0 A	31 5.2 A ound Ap EBT 14.4 B 204 16.0 B ound Ap EBT 0.0 A	proach EBR 1.8 A 55	Westb WBL 59.8 E 89 Westb WBL 0.0	3.8 A ound Ap WBT 27.3 C 293 29.2 C ound Ap WBT 0.0 A	wBR 1.2 A 0	Northb NBL 52.5 D 162 Northb NBL 0.0 A	0.0 A ound Ap NBT 50.8 D 158 45.0 D ound Ap NBT 1.9 A	proach NBR 9.5 A 60	Southly SBL 47.9 D 202 Southly SBL 0.0 A	B  pound Ap  SBT  48.8  D  177  28.8  C  pound Ap  SBT  1.6  A	SBR 1.1 A 0 pproach SBR 0.0 A	Total 26.2 C Intersect Total 2.2
Traffic Control  Traffic Signal  Traffic Control  Through/Stop	Intersection  98th Street & Lyndale Avenue  Intersection  Lyndale Avenue & Southeast Access	Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS  MOE  Movement Delay (sec/veh) Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS  MOE  Moe  Moe Movement Delay (sec/veh) Approach LOS	Eastb EBL 39.3 D 114  Eastb EBL 0.0 A 0	31 5.2 A ound Ap EBT 14.4 B 204 16.0 B ound Ap EBT 0.0 A 0	proach	Westh WBL 59.8 E 89 Westh WBL 0.0 A 0	3.8 A ound Ap WBT 27.3 C 293 29.2 C ound Ap WBT 0.0 A 0 0.0 A	proach WBR 1.2 A 0 proach WBR 0.0 A 0	Northb NBL 52.5 D 162  Northb NBL 0.0 A 0	0.0 A  ound Ap  NBT 1.9 A 5 1.9 A	proach NBR 9.5 A 60  proach NBR 0.0 A 0	South   SBL   47.9   D   202	B  poound Ap	SBR	Intersect C  Intersect A
Traffic Control  Traffic Signal  Traffic Control  Through/Stop	Intersection  98th Street & Lyndale Avenue  Lyndale Avenue &	Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS  MOE  Movement Delay (sec/veh) Movement LOS Movement D9th Queue (ft) Approach Delay (sec/veh) Approach LOS  MOE  Movement DoS  Movement LOS  Movement LOS	Eastb EBL 39.3 D 114  Eastb EBL 0.0 A 0	31 5.2 A ound Ap EBT 14.4 B 204 16.0 B ound Ap EBT 0.0 A 0 11.1 B	proach EBR 1.8 A 55  proach EBR 11.1 B 59  proach EBR	Westh WBL 59.8 E 89 Westh WBL 0.0 A 0	3.8 A ound Ap WBT 27.3 C 293 29.2 C ound Ap WBT 0.0 A 0 0.0 A ound Ap	proach WBR 1.2 A 0 proach WBR 0.0 A 0 proach WBR 0.0 A 0	Northb NBL 52.5 D 162 Northb NBL 0.0 A 0	0.0 A ound Ap NBT 50.8 D 158 45.0 D ound Ap NBT 1.9 A ound Ap NBT A ound Ap NBT	proach NBR 9.5 A 60 proach NBR 0.0 A 0	Southl SBL 47.9 D 202 Southl SBL 0.0 A 0	B pound Ap SBT 48.8 D 177 28.8 C pound Ap SBT 1.6 A 33 1.6 A pound Ap SBT SBT SBT A 33 1.6 A	SBR 1.1 A 0 proach SBR 0.0 A 0 proach SBR	Intersect  A  Intersect Total
Traffic Control  Traffic Signal	Intersection  98th Street & Lyndale Avenue  Intersection  Lyndale Avenue & Southeast Access	Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS  MOE  Movement Delay (sec/veh) Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS  MOE  Moe  Moe Movement Delay (sec/veh) Approach LOS	Eastb EBL 0.0 A 0	31 5.2 A ound Ap EBT 14.4 B 204 16.0 B ound Ap EBT 0.0 A 0 11.1 B	proach EBR 1.8 A 55  proach EBR 11.1 B 59	Westb WBL 59.8 E 89 Westb WBL 0.0 A	3.8 A ound Ap WBT 0.0 A 0 0.0 A ound Ap WBT 0.0 A 0 0.0 A ound Ap Ound Ap Ound Ap	proach WBR 1.2 A 0 proach WBR 0.0 A 0	Northb NBL 52.5 D 162 Northb NBL 0.0 A	0.0 A  ound Ap  NBT 1.9 A 5 1.9 A ound Ap	proach NBR 9.5 A 60  proach NBR 0.0 A 0	Southle SBL 47.9 D 202 Southle SBL 0.0 A 0	B  cound Ap  SBT  48.8  D  177  28.8  C  cound Ap  SBT  1.6  A  33  1.6  A  cound Ap  cound Ap	SBR 1.1 A 0 pproach SBR 0.0 A 0	Intersect  A  Intersect

# 100: 98th St & South Access Performance by movement

Mayramant	EDI	EDT	WDT	WDD	CDD	A.II
Movement	EBL	EBT	WBT	WBR	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.2	0.4	0.6	0.0	0.1	1.3
Total Del/Veh (s)	10.9	2.2	2.9	1.9	6.4	2.9
Stop Delay (hr)	0.1	0.2	0.0	0.0	0.1	0.4
Stop Del/Veh (s)	8.6	1.0	0.1	0.1	6.0	1.0
Total Stops	36	39	8	1	39	123
Stop/Veh	0.68	0.05	0.01	0.03	1.00	0.08
Travel Dist (mi)	2.6	35.9	47.8	2.1	1.6	90.0
Travel Time (hr)	0.3	1.6	2.1	0.1	0.2	4.2
Avg Speed (mph)	10	22	23	19	10	21
Fuel Used (gal)	0.1	1.8	2.5	0.1	0.0	4.6
Fuel Eff. (mpg)	23.7	19.6	19.2	26.2	36.4	19.8
HC Emissions (g)	1	32	39	1	0	73
CO Emissions (g)	26	1128	1484	31	6	2675
NOx Emissions (g)	3	104	136	4	1	247
Vehicles Entered	53	722	701	30	39	1545
Vehicles Exited	53	723	701	31	39	1547
Hourly Exit Rate	53	723	701	31	39	1547
Input Volume	55	717	686	28	36	1522
% of Volume	96	101	102	111	108	102
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Density (ft/veh)						560
Occupancy (veh)	0	2	2	0	0	4

# 105: Lyndale Ave & Southeast Access Performance by movement

Movement	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.2	0.0	0.2
Total Del/Veh (s)	2.6	1.7	0.6	1.4
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	2.6	0.2	0.0	0.3
Total Stops	28	1	0	29
Stop/Veh	1.00	0.00	0.00	0.05
Travel Dist (mi)	1.2	16.3	6.5	24.1
Travel Time (hr)	0.1	0.9	0.2	1.2
Avg Speed (mph)	15	18	30	20
Fuel Used (gal)	0.0	1.3	0.1	1.5
Fuel Eff. (mpg)	45.9	12.3	59.1	16.5
HC Emissions (g)	45.9	20	2	22
	-		38	
CO Emissions (g)	6	845		888
NOx Emissions (g)	0	73	4	78
Vehicles Entered	28	366	153	547
Vehicles Exited	28	366	152	546
Hourly Exit Rate	28	366	152	546
Input Volume	27	385	144	556
% of Volume	104	95	106	98
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0
Density (ft/veh)				1315
Occupancy (veh)	0	1	0	1

# 110: Lyndale Ave & Northeast Access Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All	
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Denied Del/Veh (s)	0.1	3.7	0.0	0.0	0.1	0.2	0.1	
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
Total Del/Veh (s)	7.1	2.9	2.9	0.3	0.2	0.2	0.6	
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Stop Del/Veh (s)	5.3	3.1	0.8	0.0	0.0	0.0	0.2	
Total Stops	21	4	4	0	0	0	29	
Stop/Veh	1.00	1.00	0.24	0.00	0.00	0.00	0.05	
Travel Dist (mi)	1.0	0.2	0.6	13.4	17.5	4.1	36.9	
Travel Time (hr)	0.1	0.0	0.0	0.4	0.5	0.2	1.2	
Avg Speed (mph)	12	15	16	32	34	27	30	
Fuel Used (gal)	0.0	0.0	0.0	0.8	0.5	0.1	1.4	
Fuel Eff. (mpg)	44.1	34.1	27.6	16.8	35.8	43.6	25.7	
HC Emissions (g)	0	0	0	16	8	1	26	
CO Emissions (g)	4	1	9	733	176	36	959	
NOx Emissions (g)	0	0	1	46	25	4	76	
Vehicles Entered	21	4	17	349	149	35	575	
Vehicles Exited	21	4	17	349	149	35	575	
Hourly Exit Rate	21	4	17	349	149	35	575	
Input Volume	21	4	21	364	140	33	582	
% of Volume	100	100	81	96	106	106	99	
Denied Entry Before	0	0	0	0	0	0	0	
Denied Entry After	0	0	0	0	0	0	0	
Density (ft/veh)							2057	
Occupancy (veh)	0	0	0	0	1	0	1	

# 824: Lyndale Ave & 98th St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.8	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	2.1	0.7	0.0	0.5	2.4	0.0	1.2	1.2	0.0	0.5	0.7	0.0
Total Del/Veh (s)	38.9	5.9	1.3	54.0	15.7	1.3	50.1	42.5	3.8	55.6	44.1	0.9
Stop Delay (hr)	1.9	0.6	0.0	0.4	1.8	0.0	1.1	1.1	0.0	0.5	0.6	0.0
Stop Del/Veh (s)	36.2	4.7	0.0	51.6	11.7	0.0	47.1	38.2	4.0	53.9	41.4	0.1
Total Stops	166	83	0	29	243	0	74	83	17	31	40	0
Stop/Veh	0.86	0.19	0.00	0.94	0.44	0.00	0.87	0.81	0.81	0.91	0.74	0.00
Travel Dist (mi)	11.7	26.9	4.4	7.3	128.5	16.4	8.8	10.7	2.2	1.2	1.8	2.0
Travel Time (hr)	2.5	1.5	0.2	0.7	6.2	0.5	1.5	1.5	0.1	0.6	0.7	0.1
Avg Speed (mph)	5	18	24	10	21	31	6	7	21	2	3	18
Fuel Used (gal)	0.7	0.9	0.1	0.3	4.1	0.4	0.5	0.6	0.1	0.1	0.2	0.0
Fuel Eff. (mpg)	16.1	28.4	59.8	23.3	31.6	40.9	16.3	18.5	31.4	8.2	9.4	43.6
HC Emissions (g)	6	15	1	4	49	6	3	4	2	1	1	0
CO Emissions (g)	157	407	37	103	1323	130	171	204	72	17	33	9
NOx Emissions (g)	13	43	2	11	155	17	10	11	6	1	3	1
Vehicles Entered	191	439	93	31	547	74	84	102	21	33	54	93
Vehicles Exited	191	439	93	31	550	74	84	101	21	33	54	93
Hourly Exit Rate	191	439	93	31	550	74	84	101	21	33	54	93
Input Volume	197	432	88	35	537	76	84	112	22	29	52	90
% of Volume	97	102	106	89	102	97	100	90	95	114	103	103
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	3	1	0	1	6	1	1	2	0	1	1	0

# 824: Lyndale Ave & 98th St Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	9.4
Total Del/Veh (s)	19.0
Stop Delay (hr)	8.1
Stop Del/Veh (s)	16.5
Total Stops	766
Stop/Veh	0.43
Travel Dist (mi)	222.0
Travel Time (hr)	16.1
Avg Speed (mph)	14
Fuel Used (gal)	8.1
Fuel Eff. (mpg)	27.4
HC Emissions (g)	92
CO Emissions (g)	2661
NOx Emissions (g)	273
Vehicles Entered	1762
Vehicles Exited	1764
Hourly Exit Rate	1764
Input Volume	1754
% of Volume	101
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	657
Occupancy (veh)	16

# 2823: 98th St & 35W West Ramps Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR	All	
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.4	
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.3	3.5	1.0	3.5	0.7	
Total Delay (hr)	3.2	0.1	0.8	0.7	1.5	0.7	1.9	0.4	0.1	9.4	
Total Del/Veh (s)	13.3	4.5	50.0	4.1	46.4	11.1	46.9	41.1	1.8	14.2	
Stop Delay (hr)	1.9	0.0	0.7	0.3	1.4	0.6	1.8	0.4	0.0	7.0	
Stop Del/Veh (s)	8.0	1.6	47.1	1.7	42.4	9.5	43.5	37.3	0.0	10.7	
Total Stops	344	16	54	119	101	171	129	30	1	965	
Stop/Veh	0.40	0.38	0.98	0.19	0.86	0.80	0.88	0.83	0.00	0.41	
Travel Dist (mi)	203.0	9.8	3.7	42.2	12.3	22.6	28.5	7.0	52.1	381.1	
Travel Time (hr)	9.0	0.4	0.9	1.9	2.0	1.6	3.1	0.7	2.2	21.7	
Avg Speed (mph)	22	27	4	22	6	15	10	11	27	18	
Fuel Used (gal)	7.5	0.3	0.3	1.3	0.8	0.8	1.3	0.3	1.4	14.0	
Fuel Eff. (mpg)	26.9	29.7	14.5	31.4	15.7	28.4	22.5	24.4	36.4	27.2	
HC Emissions (g)	104	3	1	19	9	9	11	3	15	174	
CO Emissions (g)	3355	123	28	557	275	311	285	72	377	5383	
NOx Emissions (g)	343	11	2	62	24	28	29	7	42	549	
Vehicles Entered	850	41	54	620	116	212	145	36	279	2353	
Vehicles Exited	851	41	54	618	116	212	145	36	281	2354	
Hourly Exit Rate	851	41	54	618	116	212	145	36	281	2354	
Input Volume	848	42	59	630	112	211	153	39	275	2370	
% of Volume	100	98	92	98	104	100	95	92	102	99	
Denied Entry Before	0	0	0	0	0	0	0	0	1	1	
Denied Entry After	0	0	0	0	0	0	0	0	0	0	
Density (ft/veh)										490	
Occupancy (veh)	9	0	1	2	2	2	3	1	2	21	

# 4824: 35W East Ramps & 98th St Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR	All	
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.3	
Denied Delay (III) Denied Del/Veh (s)	0.0	0.0	0.0	0.0	1.0	3.1	3.3	0.5	
( )	3.0	0.6	2.2	0.0	5.2	0.5	0.6	12.6	
Total Delay (hr)			13.3		48.8				
Total Del/Veh (s)	37.9	3.6		11.0		46.5	14.0	20.3	
Stop Delay (hr)	2.6	0.3	1.7	0.4	4.7	0.4	0.4	10.5	
Stop Del/Veh (s)	32.9	1.9	10.1	8.3	44.1	40.3	10.3	17.0	
Total Stops	231	93	220	61	337	33	63	1038	
Stop/Veh	0.81	0.15	0.37	0.39	0.87	0.87	0.41	0.46	
Travel Dist (mi)	21.6	45.8	29.2	7.8	67.9	6.7	24.6	203.6	
Travel Time (hr)	3.8	1.9	3.1	0.8	7.8	0.7	1.6	19.7	
Avg Speed (mph)	6	24	10	10	9	9	17	10	
Fuel Used (gal)	1.1	1.4	1.4	0.3	3.1	0.3	0.8	8.6	
Fuel Eff. (mpg)	18.9	32.6	20.2	24.1	21.6	21.6	29.2	23.6	
HC Emissions (g)	6	20	16	2	28	4	12	88	
CO Emissions (g)	157	485	494	61	723	88	301	2309	
NOx Emissions (g)	15	64	51	8	77	9	30	254	
Vehicles Entered	284	624	585	155	383	38	152	2221	
Vehicles Exited	283	624	585	155	382	38	151	2218	
Hourly Exit Rate	283	624	585	155	382	38	151	2218	
Input Volume	273	628	582	141	390	30	144	2188	
% of Volume	104	99	100	110	98	127	105	101	
Denied Entry Before	0	0	0	0	0	0	0	0	
Denied Entry After	0	0	0	0	0	0	0	0	
Density (ft/veh)					-			204	
Occupancy (veh)	4	2	3	1	8	1	1	19	

# **Total Zone Performance**

Denied Delay (hr)	0.8
Denied Del/Veh (s)	1.2
Total Delay (hr)	32.9
Total Del/Veh (s)	1742.2
Stop Delay (hr)	26.2
Stop Del/Veh (s)	1386.3
Total Stops	2950
Stop/Veh	43.38
Travel Dist (mi)	957.6
Travel Time (hr)	64.3
Avg Speed (mph)	15
Fuel Used (gal)	38.2
Fuel Eff. (mpg)	25.1
HC Emissions (g)	474
CO Emissions (g)	14875
NOx Emissions (g)	1477
Vehicles Entered	2296
Vehicles Exited	12
Hourly Exit Rate	12
Input Volume	8974
% of Volume	0
Denied Entry Before	1
Denied Entry After	0
Density (ft/veh)	495
Occupancy (veh)	63

#### Intersection: 100: 98th St & South Access

Movement	EB	EB	EB	WB	WB	SB
Directions Served	L	T	Т	Т	TR	R
Maximum Queue (ft)	65	33	16	12	36	68
Average Queue (ft)	24	2	1	0	2	25
95th Queue (ft)	58	20	12	6	16	56
Link Distance (ft)		202	202	266	266	212
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)	100					
Storage Blk Time (%)						
Queuing Penalty (veh)						

#### Intersection: 105: Lyndale Ave & Southeast Access

Movement	EB
Directions Served	R
Maximum Queue (ft)	52
Average Queue (ft)	16
95th Queue (ft)	40
Link Distance (ft)	231
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

#### Intersection: 110: Lyndale Ave & Northeast Access

Movement	EB	EB	NB	SB	
Directions Served	L	R	L	TR	_
Maximum Queue (ft)	59	30	43	4	
Average Queue (ft)	18	4	3	0	
95th Queue (ft)	46	23	21	3	
Link Distance (ft)	259			618	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		25	95		
Storage Blk Time (%)	3	0			
Queuing Penalty (veh)	0	0			

# Intersection: 824: Lyndale Ave & 98th St

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	T	T	L	L	T	Т	L	Т	Т	R
Maximum Queue (ft)	160	147	94	120	29	77	165	260	138	140	92	54
Average Queue (ft)	83	72	39	46	2	22	56	129	64	60	24	14
95th Queue (ft)	139	124	78	102	15	55	123	229	117	112	70	41
Link Distance (ft)	266	266	266	266			1227	1227		499	499	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)					150	150			100			550
Storage Blk Time (%)							0		5	3		
Queuing Penalty (veh)							0		3	2		

#### Intersection: 824: Lyndale Ave & 98th St

Movement	SB	SB	SB
Directions Served	L	T	Т
Maximum Queue (ft)	86	95	70
Average Queue (ft)	32	33	16
95th Queue (ft)	74	75	46
Link Distance (ft)	142	142	142
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

#### Intersection: 2823: 98th St & 35W West Ramps

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	Т	T	Т	R	L	T	T	Т	L	R	L	Т
Maximum Queue (ft)	398	208	192	58	116	171	144	100	183	165	213	95
Average Queue (ft)	115	91	83	12	46	45	30	21	76	57	103	29
95th Queue (ft)	281	173	160	39	96	127	97	69	153	123	191	74
Link Distance (ft)	1113	1113	1113			222	222	222	552	552		1034
Upstream Blk Time (%)						0	0					
Queuing Penalty (veh)						0	0					
Storage Bay Dist (ft)				250	175						270	
Storage Blk Time (%)						0					0	
Queuing Penalty (veh)						0					0	

#### Intersection: 2823: 98th St & 35W West Ramps

Movement	SB
Directions Served	R
Maximum Queue (ft)	26
Average Queue (ft)	1
95th Queue (ft)	19
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	270
Storage Blk Time (%)	
Queuing Penalty (veh)	

#### Intersection: 4824: 35W East Ramps & 98th St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	
Directions Served	L	Т	Т	T	T	TR	L	LTR	
Maximum Queue (ft)	349	140	182	116	201	271	296	366	
Average Queue (ft)	194	32	57	39	55	130	162	178	
95th Queue (ft)	316	97	138	90	140	240	255	309	
Link Distance (ft)	315	315	315	202	202	202	932		
Upstream Blk Time (%)	1				0	2			
Queuing Penalty (veh)	3				0	5			
Storage Bay Dist (ft)								400	
Storage Blk Time (%)							0	0	
Queuing Penalty (veh)							0	0	

#### Zone Summary

Zone wide Queuing Penalty: 14

# 100: 98th St & South Access Performance by movement

Movement	EBL	EBT	WBT	WBR	SBR	All	
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.0	
Total Delay (hr)	0.8	1.1	1.3	0.0	0.3	3.5	
Total Del/Veh (s)	28.8	3.3	3.8	3.1	13.0	4.8	
Stop Delay (hr)	0.7	0.7	0.0	0.0	0.3	1.8	
Stop Del/Veh (s)	26.8	2.2	0.1	0.2	12.4	2.5	
Total Stops	89	96	43	5	94	327	
Stop/Veh	0.94	0.08	0.04	0.11	1.00	0.12	
Travel Dist (mi)	4.6	59.8	79.1	2.9	3.8	150.2	
Travel Time (hr)	1.0	3.0	3.9	0.2	0.5	8.5	
Avg Speed (mph)	5	20	20	16	7	18	
Fuel Used (gal)	0.3	2.8	4.6	0.1	0.2	8.0	
Fuel Eff. (mpg)	16.1	21.5	17.0	23.1	22.6	18.8	
HC Emissions (g)	1	42	57	1	1	103	
CO Emissions (g)	48	1568	2356	42	30	4044	
NOx Emissions (g)	5	140	225	5	3	378	
Vehicles Entered	95	1212	1174	44	94	2619	
Vehicles Exited	93	1209	1177	44	93	2616	
Hourly Exit Rate	93	1209	1177	44	93	2616	
Input Volume	88	1232	1171	45	94	2630	
% of Volume	106	98	100	98	99	99	
Denied Entry Before	0	0	0	0	0	0	
Denied Entry After	0	0	0	0	0	0	
Density (ft/veh)						279	
Occupancy (veh)	1	3	4	0	1	9	

# 105: Lyndale Ave & Southeast Access Performance by movement

Movement	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0	0.0
Total Delay (hr)	0.2	0.2	0.3	0.7
Total Del/Veh (s)	11.1	1.9	1.6	2.2
Stop Delay (hr)	0.2	0.0	0.0	0.3
Stop Del/Veh (s)	11.0	0.2	0.2	0.8
Total Stops	62	1	13	76
Stop/Veh	0.98	0.00	0.02	0.06
Travel Dist (mi)	2.8	18.9	30.4	52.1
Travel Time (hr)	0.3	1.0	1.2	2.5
Avg Speed (mph)	8	19	25	21
Fuel Used (gal)	0.1	1.5	0.6	2.2
Fuel Eff. (mpg)	25.7	12.3	50.9	23.2
HC Emissions (g)	0	20	7	27
CO Emissions (g)	18	949	234	1201
NOx Emissions (g)	2	80	19	100
Vehicles Entered	62	413	710	1185
Vehicles Exited	63	413	710	1186
Hourly Exit Rate	63	413	710	1186
Input Volume	71	401	699	1172
% of Volume	89	103	102	101
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0
Density (ft/veh)				625
Occupancy (veh)	0	1	1	3

# 110: Lyndale Ave & Northeast Access Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All	
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
Denied Del/Veh (s)	0.2	4.1	0.0	0.0	0.2	0.3	0.2	
Total Delay (hr)	0.2	0.0	0.1	0.0	0.1	0.0	0.5	
Total Del/Veh (s)	15.6	4.8	7.4	0.3	0.7	0.6	1.5	
Stop Delay (hr)	0.2	0.0	0.1	0.0	0.0	0.0	0.3	
Stop Del/Veh (s)	13.5	5.0	5.6	0.0	0.0	0.0	8.0	
Total Stops	54	9	22	0	0	1	86	
Stop/Veh	1.00	1.00	0.63	0.00	0.00	0.02	0.07	
Travel Dist (mi)	2.6	0.5	1.3	14.4	82.3	6.5	107.7	
Travel Time (hr)	0.3	0.0	0.1	0.5	2.6	0.3	3.8	
Avg Speed (mph)	8	13	10	32	33	26	29	
Fuel Used (gal)	0.1	0.0	0.0	0.8	2.4	0.2	3.5	
Fuel Eff. (mpg)	25.5	28.3	28.4	18.4	34.6	39.9	30.9	
HC Emissions (g)	1	0	0	13	27	2	43	
CO Emissions (g)	20	3	9	644	890	73	1639	
NOx Emissions (g)	2	0	1	39	88	7	136	
Vehicles Entered	54	9	35	375	701	56	1230	
Vehicles Exited	54	9	34	374	701	55	1227	
Hourly Exit Rate	54	9	34	374	701	55	1227	
Input Volume	58	13	33	365	686	56	1211	
% of Volume	93	69	103	102	102	98	101	
Denied Entry Before	0	0	0	0	0	0	0	
Denied Entry After	0	0	0	0	0	0	0	
Density (ft/veh)							678	
Occupancy (veh)	0	0	0	0	3	0	4	

# 824: Lyndale Ave & 98th St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.5	0.2	0.2	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	2.0	3.3	0.1	1.4	5.8	0.0	2.1	2.8	0.2	2.3	3.8	0.1
Total Del/Veh (s)	39.3	14.4	1.8	59.8	27.3	1.2	52.5	50.8	9.5	47.9	48.8	1.1
Stop Delay (hr)	1.8	2.7	0.0	1.3	4.5	0.0	1.9	2.5	0.2	2.2	3.5	0.0
Stop Del/Veh (s)	36.8	11.8	0.0	55.9	21.0	0.0	48.1	45.7	9.4	45.6	44.9	0.1
Total Stops	144	268	1	77	443	0	129	174	58	138	233	0
Stop/Veh	0.80	0.32	0.00	0.93	0.57	0.00	0.91	0.87	0.91	0.79	0.83	0.00
Travel Dist (mi)	11.0	50.5	9.7	19.0	176.9	8.2	14.8	21.0	6.6	6.1	9.8	7.1
Travel Time (hr)	2.4	4.8	0.4	2.0	11.0	0.3	2.6	3.5	0.4	2.6	4.1	0.4
Avg Speed (mph)	5	11	22	10	16	32	6	6	16	2	2	18
Fuel Used (gal)	0.7	2.1	0.2	0.8	6.2	0.2	0.9	1.2	0.2	0.7	1.2	0.1
Fuel Eff. (mpg)	16.3	23.7	47.1	22.4	28.7	41.8	16.5	17.1	29.1	8.5	8.3	51.4
HC Emissions (g)	4	21	3	6	62	3	5	8	3	2	5	1
CO Emissions (g)	120	538	98	212	1876	73	223	382	139	67	143	26
NOx Emissions (g)	9	65	8	19	197	10	15	23	8	5	14	3
Vehicles Entered	180	826	203	81	754	37	141	200	63	172	282	323
Vehicles Exited	181	829	203	82	758	37	138	195	63	169	275	322
Hourly Exit Rate	181	829	203	82	758	37	138	195	63	169	275	322
Input Volume	175	846	211	85	750	35	143	191	61	172	278	323
% of Volume	103	98	96	96	101	106	97	102	103	98	99	100
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	2	5	0	2	11	0	3	3	0	3	4	0

# 824: Lyndale Ave & 98th St Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	24.0
Total Del/Veh (s)	26.2
Stop Delay (hr)	20.7
Stop Del/Veh (s)	22.6
Total Stops	1665
Stop/Veh	0.51
Travel Dist (mi)	340.6
Travel Time (hr)	34.5
Avg Speed (mph)	10
Fuel Used (gal)	14.6
Fuel Eff. (mpg)	23.3
HC Emissions (g)	123
CO Emissions (g)	3896
NOx Emissions (g)	377
Vehicles Entered	3262
Vehicles Exited	3252
Hourly Exit Rate	3252
Input Volume	3271
% of Volume	99
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	308
Occupancy (veh)	34

# 2823: 98th St & 35W West Ramps Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR	All	
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.4	
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.2	3.5	8.0	3.6	0.4	
Total Delay (hr)	10.2	0.5	1.8	0.4	1.1	0.9	1.6	8.0	0.1	17.5	
Total Del/Veh (s)	23.6	9.9	52.0	1.8	53.6	18.4	53.1	45.6	1.7	18.6	
Stop Delay (hr)	5.9	0.2	1.7	0.1	1.1	8.0	1.5	8.0	0.0	12.1	
Stop Del/Veh (s)	13.6	3.5	49.0	0.5	50.2	16.9	50.0	41.5	0.0	12.8	
Total Stops	845	89	128	59	71	145	93	53	0	1483	
Stop/Veh	0.54	0.46	1.01	0.07	0.92	0.81	0.88	0.79	0.00	0.44	
Travel Dist (mi)	363.0	45.3	8.5	59.6	8.1	19.1	20.3	13.0	41.8	578.7	
Travel Time (hr)	20.6	2.0	2.2	2.2	1.5	1.7	2.4	1.3	1.8	35.5	
Avg Speed (mph)	18	23	4	28	6	11	9	10	27	16	
Fuel Used (gal)	15.3	1.7	0.6	2.0	0.5	0.8	0.9	0.6	1.2	23.6	
Fuel Eff. (mpg)	23.7	26.7	13.4	30.3	14.8	24.4	21.5	23.5	34.8	24.5	
HC Emissions (g)	188	19	2	25	3	7	7	5	11	266	
CO Emissions (g)	6389	745	77	833	138	272	185	121	306	9068	
NOx Emissions (g)	650	69	7	84	11	23	18	13	31	906	
Vehicles Entered	1516	191	127	874	77	179	104	66	225	3359	
Vehicles Exited	1536	190	120	874	74	178	103	64	225	3364	
Hourly Exit Rate	1536	190	120	874	74	178	103	64	225	3364	
Input Volume	1520	187	132	884	80	185	105	72	236	3402	
% of Volume	101	102	91	99	92	96	98	89	95	99	
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	
Denied Entry After	0	0	0	0	0	0	0	0	0	0	
Density (ft/veh)										296	
Occupancy (veh)	21	2	2	2	1	2	2	1	2	35	

4824: 35W East Ramps & 98th St Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR	All	
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.3	
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	1.1	3.5	3.5	0.3	
Total Delay (hr)	2.8	0.7	4.2	0.7	3.5	0.3	0.6	12.8	
Total Del/Veh (s)	32.1	2.3	13.5	14.5	57.0	64.5	11.4	14.6	
Stop Delay (hr)	2.4	0.2	3.4	0.5	3.2	0.3	0.4	10.4	
Stop Del/Veh (s)	26.9	0.6	10.8	12.1	53.1	58.4	8.2	11.9	
Total Stops	249	58	331	62	205	18	56	979	
Stop/Veh	0.79	0.05	0.30	0.38	0.93	0.95	0.32	0.31	
Travel Dist (mi)	23.9	83.4	55.3	8.0	38.9	3.4	28.4	241.4	
Travel Time (hr)	3.7	3.2	5.9	1.0	5.0	0.5	1.7	20.8	
Avg Speed (mph)	7	26	9	8	8	8	19	12	
Fuel Used (gal)	1.2	3.1	3.0	0.4	1.9	0.2	1.0	10.7	
Fuel Eff. (mpg)	20.7	27.3	18.4	20.2	20.2	18.8	29.6	22.6	
HC Emissions (g)	5	40	27	4	13	1	12	101	
CO Emissions (g)	148	1220	1011	93	387	28	340	3227	
NOx Emissions (g)	14	143	95	12	35	2	34	335	
Vehicles Entered	315	1142	1109	161	220	19	176	3142	
Vehicles Exited	311	1138	1108	160	212	19	173	3121	
Hourly Exit Rate	311	1138	1108	160	212	19	173	3121	
Input Volume	320	1145	1113	152	219	20	178	3147	
% of Volume	97	99	100	105	97	95	97	99	
Denied Entry Before	0	0	0	0	0	0	0	0	
Denied Entry After	0	0	0	0	0	0	0	0	
Density (ft/veh)								193	
Occupancy (veh)	4	3	6	1	5	0	2	21	

# **Total Zone Performance**

Donied Dolay (hr)	0.8
Denied Delay (hr)	
Denied Del/Veh (s)	1.0
Total Delay (hr)	59.0
Total Del/Veh (s)	1516.8
Stop Delay (hr)	45.5
Stop Del/Veh (s)	1170.2
Total Stops	4616
Stop/Veh	32.97
Travel Dist (mi)	1470.7
Travel Time (hr)	105.7
Avg Speed (mph)	14
Fuel Used (gal)	62.6
Fuel Eff. (mpg)	23.5
HC Emissions (g)	663
CO Emissions (g)	23075
NOx Emissions (g)	2232
Vehicles Entered	2927
Vehicles Exited	16
Hourly Exit Rate	16
Input Volume	14832
% of Volume	0
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	300
Occupancy (veh)	105
Coouparioy (vori)	100

#### Intersection: 100: 98th St & South Access

Movement	EB	EB	EB	EB	WB	WB	SB
Directions Served	L	T	T	T	T	TR	R
Maximum Queue (ft)	124	123	27	29	14	45	98
Average Queue (ft)	55	11	1	1	1	3	44
95th Queue (ft)	104	64	16	14	8	23	82
Link Distance (ft)		202	202	202	266	266	212
Upstream Blk Time (%)		0					
Queuing Penalty (veh)		0					
Storage Bay Dist (ft)	100						
Storage Blk Time (%)	2	1					
Queuing Penalty (veh)	9	1					

#### Intersection: 105: Lyndale Ave & Southeast Access

Movement	EB	NB	NB	SB	SB	SB
Directions Served	R	T	T	T	T	T
Maximum Queue (ft)	91	10	6	60	98	51
Average Queue (ft)	29	0	0	5	5	2
95th Queue (ft)	59	5	5	29	41	29
Link Distance (ft)	231	142	142		159	159
Upstream Blk Time (%)					0	0
Queuing Penalty (veh)					0	0
Storage Bay Dist (ft)				1		
Storage Blk Time (%)				0	0	
Queuing Penalty (veh)				0	0	

#### Intersection: 110: Lyndale Ave & Northeast Access

Movement	EB	EB	NB	SB	
Directions Served	L	R	L	TR	_
Maximum Queue (ft)	74	47	72	14	
Average Queue (ft)	33	11	19	1	
95th Queue (ft)	64	39	54	9	
Link Distance (ft)	259			618	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		25	95		
Storage Blk Time (%)	17	1	0		
Queuing Penalty (veh)	2	1	0		

# Intersection: 824: Lyndale Ave & 98th St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	Т	T	R	L	L	Т	Т	L	T	T
Maximum Queue (ft)	134	126	213	243	104	75	173	348	399	159	237	147
Average Queue (ft)	72	62	111	125	4	15	58	151	200	105	111	75
95th Queue (ft)	119	109	195	213	55	53	125	265	320	162	183	133
Link Distance (ft)	266	266	266	266				1227	1227		499	499
Upstream Blk Time (%)			0	0	0							
Queuing Penalty (veh)			0	0	0							
Storage Bay Dist (ft)					230	150	150			100		
Storage Blk Time (%)				0			0	8		17	15	
Queuing Penalty (veh)				1			0	7		16	21	

#### Intersection: 824: Lyndale Ave & 98th St

Movement	NB	SB	SB	SB
Directions Served	R	L	Т	Т
Maximum Queue (ft)	71	199	209	171
Average Queue (ft)	32	126	127	101
95th Queue (ft)	60	202	192	161
Link Distance (ft)		142	142	142
Upstream Blk Time (%)		11	8	3
Queuing Penalty (veh)		21	15	5
Storage Bay Dist (ft)	550			
Storage Blk Time (%)				
Queuing Penalty (veh)				

#### Intersection: 2823: 98th St & 35W West Ramps

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Movement	ED	ED	EB	ED	VVD	VVD	VVD	VVD	IND	IND	SB	SD
Directions Served	Т	T	T	R	L	T	T	T	L	R	L	T
Maximum Queue (ft)	972	1009	795	214	192	215	112	75	129	152	175	141
Average Queue (ft)	266	314	181	45	103	31	13	11	60	65	87	55
95th Queue (ft)	591	688	482	121	163	120	51	45	120	126	155	116
Link Distance (ft)	1113	1113	1113			222	222	222	552	552		1034
Upstream Blk Time (%)	0	0	0		0	0						
Queuing Penalty (veh)	0	0	0		0	1						
Storage Bay Dist (ft)				250	175						270	
Storage Blk Time (%)			1		1	1						
Queuing Penalty (veh)			3		3	1						

# Intersection: 4824: 35W East Ramps & 98th St

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	L	T	Т	T	T	TR	L	LTR
Maximum Queue (ft)	379	62	191	186	222	263	247	299
Average Queue (ft)	201	12	39	82	99	148	113	134
95th Queue (ft)	321	44	120	153	194	245	195	255
Link Distance (ft)	315	315	315	202	202	202	932	
Upstream Blk Time (%)	1			0	0	3		
Queuing Penalty (veh)	6			1	2	15		
Storage Bay Dist (ft)								400
Storage Blk Time (%)								
Queuing Penalty (veh)								

#### Zone Summary

Zone wide Queuing Penalty: 131

2024 Build Condition	ns - AM Peak Hour		Easth	ound App	roach	Weeth	ound Ap	proach	Northb	ound Ap	proach	South	oound Ap	proach	Intersection
Traffic Control	Intersection	MOE	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	Total
Traffic Signal	98th Street & I-35W SB Offramp/ Dupont Avenue	Movement Delay (sec/veh)  Movement LOS  Movement 95th Queue (ft)  Approach Delay (sec/veh)  Approach LOS	0.0 A 0	13.1 B 172 12.7 B	4.9 A 39	51.8 D 109	4.0 A 101 7.9 A	0.0 A 0	50.8 D 154	0.0 A 0 24.5 C	9.4 A 93	47.6 D 203	38.6 D 66 20.0 B	1.9 A 21	14.3 B
Traffic Control	Intersection	MOE	Eastb	ound App	roach	Westb	ound Ap	proach	Northb	ound Ap	proach	South	oound Ap	proach	Intersection
Traffic Signal	98th Street & I-35W NB Ramps	Movement Delay (sec/veh)  Movement LOS  Movement 95th Queue (ft)  Approach Delay (sec/veh)  Approach LOS	37.5 D 288	2.9 A 96 13.1 B	0.0 A 0	0.0 A 0	11.9 B 138 11.5 B	9.7 A 212	NBL 47.6 D 274	51.2 D 299 38.9	NBR 14.2 B 299	0.0 A 0	0.0 A 0 0.0 A	0.0 A 0	Total 19.0 B
Traffic Control	Intersection	MOE		ound App			ound Ap			ound Ap			oound Ap	_	Intersection
Through/Stop	98th Street & South Access	Movement Delay (sec/veh) Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS	11.0 B 72	2.1 A 26 2.9 A	0.0 A 0	0.0 A 0	2.8 A 12 2.8 A	2.0 A 12	0.0 A 0	0.0 A 0 0.0 A	0.0 A 0	0.0 A 0	0.0 A 0 6.3 A	6.3 A 54	Total 2.9 A
Traffic Control	Intersection	MOE	Eastb	ound App	roach EBR	Westb WBL	ound Ap WBT	proach WBR	Northb NBL	ound Ap	proach NBR	South! SBL	oound Ap	proach SBR	Intersection Total
Traffic Signal	98th Street & Lyndale Avenue	Movement Delay (sec/veh) Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS	39.1 D 134	6.4 A 90 14.9 B	1.3 A 0	57.3 E 37	15.3 B 180 15.8 B	1.3 A 0	50.7 D 119	44.7 D 106 42.9 D	4.5 A 42	56.1 E 78	45.4 D 66 24.8 C	0.8 A 0	19.7 B
Traffic Control	Intersection	MOE		ound App			ound Ap			ound Ap			ound Ap	_	Intersection
Through/Stop	Lyndale Avenue & Southeast Access	Movement Delay (sec/veh) Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS	0.0 A 0	0.0 A 0 2.7 A	2.7 A 40	0.0 A 0	0.0 A 0 0.0 A	0.0 A 0	0.0 A 0	1.7 A 2 1.7 A	0.0 A 0	0.0 A 0	0.6 A 0 0.6 A	0.0 A 0	Total 1.5 A
Traffic Control	Intersection	MOE	Eastb	ound App		Westb WBL	ound Ap		Northb NBL	ound Ap	proach NBR		oound Ap		Intersection Total
Through/Stop	Lyndale Avenue & Northeast Access	Movement Delay (sec/veh)  Movement LOS  Movement 95th Queue (ft)  Approach Delay (sec/veh)  Approach LOS	6.8 A 45	0.0 A 0 6.2 A	3.1 A 28	0.0 A 0	0.0 A 0 0.0 A	0.0 A 0	2.7 A 24	0.3 A 0 0.4 A	0.0 A 0	0.0 A 0	0.4 A 3 0.4 A	0.4 A 3	0.7 A
2024 Build Condition	ns - PM Peak Hour														
Traffic Control  Traffic Signal	98th Street & I-35W SB Offramp/ Dupont Avenue	MOE  Movement Delay (sec/veh)  Movement LOS  Movement 95th Queue (ft)  Approach Delay (sec/veh)  Approach LOS	EBL 0.0 A 0	EBT 23.6 C 502 22.1 C	EBR 10.0 A 137	WBL 53.0 D 168	ound Ap WBT 1.8 A 88 8.4 A	0.0 A 0	NBL 52.9 D 123	0.0 A 0 28.4 C	NBR 18.2 B 131	50.11 50.2 D 162	SBT 44.4 D 118 21.0	SBR 1.7 A 0	Intersection Total 18.3 B
Traffic Control	Intersection	MOE		ound App			ound Ap			ound Ap			ound Ap		Intersection
Traffic Signal	98th Street & I-35W NB Ramps	Movement Delay (sec/veh) Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS	31.2 C 308	2.5 A 76 8.3 A	0.0 A 0	0.0 A 0	15.4 B 213 15.4 B	15.6 B 254	NBL 54.3 D 224	59.5 E 260 36.5 D	NBR 11.6 B 260	0.0 A 0	0.0 A 0 0.0 A	0.0 A 0	<b>Total</b> 15.0 B
Traffic Control	Intersection	MOE	Eastb	ound App	roach EBR	Westb WBL	ound Ap WBT	proach WBR	Northb NBL	ound Ap	proach NBR	South! SBL	oound Ap	proach SBR	Intersection Total
Through/Stop	98th Street & South Access	Movement Delay (sec/veh) Movement LOS Movement 95th Queue (ft) Approach Delay (sec/veh) Approach LOS	29.4 D 110	3.7 A 35 5.7 A	0.0 A 0	0.0 A 0	4.1 A 32 4.1 A	3.6 A 36	0.0 A 0	0.0 A 0 0.0 A	0.0 A 0	0.0 A 0	0.0 A 0 18.2	18.2 C 113	5.5 A
Traffic Control	Intersection	MOE	Eastb	ound App EBT	roach EBR	Westb WBL	ound Ap WBT	proach WBR	Northb NBL	ound Ap NBT	proach NBR	South! SBL	oound Ap	proach SBR	Intersection Total
Traffic Signal	98th Street & Lyndale Avenue	Movement Delay (sec/veh)  Movement LOS  Movement 95th Queue (ft)  Approach Delay (sec/veh)  Approach LOS	40.3 D 115	16.7 B 230 17.3 B	2.0 A 109	59.7 E 99	29.3 C 303 31.1 C	1.2 A 0	51.2 D 166	54.2 D 177 45.7 D	8.4 A 59	48.1 D 204	49.2 D 176 29.3 C	1.0 A 0	27.3 C
Traffic Control	Intersection	MOE	Eastb	ound App	roach EBR	Westb WBL	ound Ap WBT	proach WBR	Northb NBL	ound Ap	proach NBR	South! SBL	oound Ap	proach SBR	Intersection Total
Through/Stop	Lyndale Avenue & Southeast Access	Movement Delay (sec/veh)  Movement LOS  Movement 95th Queue (ft)  Approach Delay (sec/veh)  Approach LOS	0.0 A 0	0.0 A 0 10.3 B	10.3 B 69	0.0 A 0	0.0 A 0 0.0 A	0.0 A 0	0.0 A 0	1.9 A 0 1.9	0.0 A 0	0.0 A 0	1.4 A 24 1.4 A	0.0 A 0	2.2 A
T	lutaria di		Eastb	ound App	roach_	Westb	ound Ap	proach_	Northb	ound Ap	proach_	South	oound Ap	proach	Intersection
Traffic Control  Through/Stop	Lyndale Avenue & Northeast Access	MOE  Movement Delay (sec/veh)  Movement LOS  Movement 95th Queue (ft)  Approach Delay (sec/veh)  Approach LOS	20.5 C 81	0.0 A 0 18.2	6.1 A 47	0.0 A 0	0.0 A 0 0.0 A	0.0 A 0	7.3 A 48	0.3 A 0 1.0 A	0.0 A 0	0.0 A 0	0.8 A 6 0.8 A	0.6 A 6	Total 2.1 A

# 100: 98th St & South Access Performance by movement

Movement	EBL	EBT	WBT	WBR	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.1	0.0
Total Delay (hr)	0.2	0.4	0.6	0.0	0.1	1.3
Total Del/Veh (s)	11.0	2.1	2.8	2.0	6.3	3.0
Stop Delay (hr)	0.2	0.2	0.0	0.0	0.1	0.5
Stop Del/Veh (s)	8.7	0.9	0.1	0.1	5.9	1.0
Total Stops	47	32	6	1	50	136
Stop/Veh	0.66	0.05	0.01	0.03	1.00	0.09
Travel Dist (mi)	3.5	35.1	47.9	2.4	2.0	90.9
Travel Time (hr)	0.4	1.5	2.1	0.1	0.2	4.3
Avg Speed (mph)	10	23	23	18	10	21
Fuel Used (gal)	0.1	1.7	2.5	0.1	0.1	4.5
Fuel Eff. (mpg)	23.8	20.3	19.3	25.0	36.1	20.2
HC Emissions (g)	2	29	37	3	0	70
CO Emissions (g)	41	1032	1428	59	8	2568
NOx Emissions (g)	5	95	130	8	1	239
Vehicles Entered	71	707	703	35	50	1566
Vehicles Exited	71	707	702	35	50	1565
Hourly Exit Rate	71	707	702	35	50	1565
Input Volume	72	717	686	36	48	1559
% of Volume	99	99	102	97	104	100
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Density (ft/veh)						551
Occupancy (veh)	0	2	2	0	0	4

# 105: Lyndale Ave & Southeast Access Performance by movement

Movement	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0	0.0
Total Delay (hr)	0.0	0.2	0.0	0.2
Total Del/Veh (s)	2.7	1.7	0.6	1.5
Stop Delay (hr)	0.0	0.0	0.0	0.0
Stop Del/Veh (s)	2.7	0.2	0.0	0.3
Total Stops	34	1	0	35
Stop/Veh	1.00	0.00	0.00	0.06
Travel Dist (mi)	1.5	17.4	5.9	24.9
Travel Time (hr)	0.1	1.0	0.2	1.3
Avg Speed (mph)	14	18	30	20
Fuel Used (gal)	0.0	1.4	0.1	1.6
Fuel Eff. (mpg)	43.6	12.3	51.6	15.9
HC Emissions (g)	0	20	2	22
CO Emissions (g)	9	890	50	949
NOx Emissions (g)	1	76	5	81
Vehicles Entered	34	390	139	563
Vehicles Exited	34	391	139	564
Hourly Exit Rate	34	391	139	564
Input Volume	36	391	145	572
% of Volume	94	100	96	99
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0
Density (ft/veh)				1250
Occupancy (veh)	0	1	0	1

# 110: Lyndale Ave & Northeast Access Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All	
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Denied Del/Veh (s)	0.1	4.2	0.0	0.0	0.1	0.2	0.1	
Total Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
Total Del/Veh (s)	6.8	3.1	2.7	0.3	0.4	0.4	0.7	
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Stop Del/Veh (s)	4.9	3.4	0.8	0.0	0.0	0.0	0.3	
Total Stops	25	5	4	0	0	0	34	
Stop/Veh	1.00	1.00	0.18	0.00	0.00	0.00	0.06	
Travel Dist (mi)	1.2	0.2	8.0	14.1	15.7	6.1	38.3	
Travel Time (hr)	0.1	0.0	0.1	0.4	0.5	0.2	1.3	
Avg Speed (mph)	12	15	16	32	34	27	29	
Fuel Used (gal)	0.0	0.0	0.0	0.8	0.4	0.1	1.5	
Fuel Eff. (mpg)	39.9	34.1	28.6	17.0	35.2	41.5	25.6	
HC Emissions (g)	0	0	0	16	6	2	25	
CO Emissions (g)	5	1	8	760	149	59	983	
NOx Emissions (g)	1	0	1	47	20	5	75	
Vehicles Entered	25	5	22	368	134	52	606	
Vehicles Exited	25	5	22	368	134	52	606	
Hourly Exit Rate	25	5	22	368	134	52	606	
Input Volume	28	5	27	364	140	44	608	
% of Volume	89	100	81	101	96	118	100	
Denied Entry Before	0	0	0	0	0	0	0	
Denied Entry After	0	0	0	0	0	0	0	
Density (ft/veh)							1921	
Occupancy (veh)	0	0	0	0	0	0	1	

# 824: Lyndale Ave & 98th St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.7	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	2.1	8.0	0.0	0.6	2.4	0.0	1.2	1.4	0.0	0.5	0.7	0.0
Total Del/Veh (s)	39.1	6.4	1.3	57.3	15.3	1.3	50.7	44.7	4.5	56.1	45.4	0.8
Stop Delay (hr)	2.0	0.6	0.0	0.5	1.8	0.0	1.1	1.3	0.0	0.5	0.6	0.0
Stop Del/Veh (s)	36.4	5.2	0.0	55.0	11.3	0.0	47.5	40.3	4.6	54.5	42.6	0.1
Total Stops	171	86	0	34	242	0	77	95	19	32	42	0
Stop/Veh	0.86	0.20	0.00	0.97	0.43	0.00	0.89	0.84	0.83	0.97	0.81	0.00
Travel Dist (mi)	12.0	26.1	4.0	8.2	131.9	17.7	9.1	11.8	2.4	1.2	1.8	1.9
Travel Time (hr)	2.6	1.5	0.2	0.8	6.2	0.6	1.5	1.8	0.1	0.6	0.7	0.1
Avg Speed (mph)	5	17	24	10	21	31	6	7	20	2	2	18
Fuel Used (gal)	0.8	0.9	0.1	0.4	4.2	0.4	0.6	0.6	0.1	0.1	0.2	0.0
Fuel Eff. (mpg)	16.0	28.4	61.6	23.3	31.4	40.5	16.3	18.2	31.0	8.0	9.1	42.0
HC Emissions (g)	5	13	1	3	53	5	4	6	2	1	1	0
CO Emissions (g)	145	363	37	96	1412	130	176	261	59	18	31	10
NOx Emissions (g)	12	39	3	9	166	17	11	16	4	1	3	1
Vehicles Entered	197	426	84	35	562	80	87	113	23	33	52	88
Vehicles Exited	196	427	84	35	561	80	87	113	23	33	51	88
Hourly Exit Rate	196	427	84	35	561	80	87	113	23	33	51	88
Input Volume	197	432	88	35	543	80	86	114	22	36	55	90
% of Volume	99	99	95	100	103	100	101	99	105	92	93	98
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	3	2	0	1	6	1	2	2	0	1	1	0

# 824: Lyndale Ave & 98th St Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	9.8
Total Del/Veh (s)	19.7
Stop Delay (hr)	8.5
Stop Del/Veh (s)	17.1
Total Stops	798
Stop/Veh	0.45
Travel Dist (mi)	228.1
Travel Time (hr)	16.8
Avg Speed (mph)	14
Fuel Used (gal)	8.4
Fuel Eff. (mpg)	27.1
HC Emissions (g)	94
CO Emissions (g)	2739
NOx Emissions (g)	281
Vehicles Entered	1780
Vehicles Exited	1778
Hourly Exit Rate	1778
Input Volume	1778
% of Volume	100
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	632
Occupancy (veh)	17

# 2823: 98th St & 35W West Ramps Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR	All	
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3	0.4	
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.2	3.5	0.9	3.5	0.7	
Total Delay (hr)	3.1	0.1	0.8	0.7	1.7	0.5	2.0	0.4	0.1	9.5	
Total Del/Veh (s)	13.1	4.9	51.8	4.0	50.8	9.4	47.6	38.6	1.9	14.3	
Stop Delay (hr)	1.9	0.0	0.8	0.3	1.5	0.4	1.9	0.4	0.0	7.2	
Stop Del/Veh (s)	7.9	1.9	48.9	1.7	46.8	7.8	44.0	35.2	0.0	10.9	
Total Stops	334	16	57	121	101	162	137	28	2	958	
Stop/Veh	0.39	0.40	0.98	0.19	0.86	0.80	0.89	0.72	0.01	0.40	
Travel Dist (mi)	199.8	9.5	3.8	43.4	12.3	21.6	29.9	7.5	50.5	378.3	
Travel Time (hr)	8.8	0.4	1.0	2.0	2.1	1.4	3.3	0.7	2.2	21.8	
Avg Speed (mph)	23	26	4	22	6	16	10	11	27	18	
Fuel Used (gal)	7.4	0.3	0.3	1.4	0.8	0.7	1.3	0.3	1.4	14.0	
Fuel Eff. (mpg)	27.1	29.8	14.0	30.9	14.9	29.1	22.4	25.2	35.9	27.1	
HC Emissions (g)	108	8	2	20	7	8	15	4	17	189	
CO Emissions (g)	3339	202	43	583	247	277	352	92	420	5554	
NOx Emissions (g)	351	23	4	65	22	24	38	10	47	583	
Vehicles Entered	836	40	57	637	116	202	152	39	272	2351	
Vehicles Exited	833	40	57	637	116	203	152	38	272	2348	
Hourly Exit Rate	833	40	57	637	116	203	152	38	272	2348	
Input Volume	857	42	59	636	112	211	157	39	275	2389	
% of Volume	97	95	97	100	104	96	97	97	99	98	
Denied Entry Before	0	0	0	0	0	0	1	0	0	1	
Denied Entry After	0	0	0	0	0	0	0	0	0	0	
Density (ft/veh)										489	
Occupancy (veh)	9	0	1	2	2	1	3	1	2	21	

# 4824: 35W East Ramps & 98th St Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR	All	
								0.3	
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.1		
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	1.0	3.4	3.3	0.4	
Total Delay (hr)	2.8	0.5	2.0	0.4	5.0	0.4	0.6	11.7	
Total Del/Veh (s)	37.5	2.9	11.9	9.7	47.6	51.2	14.2	19.0	
Stop Delay (hr)	2.4	0.3	1.5	0.3	4.5	0.4	0.4	9.8	
Stop Del/Veh (s)	32.8	1.5	8.9	7.2	42.8	45.2	10.4	15.9	
Total Stops	209	81	198	51	335	26	63	963	
Stop/Veh	0.79	0.13	0.32	0.34	0.89	0.90	0.43	0.43	
Travel Dist (mi)	20.0	46.4	30.1	7.5	66.6	5.2	23.7	199.4	
Travel Time (hr)	3.5	1.8	2.9	0.7	7.5	0.6	1.5	18.6	
Avg Speed (mph)	6	25	10	10	9	9	17	11	
Fuel Used (gal)	1.0	1.4	1.5	0.3	3.0	0.2	0.8	8.3	
Fuel Eff. (mpg)	19.2	33.6	20.2	24.1	21.8	21.3	28.9	23.9	
HC Emissions (g)	6	18	15	2	29	3	11	84	
CO Emissions (g)	149	439	498	66	716	64	286	2219	
NOx Emissions (g)	14	58	52	8	75	7	29	243	
Vehicles Entered	263	632	604	149	374	29	146	2197	
Vehicles Exited	262	633	606	150	375	29	146	2201	
Hourly Exit Rate	262	633	606	150	375	29	146	2201	
Input Volume	273	642	591	144	390	30	148	2218	
% of Volume	96	99	102	104	96	97	99	99	
Denied Entry Before	0	0	0	0	0	0	0	0	
Denied Entry After	0	0	0	0	0	0	0	0	
Density (ft/veh)	U	U	U	U	U	U	U	216	
Occupancy (veh)	3	2	3	1	7	1	1	18	
Occupancy (ven)	3	2	3	I	1	I	ı	10	

# **Total Zone Performance**

		I
Denied Delay (hr)	0.8	
Denied Del/Veh (s)	1.2	
Total Delay (hr)	32.6	
Total Del/Veh (s)	1504.1	
Stop Delay (hr)	26.0	
Stop Del/Veh (s)	1199.7	
Total Stops	2924	
Stop/Veh	37.49	
Travel Dist (mi)	959.9	
Travel Time (hr)	64.1	
Avg Speed (mph)	15	
Fuel Used (gal)	38.3	
Fuel Eff. (mpg)	25.1	
HC Emissions (g)	484	
CO Emissions (g)	15013	
NOx Emissions (g)	1502	
Vehicles Entered	2313	
Vehicles Exited	14	
Hourly Exit Rate	14	
Input Volume	9124	
% of Volume	0	
Denied Entry Before	1	
Denied Entry After	0	
Density (ft/veh)	497	
Occupancy (veh)	63	

## Intersection: 100: 98th St & South Access

Movement	EB	EB	WB	WB	SB
Directions Served	L	T	Т	TR	R
Maximum Queue (ft)	89	45	10	26	67
Average Queue (ft)	31	3	1	1	29
95th Queue (ft)	72	26	11	12	54
Link Distance (ft)		202	266	266	212
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)	100				
Storage Blk Time (%)	0	0			
Queuing Penalty (veh)	1	0			

## Intersection: 105: Lyndale Ave & Southeast Access

Mayamant	EB	ND	NB	ND
Movement	EB	NB	INB	NB
Directions Served	R	Τ	Τ	Т
Maximum Queue (ft)	43	6	14	12
Average Queue (ft)	18	0	0	0
95th Queue (ft)	40	0	6	0
Link Distance (ft)	231	142	142	142
Upstream Blk Time (%)				
Queuing Penalty (veh)				
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

## Intersection: 110: Lyndale Ave & Northeast Access

Movement	EB	EB	NB	SB	
Directions Served	L	R	L	TR	
Maximum Queue (ft)	52	38	44	4	
Average Queue (ft)	17	6	4	0	
95th Queue (ft)	45	28	24	3	
Link Distance (ft)	259			618	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		25	95		
Storage Blk Time (%)	3	0			
Queuing Penalty (veh)	0	0			

## Intersection: 824: Lyndale Ave & 98th St

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB	NB
Directions Served	L	L	Т	T	L	L	Т	Т	L	Т	T	R
Maximum Queue (ft)	160	140	99	105	26	76	152	277	138	131	108	46
Average Queue (ft)	86	73	38	46	3	23	61	129	67	66	34	16
95th Queue (ft)	142	125	80	99	17	57	126	234	119	119	92	42
Link Distance (ft)	266	266	266	266			1227	1227		499	499	
Upstream Blk Time (%)												
Queuing Penalty (veh)												
Storage Bay Dist (ft)					150	150			100			550
Storage Blk Time (%)							0		7	4		
Queuing Penalty (veh)							0		4	4		

## Intersection: 824: Lyndale Ave & 98th St

Movement	SB	SB	SB
Directions Served	L	T	T
Maximum Queue (ft)	97	97	78
Average Queue (ft)	33	34	17
95th Queue (ft)	78	79	52
Link Distance (ft)	142	142	142
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

## Intersection: 2823: 98th St & 35W West Ramps

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	Т	Т	T	R	L	Т	T	T	L	R	L	T
Maximum Queue (ft)	256	192	162	51	132	184	194	107	177	112	259	88
Average Queue (ft)	108	92	76	12	51	47	31	20	81	49	107	27
95th Queue (ft)	204	170	142	39	109	131	102	69	154	93	203	66
Link Distance (ft)	1113	1113	1113			222	222	222	552	552		1034
Upstream Blk Time (%)							0					
Queuing Penalty (veh)							0					
Storage Bay Dist (ft)				250	175						270	
Storage Blk Time (%)					0	0					0	
Queuing Penalty (veh)					1	0					1	

## Intersection: 2823: 98th St & 35W West Ramps

Movement	SB
Directions Served	R
Maximum Queue (ft)	28
Average Queue (ft)	1
95th Queue (ft)	21
Link Distance (ft)	
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	270
Storage Blk Time (%)	
Queuing Penalty (veh)	

## Intersection: 4824: 35W East Ramps & 98th St

Movement	EB	EB	EB	WB	WB	WB	NB	NB	
Directions Served	L	Т	T	Т	T	TR	L	LTR	
Maximum Queue (ft)	329	98	121	104	171	262	288	344	
Average Queue (ft)	175	32	48	36	48	107	158	176	
95th Queue (ft)	288	82	110	83	119	212	248	299	
Link Distance (ft)	315	315	315	202	202	202	932		
Upstream Blk Time (%)	1			0	0	1			
Queuing Penalty (veh)	2			0	0	3			
Storage Bay Dist (ft)								400	
Storage Blk Time (%)								0	
Queuing Penalty (veh)								1	

## Zone Summary

Zone wide Queuing Penalty: 17

## 100: 98th St & South Access Performance by movement

Movement	EBL	EBT	WBT	WBR	SBR	All
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.6	0.0
Total Delay (hr)	0.9	1.3	1.3	0.1	0.6	4.1
Total Del/Veh (s)	29.4	3.7	4.1	3.6	18.2	5.6
Stop Delay (hr)	0.8	0.8	0.1	0.0	0.6	2.3
Stop Del/Veh (s)	27.2	2.5	0.2	0.3	17.7	3.1
Total Stops	105	99	59	6	119	388
Stop/Veh	0.99	0.08	0.05	0.09	0.98	0.14
Travel Dist (mi)	5.2	60.6	78.2	4.4	4.9	153.3
Travel Time (hr)	1.1	3.1	3.9	0.3	0.9	9.3
Avg Speed (mph)	5	19	20	16	6	16
Fuel Used (gal)	0.3	2.8	4.6	0.2	0.3	8.2
Fuel Eff. (mpg)	15.5	21.4	17.1	22.6	17.9	18.7
HC Emissions (g)	1	35	55	2	1	94
CO Emissions (g)	54	1483	2282	55	37	3911
NOx Emissions (g)	6	125	218	7	4	360
Vehicles Entered	106	1227	1162	66	121	2682
Vehicles Exited	106	1225	1163	66	122	2682
Hourly Exit Rate	106	1225	1163	66	122	2682
Input Volume	114	1232	1171	58	117	2692
% of Volume	93	99	99	114	104	100
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0
Density (ft/veh)						255
Occupancy (veh)	1	3	4	0	1	9

## 105: Lyndale Ave & Southeast Access Performance by movement

Movement	EBR	NBT	SBT	All
Denied Delay (hr)	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.1	0.0	0.0	0.0
Total Delay (hr)	0.3	0.2	0.3	0.7
Total Del/Veh (s)	10.3	1.9	1.4	2.3
Stop Delay (hr)	0.2	0.0	0.0	0.3
Stop Del/Veh (s)	9.9	0.2	0.1	0.9
Total Stops	89	0	7	96
Stop/Veh	1.00	0.00	0.01	0.08
Travel Dist (mi)	4.0	17.7	29.7	51.4
Travel Time (hr)	0.5	0.9	1.1	2.5
Avg Speed (mph)	9	19	26	20
Fuel Used (gal)	0.2	1.5	0.6	2.2
Fuel Eff. (mpg)	26.1	12.1	48.4	23.1
HC Emissions (g)	1	19	7	27
CO Emissions (g)	39	874	258	1171
NOx Emissions (g)	4	75	21	100
Vehicles Entered	89	388	695	1172
Vehicles Exited	89	388	694	1171
Hourly Exit Rate	89	388	694	1171
Input Volume	88	410	701	1200
% of Volume	101	95	99	98
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0
Density (ft/veh)				620
Occupancy (veh)	0	1	1	3

## 110: Lyndale Ave & Northeast Access Performance by movement

Movement	EBL	EBR	NBL	NBT	SBT	SBR	All	
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
Denied Del/Veh (s)	0.2	3.9	0.0	0.0	0.2	0.3	0.2	
Total Delay (hr)	0.4	0.0	0.1	0.0	0.2	0.0	0.7	
Total Del/Veh (s)	20.5	6.1	7.3	0.3	8.0	0.6	2.2	
Stop Delay (hr)	0.4	0.0	0.1	0.0	0.0	0.0	0.5	
Stop Del/Veh (s)	18.4	5.8	5.4	0.0	0.0	0.0	1.4	
Total Stops	75	14	26	0	0	1	116	
Stop/Veh	0.99	1.00	0.68	0.00	0.00	0.01	0.09	
Travel Dist (mi)	3.7	0.7	1.4	13.3	79.9	8.6	107.6	
Travel Time (hr)	0.6	0.1	0.1	0.4	2.5	0.3	4.1	
Avg Speed (mph)	6	12	10	32	33	26	27	
Fuel Used (gal)	0.2	0.0	0.0	0.7	2.3	0.2	3.6	
Fuel Eff. (mpg)	19.7	23.6	29.7	17.8	34.1	41.1	30.2	
HC Emissions (g)	1	0	0	12	29	3	45	
CO Emissions (g)	33	6	8	616	942	88	1693	
NOx Emissions (g)	3	1	1	37	91	8	141	
Vehicles Entered	75	14	38	345	680	74	1226	
Vehicles Exited	75	14	38	343	681	74	1225	
Hourly Exit Rate	75	14	38	343	681	74	1225	
Input Volume	72	15	42	365	686	72	1252	
% of Volume	104	93	90	94	99	103	98	
Denied Entry Before	0	0	0	0	0	0	0	
Denied Entry After	0	0	0	0	0	0	0	
Density (ft/veh)							632	
Occupancy (veh)	1	0	0	0	2	0	4	

## 824: Lyndale Ave & 98th St Performance by movement

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Denied Delay (hr)	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Denied Del/Veh (s)	0.0	0.0	0.0	2.6	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (hr)	1.9	3.9	0.1	1.5	6.3	0.0	2.1	2.8	0.1	2.5	3.9	0.1
Total Del/Veh (s)	40.3	16.7	2.0	59.7	29.3	1.2	51.2	54.2	8.4	48.1	49.2	1.0
Stop Delay (hr)	1.8	3.2	0.0	1.4	4.9	0.0	1.9	2.5	0.1	2.4	3.5	0.0
Stop Del/Veh (s)	37.8	13.6	0.1	55.6	22.8	0.0	46.9	48.9	8.3	45.8	45.3	0.1
Total Stops	140	301	3	83	466	0	128	170	53	145	240	0
Stop/Veh	0.81	0.36	0.01	0.94	0.61	0.00	0.86	0.92	0.84	0.78	0.85	0.00
Travel Dist (mi)	10.5	51.0	10.6	20.0	176.7	8.0	15.4	19.2	6.5	6.6	9.8	7.0
Travel Time (hr)	2.3	5.4	0.5	2.2	11.4	0.3	2.7	3.3	0.4	2.8	4.2	0.4
Avg Speed (mph)	4	10	22	10	16	31	6	6	16	2	2	18
Fuel Used (gal)	0.7	2.3	0.2	0.9	6.2	0.2	0.9	1.2	0.2	0.8	1.2	0.2
Fuel Eff. (mpg)	15.8	22.5	44.9	22.2	28.4	41.0	16.6	16.5	28.7	8.4	8.3	46.3
HC Emissions (g)	2	17	2	5	52	2	5	8	2	3	6	2
CO Emissions (g)	100	488	93	197	1696	47	235	350	124	80	159	39
NOx Emissions (g)	7	55	7	16	172	6	15	22	5	7	16	5
Vehicles Entered	171	833	221	85	752	36	147	183	63	185	281	320
Vehicles Exited	172	837	222	86	763	36	145	179	62	182	278	320
Hourly Exit Rate	172	837	222	86	763	36	145	179	62	182	278	320
Input Volume	175	846	211	85	760	41	146	194	61	185	284	323
% of Volume	98	99	105	101	100	88	99	92	102	98	98	99
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0	0	0	0	0	0	0
Density (ft/veh)												
Occupancy (veh)	2	5	0	2	11	0	3	3	0	3	4	0

## 824: Lyndale Ave & 98th St Performance by movement

Movement	All
Denied Delay (hr)	0.1
Denied Del/Veh (s)	0.1
Total Delay (hr)	25.1
Total Del/Veh (s)	27.3
Stop Delay (hr)	21.8
Stop Del/Veh (s)	23.6
Total Stops	1729
Stop/Veh	0.52
Travel Dist (mi)	341.3
Travel Time (hr)	35.8
Avg Speed (mph)	10
Fuel Used (gal)	14.9
Fuel Eff. (mpg)	22.9
HC Emissions (g)	105
CO Emissions (g)	3606
NOx Emissions (g)	333
Vehicles Entered	3277
Vehicles Exited	3282
Hourly Exit Rate	3282
Input Volume	3312
% of Volume	99
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	297
Occupancy (veh)	36

## 2823: 98th St & 35W West Ramps Performance by movement

Movement	EBT	EBR	WBL	WBT	NBL	NBR	SBL	SBT	SBR	All	
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.4	
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	0.2	0.2	3.4	0.9	3.6	0.4	
Total Delay (hr)	10.0	0.5	2.0	0.5	1.1	0.9	1.5	0.9	0.1	17.6	
Total Del/Veh (s)	23.6	10.0	53.0	1.8	52.9	18.2	50.2	44.4	1.7	18.4	
Stop Delay (hr)	5.8	0.2	1.8	0.1	1.1	0.9	1.4	8.0	0.0	12.1	
Stop Del/Veh (s)	13.6	3.8	49.9	0.5	49.5	16.7	47.1	40.4	0.0	12.7	
Total Stops	793	92	134	59	70	150	95	55	0	1448	
Stop/Veh	0.52	0.48	1.01	0.07	0.90	0.80	0.86	0.76	0.00	0.42	
Travel Dist (mi)	355.1	44.7	8.9	61.2	8.2	19.8	21.3	14.0	46.6	579.7	
Travel Time (hr)	20.3	2.0	2.3	2.2	1.5	1.7	2.4	1.4	2.0	35.7	
Avg Speed (mph)	18	23	4	27	6	11	9	10	27	16	
Fuel Used (gal)	15.0	1.7	0.7	2.1	0.5	0.8	1.0	0.6	1.3	23.7	
Fuel Eff. (mpg)	23.6	26.7	13.2	29.6	14.9	24.2	22.1	23.6	35.3	24.5	
HC Emissions (g)	168	20	2	25	4	9	5	4	15	252	
CO Emissions (g)	6031	762	86	869	147	304	172	110	375	8854	
NOx Emissions (g)	601	71	8	85	12	27	15	10	41	871	
Vehicles Entered	1486	189	133	898	77	186	109	71	251	3400	
Vehicles Exited	1504	187	128	898	74	184	107	70	251	3403	
Hourly Exit Rate	1504	187	128	898	74	184	107	70	251	3403	
Input Volume	1534	187	132	896	80	185	111	72	236	3433	
% of Volume	98	100	97	100	92	99	96	97	106	99	
Denied Entry Before	0	0	0	0	0	0	0	0	0	0	
Denied Entry After	0	0	0	0	0	0	0	0	0	0	
Density (ft/veh)										295	
Occupancy (veh)	20	2	2	2	1	2	2	1	2	35	

## 4824: 35W East Ramps & 98th St Performance by movement

Movement	EBL	EBT	WBT	WBR	NBL	NBT	NBR	All	
Denied Delay (hr)	0.0	0.0	0.0	0.0	0.1	0.0	0.2	0.3	
Denied Del/Veh (s)	0.0	0.0	0.0	0.0	1.1	3.6	3.5	0.3	
Total Delay (hr)	2.5	0.8	4.8	0.7	3.5	0.3	0.6	13.3	
Total Del/Veh (s)	31.2	2.5	15.4	15.6	54.3	59.5	11.6	15.0	
Stop Delay (hr)	2.1	0.2	3.9	0.6	3.2	0.3	0.4	10.8	
Stop Del/Veh (s)	26.3	0.6	12.5	13.2	50.4	54.2	8.4	12.2	
Total Stops	232	61	375	61	207	18	56	1010	
Stop/Veh	0.79	0.05	0.33	0.37	0.90	0.95	0.31	0.32	
Travel Dist (mi)	22.3	84.6	55.9	8.2	40.5	3.4	29.5	244.3	
Travel Time (hr)	3.3	3.3	6.5	1.1	5.0	0.4	1.8	21.4	
Avg Speed (mph)	7	26	9	8	8	8	18	12	
Fuel Used (gal)	1.1	3.1	3.3	0.4	2.0	0.2	1.0	11.0	
Fuel Eff. (mpg)	21.1	27.1	17.1	19.2	20.4	20.1	29.8	22.2	
HC Emissions (g)	4	37	28	2	13	1	6	92	
CO Emissions (g)	140	1185	1073	80	395	30	249	3153	
NOx Emissions (g)	14	136	100	10	37	3	20	319	
Vehicles Entered	294	1155	1121	163	229	19	181	3162	
Vehicles Exited	289	1154	1123	164	221	19	181	3151	
Hourly Exit Rate	289	1154	1123	164	221	19	181	3151	
Input Volume	320	1164	1130	158	219	20	184	3195	
% of Volume	90	99	99	104	101	95	98	99	
Denied Entry Before	0	0	0	0	0	0	0	0	
Denied Entry After	0	0	0	0	0	0	0	0	
Density (ft/veh)								187	
Occupancy (veh)	3	3	7	1	5	0	2	21	

## **Total Zone Performance**

Danied Delay (hr)	0.0
Denied Delay (hr)	0.9
Denied Del/Veh (s)	1.0
Total Delay (hr)	61.6
Total Del/Veh (s)	1789.0
Stop Delay (hr)	47.7
Stop Del/Veh (s)	1385.6
Total Stops	4787
Stop/Veh	38.60
Travel Dist (mi)	1477.8
Travel Time (hr)	108.8
Avg Speed (mph)	14
Fuel Used (gal)	63.7
Fuel Eff. (mpg)	23.2
HC Emissions (g)	615
CO Emissions (g)	22388
NOx Emissions (g)	2124
Vehicles Entered	3057
Vehicles Exited	18
	18
Hourly Exit Rate	
Input Volume	15083
% of Volume	0
Denied Entry Before	0
Denied Entry After	0
Density (ft/veh)	291
Occupancy (veh)	108

## Intersection: 100: 98th St & South Access

Movement	EB	EB	EB	EB	WB	WB	WB	SB	
Directions Served	L	T	Т	Т	T	Т	TR	R	
Maximum Queue (ft)	128	136	6	24	4	72	82	135	
Average Queue (ft)	58	16	0	1	0	6	5	56	
95th Queue (ft)	110	82	4	18	3	57	36	113	
Link Distance (ft)		202	202	202	266	266	266	212	
Upstream Blk Time (%)		0				0		1	
Queuing Penalty (veh)		0				0		0	
Storage Bay Dist (ft)	100								
Storage Blk Time (%)	2	1							
Queuing Penalty (veh)	9	1							

## Intersection: 105: Lyndale Ave & Southeast Access

Movement	EB	SB	SB
Directions Served	R	T	Т
Maximum Queue (ft)	100	47	55
Average Queue (ft)	37	3	3
95th Queue (ft)	69	22	25
Link Distance (ft)	231		159
Upstream Blk Time (%)			
Queuing Penalty (veh)			
Storage Bay Dist (ft)		1	
Storage Blk Time (%)		0	
Queuing Penalty (veh)		0	

## Intersection: 110: Lyndale Ave & Northeast Access

Movement	EB	EB	NB	SB	
Directions Served	L	R	L	TR	
Maximum Queue (ft)	96	50	54	13	
Average Queue (ft)	44	15	19	1	
95th Queue (ft)	81	47	48	6	
Link Distance (ft)	259			618	
Upstream Blk Time (%)					
Queuing Penalty (veh)					
Storage Bay Dist (ft)		25	95		
Storage Blk Time (%)	26	2			
Queuing Penalty (veh)	4	1			

## Intersection: 824: Lyndale Ave & 98th St

Movement	EB	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	NB
Directions Served	L	L	Т	Т	R	L	L	T	T	L	Т	T
Maximum Queue (ft)	153	120	248	266	160	107	215	341	362	159	233	194
Average Queue (ft)	70	60	124	136	13	16	62	164	207	106	115	77
95th Queue (ft)	122	108	222	238	109	61	137	277	328	166	196	157
Link Distance (ft)	266	266	266	266				1227	1227		499	499
Upstream Blk Time (%)			0	0	0							
Queuing Penalty (veh)			1	1	0							
Storage Bay Dist (ft)					230	150	150			100		
Storage Blk Time (%)				1			0	10		18	16	
Queuing Penalty (veh)				2			0	8		17	24	

## Intersection: 824: Lyndale Ave & 98th St

Movement	NB	SB	SB	SB	
Directions Served	R	L	T	T	
Maximum Queue (ft)	74	202	193	152	
Average Queue (ft)	30	133	130	109	
95th Queue (ft)	59	204	191	161	
Link Distance (ft)		142	142	142	
Upstream Blk Time (%)		13	7	2	
Queuing Penalty (veh)		26	14	4	
Storage Bay Dist (ft)	550				
Storage Blk Time (%)					
Queuing Penalty (veh)					

## Intersection: 2823: 98th St & 35W West Ramps

Movement	EB	EB	EB	EB	WB	WB	WB	WB	NB	NB	SB	SB
Directions Served	T	Т	Т	R	L	T	Т	Т	L	R	L	T
Maximum Queue (ft)	825	857	837	251	172	218	134	65	168	174	203	142
Average Queue (ft)	235	265	170	49	107	40	17	8	59	68	87	54
95th Queue (ft)	501	519	486	137	168	152	76	37	123	131	162	118
Link Distance (ft)	1113	1113	1113			222	222	222	552	552		1034
Upstream Blk Time (%)	0	0	0		0	0	0					
Queuing Penalty (veh)	0	0	0		0	1	0					
Storage Bay Dist (ft)				250	175						270	
Storage Blk Time (%)			1		2	1						
Queuing Penalty (veh)			3		5	1						

## Intersection: 4824: 35W East Ramps & 98th St

Movement	EB	EB	EB	WB	WB	WB	NB	NB
Directions Served	L	Т	Т	T	Т	TR	L	LTR
Maximum Queue (ft)	341	61	154	225	226	268	215	304
Average Queue (ft)	190	12	41	97	109	160	113	138
95th Queue (ft)	308	41	111	181	205	254	187	260
Link Distance (ft)	315	315	315	202	202	202	932	
Upstream Blk Time (%)	1			0	1	5		
Queuing Penalty (veh)	5			2	2	20		
Storage Bay Dist (ft)								400
Storage Blk Time (%)								
Queuing Penalty (veh)								

## Zone Summary

Zone wide Queuing Penalty: 152



September 27, 2021

Michael Centinario, Planner City of Bloomington 1800 West Old Shakopee Rd Bloomington, MN 55431

SUBJECT: Clover Center

MnDOT Review #S21-058

NW Quad I-35W & West 98<sup>th</sup> St (CSAH 1/West Old Shakopee Rd)

Control Section: 2785

City of Bloomington, Hennepin County

Dear Michael Centinario:

Thank you for submitting documents for the Clover Center redevelopment referenced above. The Minnesota Department of Transportation (MnDOT) has reviewed these documents and has the following comments:

#### Coordination with I-35W Resurfacing

The proponent should be aware of and coordinate work with MnDOT's upcoming project to resurface I-35W from 76<sup>th</sup> St to 106<sup>th</sup> St (State Project #2782-352) in state fiscal year 2023.

Please be in touch with Andrew Lutaya, Area Engineer, at <u>Andrew.Lutaya@state.mn.us</u> or 651-234-7563 with related questions.

#### **Traffic**

The actual existing conditions at the northbound I-35W ramp and at the 98<sup>th</sup> St intersection at the southwest corner of the site differ from the modelled existing conditions that are presented in the traffic study. The free right turn was removed and a new right turn lane has been constructed for Metro Transit's new Orange Line bus rapid transit vehicles. The traffic study should be corrected to reflect this.

Please contact Eric Lauer-Hunt, West Area Traffic Safety, at 651-234-7353 or <u>Eric.Lauer-Hunt@state.mn.us</u> with related questions.

## Pedestrian and Bicycle Facilities

Figure 9 in the traffic study does not include recent improvements made at the east ramps of I-35W. As noted under the "Traffic" comment above, the channelized free-right has been removed and replaced with a standard right turn lane. This intersection adjustment has also shifted the location of the east leg crosswalk across 98<sup>th</sup> St further to the east. The taper for the left turn lane into the site's south access should not begin until after the new crosswalk.

MnDOT supports the improvements made at the south access driveway along 98<sup>th</sup> St. These will help improve the safety of pedestrians walking along 98<sup>th</sup> St. The proponent should ensure that the new channeling and raised median include the necessary features to be ADA compliant and that the exit stop sign is placed prior to the pedestrian crossing to so that motorists will see the requirement to yield to

pedestrians. Also, the proponent should consider placing <u>R10-15M</u> signs at the south access entrance to alert turning drivers to their responsibility to stop for pedestrians traveling along the sidewalk.

Bicycle parking near all building entries is encouraged. MnDOT also recommends that direct and convenient internal sidewalks connecting the public sidewalks and crosswalks on 98<sup>th</sup> St and Lyndale Ave be included and shown on future plans.

Please contact Jesse Thornsen, Pedestrian and Bicycle Planning, at 651-234-7788 or Jesse. Thornsen@state.mn.us with related questions.

#### Right-of-Way

Any work on MnDOT right-of-way will require an applicable permit(s). Permit information is available online at: <a href="https://dotapp7.dot.state.mn.us/OLPA">https://dotapp7.dot.state.mn.us/OLPA</a>. Please contact Doug Nelson, Metro Right of Way, at 651-234-7583 or Douglas. Nelson@state.mn.us with related questions.

#### **Contaminated Materials**

The project site is a known contaminated site that is on the active <u>Superfund Program list</u> (MPCA #SR0001389, site ID #20166) due to <u>prior dry cleaning operations on the property</u>. In 2015, a site investigation identified tetrachloroethylene (PCE) and trichloroethylene (TCE) present in the soil gas.

Because a drainage permit to MnDOT's system will be required (see Water Resources comment below), an updated Response Action Plan (RAP) should be submitted to MnDOT's Contaminated Materials Management Team. An RAP is also required in cases where MnDOT would be acquiring right-of-way easements or temporary orders, or where excavation would be on MnDOT's existing right-of-way.

Please be in touch with Michelle Waters, Environmental Investigation Unit Supervisor, MnDOT Office of Environmental Stewardship at Michelle. Waters@state.mn.us or 612-720-9720 for related questions.

#### Water Resources

MnDOT does not agree with the existing condition models for ground surfaces presented in the stormwater management plan as being 100% impervious. There are actually some pervious areas within these drainage areas. Because the current stormwater model is based on the incorrect assumption that 100% of the surface area is impervious and shows that future drainage conditions would be only slightly less than existing conditions, these calculations should be revisited and revised to reflect the actual conditions.

Also, a large underground stormwater storage and infiltration facility is proposed to meet stormwater requirements. The feasibility of using infiltration on this site in light of its Superfund status (see Contaminated Materials comment above) needs to be investigated and approved by the MnDOT Office of Environmental Stewardship Contaminated Materials Management Team before MnDOT is able to process a drainage permit.

A MnDOT drainage permit subject to the standard conditions will be required to ensure that current drainage rates to MnDOT right-of-way will not be increased. The drainage permit application, including the information below, should be submitted online to: https://dotapp7.dot.state.mn.us/OLPA

The following information must be submitted with the drainage permit application:

- 1) A grading plan showing existing and proposed contours.
- 2) Drainage area maps for the proposed project showing existing and proposed drainage areas. Any off-site areas that drain to the project area should also be included in the drainage area maps. The direction of flow for each drainage area must be indicated by arrows.
- 3) Drainage computations for pre and post construction conditions during the 2-, 10-, 50- and 100-year rain events.
- 4) Time of concentration calculations.
- 5) An electronic copy of any computer modeling used for the drainage computations.
- 6) See also the attached Drainage Permits Checklist for more information.

Once a drainage permit application is submitted, a thorough review will be completed and additional information may be requested. Please direct questions concerning drainage issues to Jason Swenson (651-234-7539) or <u>Jason.Swenson@state.mn.us</u>.

#### **Permits**

Any work that affects MnDOT right-of-way will require an applicable permit. All permits are available and should be submitted at: <a href="https://olpa.dot.state.mn.us/OLPA/">https://olpa.dot.state.mn.us/OLPA/</a>.

For questions about permit submittals and requirements, please contact Buck Craig of MnDOT's Metro District Permits Section at 651-775-0405 (cell) or Buck.Craig@state.mn.us.

#### Review Submittal Options

MnDOT's goal is to complete reviews within 30 calendar days. Review materials received electronically can be processed more rapidly. Do not submit files via a cloud service or SharePoint link. In order of preference, review materials may be submitted as:

- 1. Email documents and plans in PDF format to <a href="metrodevreviews.dot@state.mn.us">metrodevreviews.dot@state.mn.us</a>. Attachments may not exceed 20 megabytes per email. Documents can be zipped as well. If multiple emails are necessary, number each message.
- 2. For files over 20 megabytes, upload the PDF file(s) to MnDOT's web transfer client site at: <a href="https://mft.dot.state.mn.us">https://mft.dot.state.mn.us</a>. Contact MnDOT Planning development review staff using the same email above for uploading instructions, and send an email listing the file name(s) after the document(s) has/have been uploaded.
- 3. A flash drive or hard copy can be sent to the address below. Please notify development review staff via the above email if this submittal method is used.

MnDOT Metro District Planning Section Development Reviews Coordinator 1500 West County Road B-2 Roseville, MN 55113 You are welcome to contact me at (651) 234-7795 or <u>David.Elvin@state.mn.us</u> with any questions.

Sincerely,

David Elvin, AICP Principal Planner

#### Copy via email:

Jason Swenson, Water Resources Buck Craig, Permits Doug Nelson, Right of Way Eric Lauer-Hunt, Traffic Jason Junge, Transit Aaron Tag, Area Engineer Andrew Lutaya, Area Engineer Michelle Waters, OES Mackenzie Turner Barger, Ped/Bike Jesse Thornsen, Ped/Bike
Lance Schowalter, Design
David Elvin, Planning
Cameron Muhic, Planning
David Kratz, Planning
Tod Sherman, Planning
Russell Owen, Metropolitan Council
Jennifer Haas, MPCA

#### Centinario, Michael

From: Jason D Gottfried <Jason.Gottfried@hennepin.us>

Sent: Thursday, September 23, 2021 10:31 AM

**To:** Centinario, Michael

**Cc:** Ashley Morello; Hansen, Brian; Roberts, Kirk; Melquist, Jeremy

Subject: RE: [External] Clover Center - Partial Redevelopment

Hello Mike, et al,

Thank you for the opportunity to review and comment. It was helpful to have a preliminary teams mtg as well to discuss initial thoughts on the site plan and 98<sup>th</sup> St in general in more detail. I want to follow-up with our preliminary thoughts for further consideration before we deliver our more formal comment letter on this plat:

- First off, we appreciate the significant private investment proposed with reconstruction of the sidewalk and addition of boulevard separation along 98<sup>th</sup> St. This will be of great benefit to pedestrians and all users, critical to supporting the pending Orange Line BRT investment and overall area.
  - Our preferred dimensions would be 10' wide boulevard (back of curb) and 6' sidewalk or similar dimensions as feasible. Please ensure boulevard is on the outside of the sidewalk as a buffer between pedestrians and the roadway
  - o Please ensure driveway ramps up to sidewalk to ensure a level walkway with a E-W cut-through in the porkchop
  - o Ensure any and all curb ramps are ADA compliant
  - o We support the internal sidewalk connections within the site as well, providing multimodal options for users
- While our first preference would be to close the median along 98<sup>th</sup> St outright as a proactive safety measure (lefts across three lanes is ill-advised even if significant crash history does not exist), we recognize the significant disruption to other tenants and likely lacks support at this time
  - o If median closure is not supported by city at this time, we will need to coordinate mitigation to include a raised porkchop island at the entrance and tightening of median along CSAH 1 (as proposed in traffic study).
  - o As with any access, if crashes increase or other safety and/or operational issues emerge, the county reserves the right to make modifications including closure of a median at any time We support adding storage to the EB left-turn lane as well as feasible. This will need all be formally reviewed by county staff in detail prior to permitting
  - o We will need to work with the city/applicant to modify site plan to reduce conflicts at access entry. Mainly we want to limit thru E-W traffic in the internal drive aisle closest to 98<sup>th</sup> St. This limited setback may result in spillback onto 98<sup>th</sup> St if not mitigated
  - Truck turning movements incompatible with proposed median/signage. Please either refine design or more preferably direct truck exit traffic to Lyndale as feasible (coordinate with city)
  - o Deliveries should be limited to off-peak times to minimize disruption to overall site
- We understand the city has obtained funding for an I-35W / 98<sup>th</sup> St interchange study. We look forward to partnership with the city in this endeavor looking for additional ways to enhance safety, pedestrian connectivity and overall operations of the roadway(s)
  - o We anticipate among other recommendations, this study may provide further guidance on the future of site access(es) along this segment of 98<sup>th</sup> St

- o We are open to further consider of the potential removal of the SB free-right at Lyndale. If recommended by the study, this may provide additional opportunities for further future modifications of 98<sup>th</sup> with remnant space to be determined
- We support the proposed removal of the retaining wall along 98<sup>th</sup> St with the grading plan. This offers additional benefits to the pedestrian realm
- Our staff review of the stormwater report confirms compliance with county's stormwater ordinance
- We look forward to additional review and discussion if/when future phases of redevelopment of the site emerge. This may provide additional opportunities for public improvements consistent with the city's small area plans

We will work to paraphrase these comments in our formal comment letter, and attempt to expedite the final version to the city (hopefully by Tuesday Oct 5<sup>th</sup>). Otherwise, let these emailed comments serve as our feedback in the mean time. Please let us know if you prefer any modifications to the language, or want to discuss in more detail.

Thanks!

Jason

## Jason Gottfried

Transportation Planner Transportation Planning

Office: 612-596-0394 Cell: 612-719-8073

jason.gottfried@hennepin.us Hennepin County Public Works 1600 Prairie Drive Medina, MN 55340 (working remotely)

From: Centinario, Michael < mcentinario@BloomingtonMN.gov >

Sent: Friday, September 10, 2021 1:55 PM

**To:** Jason D Gottfried < <u>Jason.Gottfried@hennepin.us</u>> **Subject:** [External] Clover Center - Partial Redevelopment

Good afternoon Jason,

We received another significant development application, this time for a partial redevelopment of the Clover Center strip mall at 98<sup>th</sup> and Lyndale. Below is a link to the application materials. You'll see a draft traffic study as one of the documents.

https://permits.bloomingtonmn.gov/ProdPortal/Planning/Status?planningId=2548

Please let me know if you have questions. We should schedule a meeting to discuss the Southtown and Clover Center developments. I'll follow up with our Engineering team to see if they'd prefer to coordinate the meeting.

Have a great weekend,



# Development Review Committee Approved Minutes

Development Application, #PL202100191 Mtg Date: 9/21/2021 WebEx Meeting Bloomington Civic Plaza 1800 West Old Shakopee Road

#### **Staff Present:**

Brian Hansen (Engineering, Chair) 952-563-4543 Kris Kaiser (Fire Prev) 952-563-8968 Laura McCarthy (Fire Prev) 952-563-8965 Kate Ebert (Public Health) 952-563-4962 Bernadette Gillespie (Bldg & Insp) 952-563-4709 Tim Kampa (Utilities) 952-563-8776 Megan Rogers (Legal) 952-563-4889 Maureen O'Brien (Legal) 952-563-4881 Bruce Bunker (Engineering) 952-563-4546 Sue Hults Sellnow (Engineering) 952-563-4628 Jas on Heitzinger (Assessing) 952-563-4512 Jen Blumers (Assessing) 952-563-8706 Erik Solie (Env Health) 952-563-8978 Julie Farnham, (Planning) 952-563-4739 Londell Pease (Planning) 952-563-8926 Michael Centinario (Planning) 952-563-8921 Glen Markegard (Planning) 952-563-8923 Mike Hiller (Planning) 952-563-4507 Julie Long (Engineering) 952-563-4865

Jason Schmidt (Community Dev) 952-563-8922

**Project Information:** 

Project Clover Center Partial Redevelopment - Rezoning, PDP/FDP, plat, plat variance, 9728

Lyndale Ave.

Site Address 9728 LYNDALE AVE S, BLOOMINGTON, MN 55420

Plat Name

Project Description Rezoning 9728 Lyndale Avenue S. to apply the planned development (PD) overlay zoning

district, preliminary development plan for a multi-phased redevelopment of the Clover Center shopper center, final development plan for a partial redevelopment of the clover center and construct a 24,000 grocery store with site modifications, preliminary and final

plat to convert the metes and bounds legal description to lot and block status

Application Type Rezoning

Preliminary Development Plan Final Development Plan

Staff Contact Mike Centinario mcentinario@BloomingtonMN.gov Applicant Contact Tim Marco tim.marco@krausanderson.com

PC (tentative)
October 14, 2021
CC (tentative)
November 15, 2021

NOTE: All documents and minutes related to this case can be viewed at www.blm.mn/plcase, enter the permit number,

"PL202100191" into the search box.

#### **Guests Present:**

Name	Email
Tim Marco, Kraus-Anderson	tim.marco@krausanderson.com
Dan Mossey, Kraus-Anderson	dan.mossey@krausanderson.com
Jason Scrimshaw, Kimley-Horn	Jason.Scrims haw@kimley-horn.com
Bill Wittrock, RSP Architects	bill.wittrock@rsparch.com
Zach Kern, RSP Architects	zach.kern@rsparch.com
Dale Woodbeck, Lakewinds Co-Ops	DaleW@lakewinds.com
Chuck Levin, Charles Levin Architects	chuck@clevin.com

#### **Introduction (Centinario):**

The applicant has submitted applications for preliminary and final development plan approval for a partial redevelopment of Clover Center. The application also entails rezoning the site to apply the planned development (PD) overlay zoning district. The project would construct a new 24,000 square foot grocery store along with improvements to sidewalks, parking lot, and landscaping. A preliminary development plan would be established to set the stage for future redevelopment.

#### **Discussion/Comments:**

# <u>Please review the comment summary and plans for mark-up comments as</u> all the comments are not discussed at the meeting.

- Renae Clark (Park and Recreation):
  - No comments
- Jason Heitzinger (Assessing):
  - o No comments at this time since there is no replatting.
  - O However, there is likely to be replatting in the future which may trigger a park dedication.
- Erik Solie (Environmental Health):
  - The City is a delegated agricultural representative for the state regulation program, so if the development does include a grocery store, this will come to the Environmental Health office for review. More comments will be provided once the full tenant layout is known.
- Bernadette Gillespie (Building and Inspection):
  - o Comments provided are general until the point of plan review for the actual structure.
  - o Must meet the Minnesota state building code, accessibility code, provide a detailed code analysis with a plan.
  - SAC review by Met Council will be required.
  - o Plans will need to be signed by a licensed architect.
  - O Schedule a pre-permit meeting with Building and Inspection at 80% plan set to go over the conditions for approval from council, and to discuss any building code items for which the applicant needs clarification from Staff.
- Laura McCarthy (Fire Prevention):
  - o No comments other than what is included on the Comment Summary document.
- Brian Hansen (Engineering) provided the Public Works comments and noted the following:
  - Development area is located within the Nine Mile Creek Watershed District (NMCWD). Therefore, along with the Bloomington surface water requirements, a permit from NMCWD will be required for the project.
  - O The City is interested in exploring the possibility of providing additional stormwater management onsite beyond the project requirements. There may be some funds available through the watershed district to engage in those activities. If applicant is interested in doing that as part the project, contact water resources staff to continue conversation.
  - O Identify on Plans the clear view triangles (15' from property corner to driveway approaches). Comments made both in the traffic study and from Staff about some issues with clear view triangles, specifically at the Lyndale Ave driveway. Staff wants to ensure that as this project moves forward these areas are open to traffic for the purposes of safety and ingress / egress from the site.
  - o In the northeast driveway, Staff requests the plan show two (2) outbound lanes for both the rightand left-turners to improve egress from the site.
  - Traffic study identified, and Staff reiterated the need for internal wayfinding on the site to direct people around and through the parking lot.
  - Requires ROW dedication along Lyndale Ave as part of replatting process. Staff can discuss this in more detail with the applicants.

- Tim Kampa (Utilities):
  - Ensure there is a hydrant within 50' of the fire department connection (FDC) and that a fire truck has full access to that hydrant.
  - Use 8" watermain for the loop rather than 6" as shown on the plans. Past experience indicates that a 6" main doesn't carry enough flow.
  - Included in the documents & images the standard email providing an example of the detail staff is looking for as it relates to the external grease interceptor, and requests the applicant paste this into drawings.
    - Work with B&I and Utilities Staff when ready to select a grease interceptor, to ensure appropriate sizing and approval. Staff needs to approve the design of the unit prior to it being ordered.
  - The City will be bringing in a new 8" water service across 98th Street at Aldrich Ave. Coordinate work with Bloomington to connect the water system loop with the new 8" water service. The purpose is to help with a concept of "super blocking" the area, to get better water coverage for the entire area, not just a specific project.
- Kate Ebert (Public Health):
  - No comments
- Megan Rogers (Legal):
  - No comments
- Mike Centinario (Planning):
  - Additional information is needed regarding the wood-look and black architectural panels.
     Interpreted as a fiber cement panel which it is considered a *secondary* material and is limited to 15% on each elevation.
  - B-4 zoning district has specific requirements on elevations. For example, on the west elevation there are transparency requirements which is 25% of the elevation and current plans show very little transparency. There are some alternative pathways for compliance outlined in the comment summary. Essentially if there isn't going to be transparency due to the fact that this sits "back of house" or some other impediment, there are some other architectural embellishments which can be utilized.
  - On the north portion of west elevation plans show mix of brick and CMU. A flat faced CMU isn't permitted. A rock-faced CMU is another secondary material. Further off-line discussion is needed.
  - On re-face of the existing building, plans indicate painting the brick which is not permitted. Some options are to replace the brick completely, or utilize metal panels or stucco or some other alternative. Painting the brick is not an option that staff would support.
  - O Comments on the civil landscaping plans page 7:
    - Great to see the sidewalk along 98<sup>th</sup> Street, including the removal of the retaining wall and constructing a compliant sidewalk. Also great to see the north south sidewalk connection between the street and the buildings. These are game changers in terms of the pedestrian accommodations on site.
    - Some signage is located in spots where not permitted; specifically a monument sign very close to the lot line. This is not permitted since this is future right-of-way expansion. Need to discuss other options for locating signage.
  - Comments on the civil landscaping plans page 16:
    - There is not that much landscaping on-site currently, so submitted plans show a significant improvement from the existing conditions. There are a few spots where trees are required and not show on the plans (i.e., end of row islands).
    - Technically city code requires the *entire* site to be brought into compliance due to the conformance trigger of redevelopment. Given the phased development approach, staff doesn't think this is the appropriate route especially as there is limited landscape yards in certain portions of the site. The approach staff will be taking is landscaping requirements based on the disturbance area, which is a more typical standard for partial redevelopment.

- Essentially, staff uses same landscaping standard but for the project's disturbance area as opposed to the total site.
- Using that calculation, the plans are a little bit low on trees, but fine on shrubs. Staff see several opportunities to incorporate trees along the grocery store building in the area that is currently depicted as concrete. This would not only bring the plans into compliance, but also improve that building elevation.
- Review other minor landscaping comments on plans and in Comment Summary.
- O At the request of the city and requirement of applying the planned development overlay zoning district, the applicant created a Preliminary Development Plan. The PDP shows a long-term view of how the remainder of this site could evolve and be redeveloped.
  - Some of the square footages need to be cleaned up, the parking configuration in the PDP is different from what is proposed to be constructed.
  - In the northeast corner of the site, staff appreciates the inclusion of a high-density, mixed use building which is consistent with the Lyndale Retrofit Plan.
  - In the southeast corner along 98<sup>th</sup> St and Lyndale, minimum square footage for buildings of 4,000 sq. ft. is needed. Both buildings depicted on the PDP do not meet this minimum. In the spirit of the B-4 zoning district and filling out this corner, staff requests applicant put a little more planning into this area of the site. At a minimum, ensure code complying floor areas in the buildings proposed.
- Markegard commented that the Lyndale Retrofit plan is now adopted. Reiterated staff's appreciation of the higher density, mixed use building on the site. However, on the corner of Lyndale and 98th Street staff would like to see much higher density, more massing in that area. As shown on the PDP, staff feels it is an underachievement for the corner. Staff would like to work with the applicant to put more development on this corner for better Lyndale Retrofit plan compliance. Requested comments from Julie Farnham who worked on the Lyndale Retrofit Plan.
- Sr. Planner, Farnham reiterated comments made by Markegard. Recognizes that the Lyndale and 98th corner might not redevelop for a while, but what is being shown currently on the PDP is an underachievement and would like to see something more substantial. Appreciates the retention of some green space right at the corner which agrees with the Lyndale Retrofit Plan. Also noted that when the Orange Line BRT starts operating (planned for Dec. 2021), expects the area to become much more transit oriented and mixed use. Asks applicants to think longer term.
- Ouestions from applicants:
  - Tim Marco asked for further discussion regarding the proposed painted brick on the exterior elevations. Commented that removing and replacing all the brick is not economic option, and that covering the brick is also not a good strategy. Understands that the painted brick is not an accepted material, but applicant was hoping that since it is a recessed component of the façade, set back underneath the existing overhang, that they could utilize a fresh paint color to brighten it, as opposed to keeping the dark red/maroon. Felt that this would allow for the rest of the materials and color palate to be updated to a fresher look. If applicant needs to keep the red brick they would change the color palate to a darker tone for the entire façade. Asked for an opportunity to talk through with staff how they got to the plans for painting the brick and allowing for the brighter/fresher look.
    - Centinario stated that it is a long-standing city policy and requirement not to coat exterior materials. Staff understands the desire to freshen up the building and painting is an easy cost effective way to accomplish this. However, staff worries about long-term maintenance and potential building ramifications with coating brick. Guidance is to revise the plans as necessary to depict not painting brick.
    - Pease made the comment that there are two recent examples of brick painting variances requested in the last year and a half, both of which were denied. Acknowledged that the applicant has a right to apply for a variance, but given these two recent examples it may not be the best route to take.
    - Marco agreed, and indicated that they will take the guidance provided today and revise plans accordingly.

- O Londell commented that the elevations depicted on the PDP don't match the plans for what is proposed to be built with respect to the grocery store. Specifically the location of the main building entrance and the handicap parking. Plans appear to indicate that persons parking in the handicap would need to cross the drop-off area to get to the main entrance (not optimal), which could cause some concerns from an ADA compliance perspective.
  - Centinario requested that the applicant clean up the PDP to match the proposed construction plans. Also, asked that the PDP graphics be updated to match the design applicants are planning to construct for the grocery.
  - Marco asked if there was a timeline for when the revisions requested by city staff should be completed in preparation for the review of the project at the scheduled Planning Commission meeting on October 14.
    - Centinario doesn't see anything that must be changed before going to the Planning Commission. Comments are relatively minor items. However, if no revisions are made it could lead to a lot of discussion at the Planning Commission. Up to the applicant how they want to handle changes, staff would address any non-compliance issues in a staff report. To the extent applicant can address staff's comments it would be helpful. In terms of timeline, staff would need to see these changes within the next week to get report done and through internal process.
    - Marco commented that it seemed like a schedule they would not be able to meet.
       Indicated they will follow-up with Centinario outside the meeting.



## **Comment Summary**

**Application #:** PL2021-191

Address: 9728 LYNDALE AVE S, BLOOMINGTON, MN 55420

Request: Rezone 9728 Lyndale Avenue South from B-4 to B-4(PD) to apply the planned

development (PD) overlay zoning district; preliminary development plan for a multiphased redevelopment of the Clover Shopping Center; and final development plan for a partial redevelopment of the Clover Shopping Center and to construct an approximately

24,000 square foot grocery store with site modifications.

**Meeting:** Post Application DRC - September 21, 2021

Planning Commission - October 14, 2021 City Council (Projected) - November 15, 2021

# NOTE: All comments are not listed below. Please review all plans for additional or repeated comments.

Planning Review Contact: Mike Centinario at mcentinario@BloomingtonMN.gov, (952) 563-8921

1) Exterior materials must meet Section 19.63.08. Some of the proposed materials, brick and glass, are approved permitted materials. Additional information is needed regarding the architectural panels and wood-look panels.

Painting the existing brick is not permitted and a deviation from City Code to paint the brick would not be supported by staff. Please amend the building elevations to a Code-complying alternative.

- 2) The preliminary development plan illustrates a compliant overall floor area ratio.
- 3) A three foot high screen for a parking lot adjacent to all public streets (see City Code Section 21.301.15).
- 4) Interior trash and recycling must be provided (see City Code Section 21.301.17).
- 5) The B-4 zoning district requires minimum amount of building transparency between two and 10 feet. The southern elevation, which is the primary elevation, seems to meet the standard, but provide a percentage to confirm. Very little transparency is proposal along the west, Interstate side, building elevation. This requires a deviation from City Code. To what degree could some transparency be added to the west elevation? Otherwise, the City Code allows for design alternatives such as artwork, display boxes, green wall, etc.
- 6) Property must be platted per Chapter 22 of the City Code and the approved plat recorded at Hennepin County prior to the issuance of a foundation or building permit. According to the applicant, the preliminary and final plat application is forthcoming. To potentially have the plat application reviewed at the same City Council meeting as the preliminary and final development plans, the plat application must be submitted on Wednesday, September 29th.
- 7) Parking lot and exterior security lighting must meet Section 21.301.07. A minimum of 2.0 foot-candles is required on the parking surface (which may be reduced to 1.0 foot-candles for the outer perimeter of the parking lot. Elevated lighting levels are required at building entrances and at pedestrian crossings.
- 8) City Code includes certain landscaping compliance triggers. Due to the removal of a large portion of the overall building square footage, City Code requires the entire site to be brought up to current standards.

However, because the site is planned for phased redevelopment, City staff are supportive of development flexibility for compliance based on site disturbance. The proposed landscaping using the site disturbance approach, 148,316 square feet, requires 44 trees once the 25% mixed use district reduction is applied. Twenty-four trees must be added. For shrubs, 111 shrubs are required - the plan depicts compliance with shrubs. A landscaping surety will be required based on disturbance area.

City staff with landscape architecture backgrounds have reviewed the landscaping plans and provided comments. Those comments will be forwarded to the applicant for consideration.

- 9) If the parking island at the northwest corner of Wells Fargo is reconstructed, widen the island to meet the 8-foot minimum and shift south to align with other parking islands. Include a deciduous tree.
- 10) Extend curb and gutter along entire north drive lane. Maximize the landscape yard to provide buffer between Clover Center and the Freeway Ford.
- 11) Sign reviews are handled administratively. Monument signs are not permitted in the B-4 zoning district. Ground signs are limited to 8-feet above grade. The permitted sign area is the same as monument signs 100 square feet. Staff is supportive of a slight reduction in sign setback provided at least a 2-foot buffer from sidewalk is maintained. Also, the stenciled graphic looks to be the grocer's logo, which would be considered signage.
- 12) Relocate sign in northeast corner of the site. Monument signs are not permitted in the B-4 district.
- 13) Include a deciduous tree in all parking islands.
- 14) Revise plan to include at least 44 trees. Landscaping, including at least a few trees, should be incorporated in front of the grocery.
- 15) There are multiple areas to incorporate additional landscaping along south building elevation.
- 16) CMUs are not a permitted exterior building material. Select brick as the proposed building material or request a deviation to allow a split-faced CMU. Staff would need to evaluate the merits of that deviation from exterior materials standards.
- 17) Are the "architectural panels" fiber cement panels? If so, they are limited to 15 percent of a given building elevation.
- 18) The north building elevation was not included in the submittal. What is proposed for the north elevation?
- 19) Provide additional information on the proposed metal panels. There are panel thickness and durability requirements. Specifically, the City requires a minimum 30-year manufacturer finish warranty.
- 20) The square footages in the preliminary development plan are inconsistent with the rest of the plan set. Amend accordingly
- 21) Neither of the future retail buildings in the southeast corner of the site meet the minimum 4,000 square foot size requirement. Adjust the building size to 4,000 square feet. Alternatively, request a deviation for the future phase and detail how the corner and the two buildings could be designed to have a unified street presence.
- 22) Please adjust this page in the preliminary development plan. There are some minor inconsistencies.
- Revise sheet 1 of the preliminary development plan so the grocery building footprint, parking lot design, and pedestrian connection for the grocery are consistent with civil plans.

### Building Department Review Contact: Duke Johnson at djohnson@BloomingtonMN.gov, (952) 563-8959

- 1) Must meet 2020 MN State Building Code
- 2) Must meet 2020 MN Accessibility Code.
- 3) Provide a detailed code analysis with the plans.
- 4) SAC review by MET council will be required.
- 5) Building plans must be signed by a MN licensed architect.

#### Environmental Health Review Contact: Erik Solie at esolie@BloomingtonMN.gov, (952) 563-8978

1) Provide an Environmental Health Plan Review application with plan submittal for each proposed food facility.

#### Fire Department Review Contact: Laura McCarthy at lmccarthy@BloomingtonMN.gov, (952) 563-8965

- 1) Provide adequate turning radius for BFD Ladder 3 for all emergency vehicle access lanes.
- 2) Hydrant coverage shall be provided within 50' of the FDC and within 150' of all portions of the structure.
- 3) Fire alarm and annunciator panels and Knox box locations to be determined by the Fire Prevention Division. This project may require multiple panels and Knox boxes.
- 4) Emergency responder radio coverage meeting the requirements of appendix L in the 2015 MSFC shall be provided throughout the property and within the structures.
- 5) Building/property shall be adequately signed for emergency response.

## Construction/Infrastructure Review Contact: Brian Hansen at bhansen@BloomingtonMN.gov, (952) 563-4543

1) Include detail for Non-Residential Commercial Driveway Entrance

#### Water Resources Review Contact: Brian Hansen at bhansen@BloomingtonMN.gov, (952) 563-4543

- 1) Provide stage/storage report in future submittals.
- 2) Provide calculations showing adequate energy dissipation.
- 3) Consider routing ST-09 to ST-06.
- 4) Recommend using a distribution manifold or internal connections for underground system.
- 5) An erosion control bond is required.
- 6) A maintenance agreement must be signed by the property owner and recorded at Hennepin County.
- 7) Utility as-builts must be provided prior to issuance of Certificate of Occupancy.
- 8) HDPE pipe connections into all concrete structures must be made with water tight materials utilizing an A-Lok or WaterStop gasket or boot, cast-in-place rubber boot, or approved equal. Where the alignment precludes the use of the above approved watertight methods, Conseal 231 WaterStop sealant, or approved equal will only be allowed as approved by the Engineer.
- 9) Submit a copy of Nine Mile Creek Watershed District permit and comments prior to issuance of City of Bloomington permits (www.ninemilecreek.org).
- 10) The City is interested in exploring the possibility of providing additional stormwater management onsite beyond the project requirements. Contact City water resources staff to continue conversation.

#### Utility Review Contact: Brian Hansen at bhansen@BloomingtonMN.gov, (952) 563-4543

- 1) Install hydrants to provide fire protection for entire building. Each hydrant covers 150-foot radius. Make sure there is a hydrant within 50' of the FDC and that a fire truck has full access to that hydrant. Please show the FDC location on the Plan.
- 2) Loop water system (supply from two points) to provide increased reliability of service and reduction of head loss. Use 8" watermain for the loop.
- 3) Utility and mechanical contractors must coordinate the installation of all water and sewer service pipes into the building to accommodate city inspection and testing.
- 4) All components of the water system, up to the water meter or fire service equipment must utilize protective internal coatings meeting current ANSI/AWWA standards for cement mortar lining or special coatings. The use of unlined or uncoated pipe is not allowed.
- 5) Install interior chimney seals on all sanitary sewer manholes.
- 6) See Document Markups
- 7) A minimum 10-foot horizontal separation and 18-inch vertical separation is required between watermain and sewers.
- 8) Provide a minimum of 8-feet and a maximum of 10-feet of cover over all water lines, valves, services, etc.

- 9) Utility as-builts must be provided prior to issuance of Certificate of Occupancy.
- 10) Minnesota Department of Health (MDH) water permit/review may be required. Provide a copy of MDH approval letter or written confirmation from MDH that no permit/approval is required.
- 11) Combination fire and domestic services must terminate with a thread on flange or an MJ to flange adapter. The water service must be metered within 10' of where it crosses the outside wall of the building.
- 12) Taps of live water mains are done by City forces and paid for and coordinated with the Contractor.
- 13) Any new or substantial remodel of a food service facility must provide an exterior grease interceptor and grease interceptor maintenance agreement. See Engineering Detail 412 for reference. Please add the Example City detail to the plan (Included in the Documents and Images). Work with Bloomington Utilities and B&I staff for sizing and approval of the specific Grease Interceptor Design.
- Private common utility easement/and maintenance agreement must be provided for any shared water and sewer systems (i.e. the water loop serving the bank and the stores).
- 15) Sanitary sewer mainline, clean-outs, manholes, and services must be designed with adequate depth of cover or install high-density polystyrene insulation to prevent freezing. (Provide the equivalent of 9' of cover).
- 16) Minnesota Pollution Control Agency (MPCA) sanitary sewer permit/review may be required. Provide a copy of MPCA approval letter or written confirmation from MPCA that no permit/approval is required.
- 17) Use schedule 40, SDR 26, or better for PVC sewer services.
- 18) Provide valves for system isolation (longest interval cannot exceed 400 feet) and for building isolation without shutting down supply to hydrants.
- 19) Use Class 52 DIP water main for pipe 12-inches in diameter and smaller. A minimum 8 mil polywrap is required on all DIP.
- 20) All unused water services must be properly abandoned at the main. All unused sanitary sewer services must be properly abandoned at the property line.
- 21) Coordinate work with Bloomington to connect the water loop with a new 8" water service crossing W 98th St at Aldrich Ave
- 22) Install additional water valves strategically so that there is a valve at least every 400' along the water system loop.

#### Traffic Review Contact: Brian Hansen at bhansen@BloomingtonMN.gov, (952) 563-4543

- 1) Traffic study recommended to adjust 98th St medians to minimize potential of SB left maneuver
- 2) Illustrate on plan that the clear view triangle (15' from property corner to driveway approaches) is not obstructed by landscaping or signage.
- 3) See Document Markups.

### PW Admin Review Contact: Brian Hansen at bhansen@BloomingtonMN.gov, (952) 563-4543

- 1) Property must be platted per Chapter 22 of the City Code and the approved plat recorded at Hennepin County prior to the issuance of a foundation or building permit.
- 2) Private common driveway/access easement/agreement must be provided.
- 3) Private common utility easement/agreement must be provided.
- 4) Right-of-way dedication is required on the final plat as approved by the City Engineer.
- 5) See checklist of items that must be included on the preliminary plat per the Bloomington City Code, Chapter 22.
- 6) A title opinion or title commitment that accurately reflects the state of the title of the property being platted, dated within 6 months of requesting City signatures, must be provided.
- 7) Consent to plat form is needed from any mortgage company with property interest.
- 8) \$15 fee for certified copy of the final plat must be paid. Engineering staff will obtain a certified copy of the final plat from Hennepin County.
- 9) Public drainage and utility and easements must be provided on the final plat as approved by the City Engineer.

- 10) A 10-foot sidewalk and bikeway easement shall be provided along all street frontages as approved by the City Engineer. Developer/owner shall provide the legal description and Engineering staff will prepare the easement document.
- 11) Existing easements may be vacated. Contact Bruce Bunker at 952-563-4546 or bbunker@BloomingtonMN.gov for information regarding the Public Rights-of-Way Vacation Application. It is the responsibility of the developer to determine if private utilities exist in the easement prior to submitting the application. Developer/owner to provide legal description and Engineering staff will prepare vacation document.

### AFFIDAVIT OF PUBLICATION

STATE OF MINNESOTA COUNTY OF HENNEPIN

) ss

Karen Nelson being duly sworn on an oath, states or affirms that he/she is the Publisher's Designated Agent of the newspaper(s) known as:

#### SC Bloomington Richfield

with the known office of issue being located in the county of:

#### HENNEPIN

with additional circulation in the counties of: HENNEPIN

and has full knowledge of the facts stated below:

- (A) The newspaper has complied with all of the requirements constituting qualification as a qualified newspaper as provided by Minn. Stat. §331A.02.
- (B) This Public Notice was printed and published in said newspaper(s) once each week, for 1 successive week(s); the first insertion being on 09/30/2021 and the last insertion being on 09/30/2021.

MORTGAGE FORECLOSURE NOTICES

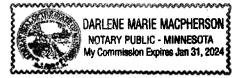
Pursuant to Minnesota Stat. §580.033 relating to the publication of mortgage foreclosure notices: The newspaper complies with the conditions described in §580.033, subd. 1, clause (1) or (2). If the newspaper's known office of issue is located in a county adjoining the county where the mortgaged premises or some part of the mortgaged premises described in the notice are located, a substantial portion of the newspaper's circulation is in the latter county.

By: Kaun Illia

Designated Agent

Subscribed and sworn to or affirmed before me on 09/30/2021 by Karen Nelson.

Notary Public



Rate Information:

(1) Lowest classified rate paid by commercial users for comparable space:

\$34.45 per column inch

Ad ID 1170478

#### CITY OF BLOOMINGTON NOTICE OF PUBLIC HEARING BY THE PLANNING COMMISSION

Bloomington Planning Commission will hold a public hearing on October 14, 2021, 6:00 PM in the Council Chambers at Bloomington Civic Plaza, 1800 West Old Shakopee Road, Bloomington, Minnesota, and by electronic means as provided by State law, to consider Case PL2021-191, an application by Kraus-Anderson to rezone 9728 Lyndale Avenue South from B-4 to B-4(PD) to apply the planned development (PD) overlay zoning district; preliminary development plan for a multi-phased redevelopment of the Clover Shopping Center; and final development plan for a partial redevelopment of the Clover Shopping Center and to construct an approximately 24,000 square foot grocery store with site modifications.

Review information and materials at <a href="https://www.blm.mn/notices">www.blm.mn/notices</a>. For more information or to submit comments, contact Mike Centinario, Planner, at (952) 563-8921 or mcentinario@BloomingtonMN.gov.

Published in the Sun Current September 30, 2021 1170478

## **City of Bloomington Notification Map**



## Case PL2021-191

**Address: 9728 Lyndale Avenue South** 

Notification Boundary (500 feet)	W.
Subject Property/Properties	S .
Notified Properties	



## **Planning Commission Item**

Originator Planning	Privately Initiated City Code Amendment: Motor Vehicle Sales, High Density
Agenda Section Item 2	October 14, 2021

Requested Action:

Staff recommends approval of the proposed ordinance through the following motion:

In Case #PL2021-192, I move to recommend the City Council adopt an ordinance establishing and defining Motor Vehicle Sales, High Density as a new use designation and making it a permitted use in the C-1 and C-3 zoning districts, thereby amending Chapters 19 and 21 of the City Code.

Description:

Privately initiated City Code Amendment establishing and defining "MOTOR VEHICLE SALES, HIGH DENSITY" as a use and adding as a conditional use in the C-3 zoning district

Attachments:

Staff Report
Ordinance
Project Description and Proposed Ordinance
Affidavit of Publication

#### **GENERAL INFORMATION**

Applicant: United Properties

Request: Privately initiated City Code Amendment establishing and

defining "Motor Vehicle Sales, High Density" as a use and adding it as a permitted use in the C-1 and C-3 zoning districts.

#### CHRONOLOGY

Planning Commission 10/14/2021 – Public hearing scheduled

City Council 11/15/2021 – Public hearing (anticipated date)

#### **DEADLINE FOR AGENCY ACTION**

Application Date: 09/09/2021 60 Days: 11/08/2021 120 Days: 01/07/2022

**Applicable Deadline:** 01/07/2022 (Extended by the City)

Newspaper Notification: Confirmed (09/30/2021 Sun Current – 10 day notice)

#### STAFF CONTACT

Nick Johnson, Planner Phone: (952) 563-8925

E-mail: nmjohnson@BloomingtonMN.gov

#### **PROPOSAL**

United Properties requests a privately initiated City Code amendment to create a new land use classification in the City's Zoning Code (Chapters 19 and 21) – "Motor Vehicle Sales, High Density". The applicant proposes to define Motor Vehicle Sales, High Density as follows:

Motor Vehicle Sales, High Density. The sale, brokering or lease of new or used motor vehicles in a multi-level, fully enclosed structure(s) on a site with a floor area ratio of 0.6 or higher where vehicles for sale, resale or lease are stored and displayed within a completely enclosed building on the premises of the business, except for up to 30 motor vehicles that may be stored or displayed outdoors. The use may also include minor vehicle repair in up to six service bays

fully screened from view of any public street. All component uses require parking in accordance with  $\S 21.301.06(d)$ .

The ordinance would designate the new use as a permitted use in the following zoning districts: Freeway Office and Service (C-1) and Freeway Commercial Center (C-3). The proposed ordinance would amend Section 19.03 (Definitions) and Section 21.209 (Use Tables) of the City Code. The applicant seeks to establish a high density motor vehicle sales facility through a separate and subsequent development application should the ordinance be approved.

#### **ANALYSIS**

The Zoning Code currently includes five types of motor vehicle sales facilities. These land use designations are allowed in various zoning districts and are defined as follows:

*Motor Vehicle Sales, Class I.* The sale and service of new motor vehicles obtained directly from the manufacturer.

Motor Vehicle Sales, Class II. The sale of used motor vehicles displayed on the premises, and taken in trade as part of the sale of a new or used motor vehicle or purchased or recovered from another dealer, leasing or rental business, or private individual, and where the primary purpose of the business is the sale of such used motor vehicles.

Motor Vehicle Sales, Class III. The sale of used motor vehicles which are stored and displayed on the premises of a business whose primary activity is other than the acquisition of such vehicles for sale, resale, rental or leasing and in a location on the property which does not occupy parking spaces otherwise required to meet the requirements of this code.

Motor Vehicle Sales, Class IV. The sale, brokering, lease or rental of new or used motor vehicles where no such vehicles for sale, resale, rental or leasing are stored or displayed on the premises of the business. Class IV Motor Vehicle Sales shall be considered permitted uses in all zoning districts where offices and office uses are permitted.

Motor Vehicle Sales, Enclosed. The sale, brokering or lease of new or used motor vehicles where all vehicles for sale, resale or lease are stored and displayed entirely within a completely enclosed building on the premises of the business, including the storage and display of up to 30 motor vehicles within a parking structure and accessory to an enclosed motor vehicle sales facility. The use may also include minor vehicle repair in up to six service bays fully screened from view of any public street. All component uses require parking in accordance with § 21.301.06(d).

The types of motor vehicle sales facilities defined in the City's Zoning Code were mostly established in 1993 (Ordinance #93-48). During this timeframe, the City was experiencing an increased development of Class I motor vehicle sales facilities along I-494. As a result, the City

Report to the Planning Commission Planning Division/Engineering Division 10/14/2021

conducted multiple land use studies and found auto dealerships with significant amounts of auto inventory surface parking do not generate an equivalent amount of jobs and tax revenue or value as other common land uses located in close proximity to high volume freeways. As a result, the City established specific performance standards for motor vehicle sales facilities in Section 21.302.01 of the City Code in 2006 (Ordinance #2006-35). These standards established minimum floor area ratios (FARs) for new auto dealerships and required existing auto dealers could not reduce their amount of building area or expand their surface parking or inventory storage areas, thereby reducing their overall FAR. The use designation of "motor vehicle sales facility, enclosed" was also established and defined as part of this ordinance in 2006. When the enclosed motor vehicle sales use was established, it was permitted in a greater number of zoning districts than conventional Class I or II motor vehicle sales facilities with outdoor storage of vehicles. For more efficient use of land, it is in the City's interest to incentivize the creation of enclosed facilities as opposed to those with large amounts of auto inventory storage on surface parking lots.

The proposed new land use designation of "motor vehicle sales, high density" is most similar to the "motor vehicle sales, enclosed" use. The main difference or contrast between these two uses is the proposed use of motor vehicle sales, high density would allow for a limited amount of motor vehicles (up to 30) to be stored or displayed outdoors, as opposed to within an associated parking structure. The tradeoff or compromise proposed of allowing for a limited amount of storage or display of auto inventory outdoors is the requirement of providing a multi-story development with a minimum floor area ratio (FAR) of 0.6. By requiring a minimum FAR of 0.6, underutilization of land is avoided and minimum development intensity assured on valuable sites in close proximity to high volume freeways. Both the enclosed and high density motor vehicle sales uses are more characteristic of a typical multi-story retail use, with the majority of the sales and office activities occurring within an enclosed building. Similar to the allowance for an enclosed motor vehicle sales facility, the proposed new use would also allow for up to six bays of minor vehicle repair, so long as the bays are fully screened from the view of any public street.

The privately initiated City Code amendment seeks to allow the new high density motor vehicle sales use in the C-1 and C-3 zoning districts. The purpose and intent of the C-1 and C-3 zoning districts are as follows (Sec. 21.205.01, 21.205.03 and 21.205.03):

- Freeway Office and Service (C-1): The Freeway Office and Service (C-1) District is designed to provide for a variety of non-retail uses that benefit from exposure and/or proximity to freeway corridors and interchanges. The C-1 District provisions are intended to: 1) Avoid the underutilization of land; and 2) Accommodate market demand for uses in a manner compatible with the city's future vision for its freeway corridor.
- Freeway Commercial Center (C-3): The Freeway Commercial Center (C-3) District is designed to provide opportunities for high intensity retail and mixed uses in high profile locations near freeway corridors and interchanges that have high quality accessibility and transit service potential. The C-3 District is intended to: 1) Allow significant retail-oriented development intensity in key locations; 2) Allow the integration of residential uses; and 3) Avoid the underutilization of land.

The two zoning districts selected for the new high density motor vehicle sales facility are appropriate in the judgment of staff. The C-1 zoning district is the primary zoning district utilized for Class I and II motor vehicle sales facilities, so it makes sense to include this new use in this district. The C-3 zoning district is intended for high intensity retail activities near freeway corridors and interchanges. Given high density motor vehicle sales facilities would have similar use characteristics to multi-story retail, it is appropriate to include the new use in this zoning district from staff's perspective. In addition, staff finds a high density motor vehicle sales facility would be consistent with the other site intensity, setback, and other performance standards required in the City Code for these zoning districts.

There are 11 sites in Bloomington that are currently zoned C-1 or C-3. All of the sites are located along Interstate Highway 494 and American Boulevard in between Nicollet Avenue South and Normandale Boulevard. Figure 1 identifies the sites currently zoned C-1 or C-3 in red. All of the sites are in close proximity to freeways and are served by high volume arterial roadways.



Figure 1: Sites with Zoning Designation of C-1 and C-3 (shaded red)

The required performance standards for motor vehicle sales uses or facilities in the City Code (Sec. 21.302.01) would apply to high density motor vehicle sales sites or facilities. These standards include restrictions pertaining to noise, repair and service activities, vehicle test driving, off-site inventory storage, vehicle storage and display, and vehicle loading/unloading. All of these standards would be applicable to a high density motor vehicle sales facility, similar to Class I and II motor vehicle sales facility or site. A Code section reference is included in the use table of the proposed ordinance.

Finally, the Comprehensive Plan land use category of Regional Commercial (RC) is the only category that allows automobile sales on this scale. For a high density motor vehicle sales facility to be approved, the site would need to be guided as Regional Commercial in the Comprehensive Plan. The proposed City Code amendment does not remove or change this requirement in any way.

#### **Public Notice Note**

The initial application submitted in this case included a request that high density motor vehicle sales be allowed as a permitted use in the C-2 zoning district in addition to the C-1 and C-3 districts. As such, the public notice for this application included reference to allowing the proposed use in the C-2 zoning district. Following publication of the notice and additional discussion with staff, the applicant amended their application, at the request of staff, to remove reference or allowance of the new use in the C-2 zoning district given that the maximum FAR allowed in the C-2 District (0.5) is lower than the minimum required for the new use category (0.6). The ordinance under consideration by the Planning Commission and City Council does not include allowing the proposed use in the C-2 zoning district. Nevertheless, the original public notice published for the Planning Commission did include reference to the C-2 zoning district. Staff is providing this information for clarification purposes. The public notice for the City Council meeting will be amended to reflect the revised application, removing any reference to the C-2 district.

#### RECOMMENDATION

Staff recommends approval of the proposed ordinance through the following motion:

In Case #PL2021-192, I move to recommend the City Council adopt an ordinance establishing and defining Motor Vehicle Sales, High Density as a new use designation and making it a permitted use in the C-1 and C-3 zoning districts, thereby amending Chapters 19 and 21 of the City Code.

#### ORDINANCE NO. 2021 - \_\_\_\_

AN ORDINANCE DEFINING MOTOR VEHICLE SALES, HIGH DENSITY AS A NEW USE DESIGNATION AND DESIGNATING MOTOR VEHICLE SALES, HIGH DENSITY AS A PERMITTED USE IN THE C-1 AND C-3 ZONING DISTRICTS, THEREBY AMENDING CHAPTERS 19 AND 21 OF THE CITY CODE.

The City Council of the City of Bloomington, Minnesota ordains:

Section 1. That Chapter 19 of the City Code is hereby amended by deleting those words that are contained in brackets [] with strikethrough text and adding those words that are underlined, to read as follows:

\*\*\*

**CHAPTER 19: ZONING** 

**ARTICLE I. GENERAL PROVISIONS** 

\*\*\*

**DIVISION B: DEFINITIONS** 

#### § 19.03 DEFINITIONS

\*\*\*

**MOTOR VEHICLE SALES, ENCLOSED.** The sale, brokering or lease of new or used motor vehicles where all vehicles for sale, resale or lease are stored and displayed entirely within a completely enclosed building on the premises of the business, including the storage and display of up to 30 motor vehicles within a parking structure and accessory to an enclosed motor vehicle sales facility. The use may also include minor vehicle repair in up to six service bays fully screened from view of any public street. All component uses require parking in accordance with § 21.301.06(d).

MOTOR VEHICLE SALES, HIGH DENSITY. The sale, brokering, or lease of new or used motor vehicles in a multi-level, fully enclosed structure(s) on a site with a floor area ratio of 0.6 or higher where vehicles for sale, resale, or lease are stored and displayed within a completely enclosed building on the premises of the business, except for up to 30 motor vehicles that may be stored or displayed outdoors. The use may also include minor vehicle repair in up to six service bays fully screened from view of any public street. All component uses require parking in accordance with § 21.301.06(d).

\*\*\*

Section 2. That Chapter 21 of the City Code is hereby amended by deleting those words that are contained in brackets [] with strikethrough text and adding those words that are underlined, to read as follows:

**CHAPTER 21: ZONING AND LAND DEVELOPMENT ARTICLE II. DISTRICTS AND USES DIVISION H: USES § 21.209 USE TABLES** (d) Neighborhood and Freeway Commercial Zoning Districts. **Zoning District** References; See Use Type **Listed Section** C-2 C-1 C-4 B-1 B-2 B-4 C-3 C-5 \*\*\* Motor vehicle Ρ Ρ Ρ Ρ Ρ sales, L 21.302.01 enclosed Motor vehicle sales, high <u>P</u> <u>P</u> 21.302.01 density

\*\*\*

Passed and adopted this	day of	, 2021.	
ATTEST:			Mayor
Secretary to the Council			

APPROVED:		
City Attorney		

#### **Project Description:**

We are seeking the addition of a new Use Type in the Neighborhood and Freeway Commercial Zoning District. The addition would be Motor Vehicle Sales, High Density, which would be a Permitted Use in the C-1, and C-3 Zoning Districts. This text amendment would allow for the conditional use of Motor Vehicle Sales—and allow for a limited number of motor vehicles to be stored or displayed outdoors, meanwhile the higher density number of vehicles shall be stored within a fully enclosed structure.

The new definition provides us with a high FAR, generally much lower for motor vehicle sales. The use allows for auto sales which are similar to other retail sales, except a limited exterior product display.

The automotive industry has changed and will continue to evolve. Our use is on the leading edge of this evolution—a trend towards more traditional retail service, and a delivery and service-based experience.

#### SEC. 19.03. DEFINITIONS.

The following words and terms when used in this Chapter shall have the following meanings unless the context clearly indicates otherwise:

#### \* \* \*

**Motor vehicle sales, enclosed** - The sale, brokering or lease of new or used motor vehicles where all vehicles for sale, resale or lease are stored and displayed entirely within a completely enclosed building on the premises of the business, including the storage and display of up to thirty (30) motor vehicles within a parking structure and accessory to an enclosed motor vehicle sales facility. The use may also include minor vehicle repair in up to six (6) service bays fully screened from view of any public street. All component uses require parking in accordance with Section 21.301.06 (d).

MOTOR VEHICLE SALES, HIGH DENSITY. The sale, brokering or lease of new or used motor vehicles in a multi-level, fully enclosed structure(s) on a site with a floor area ratio of 0.6 or higher where vehicles for sale, resale or lease are stored and displayed within a completely enclosed building on the premises of the business, except for up to 30 motor vehicles that may be stored or displayed outdoors. The use may also include minor vehicle repair in up to six service bays fully screened from view of any public street. All component uses require parking in accordance with § 21.301.06(d).

**Moved** - The act of permanently establishing a structure upon a portion of land after removing same from another part of the same or a different lot, tract, or parcel of land.

#### SEC. 21.209. USE TABLES.

#### (d) Neighborhood and Freeway Commercial Zoning Districts.

USE TYPE		ZONING DISTRICT			REFERENCES				
									See Listed Section
	B-1	B-2	<b>B-4</b>	C-1	<b>C-2</b>	C-3	C-4	C-5	
<b>Motor Vehicle Services</b>									
Motor vehicle sales, Class I		P		P					21.302.01
Motor vehicle sales, Class II				A					21.302.01
Motor vehicle sales, Class III		С		С	С				
Motor vehicle sales, Class IV	P	P	P	P	P	P	P	P	
Motor vehicle sales,		P		P	P	Р	Ţ	р	21.302.01
enclosed		Г		Г	Г	Г	L	Г	21.302.01
Motor Vehicle Sales, High				<u>P</u>		<u>P</u>			21.302.01
Density				<u>r</u>		<u>r</u>			<u> </u>

#### AFFIDAVIT OF PUBLICATION

STATE OF MINNESOTA COUNTY OF HENNEPIN

Karen Nelson being duly sworn on an oath. states or affirms that he/she is the Publisher's Designated Agent of the newspaper(s) known as:

#### SC Bloomington Richfield

with the known office of issue being located in the county of:

#### HENNEPIN

with additional circulation in the counties of: HENNEPIN

and has full knowledge of the facts stated below:

- (A) The newspaper has complied with all of the requirements constituting qualification as a qualified newspaper as provided by Minn. Stat. §331A.02.
- (B) This Public Notice was printed and published in said newspaper(s) once each week, for 1 successive week(s); the first insertion being on 09/30/2021 and the last insertion being on 09/30/2021.

MORTGAGE FORECLOSURE NOTICES

Pursuant to Minnesota Stat. §580.033 relating to the publication of mortgage foreclosure notices: The newspaper complies with the conditions described in §580.033, subd. 1, clause (1) or (2). If the newspaper's known office of issue is located in a county adjoining the county where the mortgaged premises or some part of the mortgaged premises described in the notice are located, a substantial portion of the newspaper's circulation is in the latter county.

Designated Agent

Subscribed and sworn to or affirmed before me on 09/30/2021 by Karen Nelson.

Notary Public



Darlene Marie MacPherson **NOTARY PUBLIC - MINNESOTA** fy Commission Expires Jan 31, 2024

Rate Information:

(1) Lowest classified rate paid by commercial users for comparable space:

\$34.45 per column inch

Ad ID 1170467

#### CITY OF BLOOMINGTON NOTICE OF PUBLIC HEARING BY THE PLANNING COMMISSION

Planning Bloomington Commission will hold a public hearing on October 14, 2021, 6:00 PM in the Council Chambers at Bloomington Civic Plaza, 1800 West Old Shakopee Road, Bloomington, Minnesota, and by electronic means as provided by State law, to consider Case PL2021-192, an application by United Properties LLC for a privately initiated City Code Amendment establishing and defining "MOTOR VEHICLE SALES, HIGH DENSITY" as a land use and adding the use as a conditional use in the C-1, C-2 and C-3 zoning districts.

Review information and materials at www.blm.mn/notices. For more information or to submit comments, contact Nick Johnson, Planner, at (952) 563-8925 or nmjohnson@BloomingtonMN.gov.

Published in the Sun Current September 30, 2021 1170467



## **Planning Commission Item**

Originator Planning	Nine Mile Brewing Company - Change of Condition
Agenda Section Item 3	October 14, 2021

Requested Action:

Staff recommends the following motion:

In Case #PL2021-193, I move to adopt a resolution revising Condition of Approval #8 in Case #PL2021-109 as recommended in the staff report.

Description:

Change of Condition in Case #PL2021-109 for a required sidewalk connection serving a taproom and restaurant located within an existing multi-tenant office/warehouse building

Attachments:

Staff Report
Resolution of Approval
Project Description
Plans
Comment Summary
Notification Map
Affidavit of Publication

#### **GENERAL INFORMATION**

Applicant: MSP Southtech Investment LLC (Owner)

Nine Mile Brewing Company (User)

Location: 9555 James Avenue South

Request: Change in Condition in Case #PL2021-109 related to

sidewalk requirements for a taproom and restaurant with

outdoor seating

Existing Land Use and Zoning: Office, warehouse, and taproom/restaurant (under

construction); zoned Limited Industrial (I-2)

Surrounding Land Use and Zoning: North and west – Office and warehouse; zoned I-2

South – Health club and outdoor storage lot; zoned I-2

East – Recycling collection facility; zoned I-2

Comprehensive Plan Designation: Industrial

#### **HISTORY**

Planning Commission Action: 06/17/2021 – Approved Conditional Use Permit for an

approximately 10,500 square-foot brewery, taproom and restaurant with 207 indoor seats and 92 outdoor seats (Case

#PL2021-109).

#### **CHRONOLOGY**

Planning Commission 10/14/2021 Public hearing scheduled

#### **DEADLINE FOR AGENCY ACTION**

Application Date: 09/08/2021 60 Days: 11/07/2021 120 Days: 01/06/2022 Applicable Deadline: 11/07/2021

Newspaper Notification: Confirmed (09/30/2021 Sun Current – 10 day notice)

Direct Mail Notification: Confirmed (500-foot buffer – 10 day notice)

#### **STAFF CONTACT**

Nick Johnson, Planner Phone: (952) 563-8925

E-mail: nmjohnson@BloomingtonMN.gov

#### **PROPOSAL**

On June 17, 2021, the Planning Commission approved a Conditional Use Permit (CUP) for the Nine Mile Brewing brewery, taproom and restaurant (Case #PL2021-109), which included 207 indoor seats and 92 outdoor seats. The brewery, taproom and restaurant would be located within an existing office/warehouse building at 9555 James Avenue South. The project is currently under construction, and the first phase is anticipated to be completed in November or December of 2021. The Planning Commission action was subject to multiple conditions of approval required to be satisfied at various stages or milestones of the project. Condition of approval #8 of the CUP requires that a sidewalk connection to the entrance be provided prior to the issuance of a Certificate of Occupancy (C/O). The precise language of Condition #8 is as follows:

8. Prior to C/O A sidewalk must be provided to link the primary entrance with the public sidewalk network (Sec. 21.301.04(b)(2)(A)).

The complete list of adopted conditions of approval for the approved Conditional Use Permit in Case #PL2021-109 can be found in the attached Decision Notice document.

The applicants are requesting that Condition #8 be struck or removed from the CUP approval, as they report difficulties in achieving an ADA compliant sidewalk connection to the primary entrance of the subject tenant space. The applicants have evaluated alternative sidewalk connection locations elsewhere on site with staff. The applicants submit the amount of disruption and disturbance needed to install a sidewalk connection to the property is not commensurate or equivalent to the utility or value provided, especially for the taproom/restaurant use. The exhibits submitted by the applicants display the two locations evaluated for a possible sidewalk connection, both of which are not desired by the property owner.

#### **ANALYSIS**

The City Code requires that public and private sidewalks be constructed under certain circumstances associated with new development, redevelopment or change of use scenarios. In addition, conformance of nonconforming site characteristics, such as sidewalks, can be triggered upon a determination by the Issuing Authority that conformance is in the interest of public health, safety and welfare (Sec. 21.504(c)(4)(D)(vi)). The subject CUP for a new taproom and restaurant represents a change of use scenario, where an existing office/warehouse space would now be utilized for the taproom/restaurant use. A taproom and restaurant is anticipated to generate a higher

demand or volume of pedestrian trips than the previous office/warehouse occupancy. Higher demand is anticipated both due to higher activity levels and due to desires by customers to avoid driving under the influence. As such, the Planning Commission found it is in the interest of public health, safety and welfare to add a condition requiring a sidewalk connection from the public sidewalk network to the primary entrance of the taproom as a condition of the CUP. The City Code (Sec. 21.501.04(d)(3)) establishes that the entity empowered to approve a Conditional Use Permit, in this case the Planning Commission, has the authority to add conditions of approval.

Upon completing a more detailed site analysis, including multiple visits by Planning, Engineering and Traffic staff, it was determined that providing a direct ADA-compliant sidewalk connection to the taproom primary entrance would require significant site disruption or disturbance. The area in closest proximity to taproom entrance, creating the shortest sidewalk connection, would have difficulty complying with both the vertical slope (standard varies) and cross-slope (2%) requirements associated with (ADA) requirements. Shifting the sidewalk slightly to the west to avoid conflict with the driveway area serving the taproom would require costly disruption to the existing private retaining wall along West 96<sup>th</sup> Street. Based on these factors, staff recognizes the difficulty and challenge of providing a direct sidewalk connection to the taproom use in the southeast corner of the site.

Given the high cost of providing a direct sidewalk connection to the primary entrance, alternative solutions to create a connection to the public sidewalk network were evaluated by staff. The most feasible solution would be a connection at the southwest corner of the site by providing an approximately 13-foot sidewalk that would terminate into a landing, designated as no parking with striping, within the surface parking lot. This alternative location has much less grade than the area in close proximity to the taproom, offering a much flatter pedestrian connection. An ADA-compliant connection could be achieved at this location in the judgement of staff. Public Works staff estimates the cost of the sidewalk segment, ADA ramp and striping at this location to be approximately \$5,000.

The negative aspect of this solution is that the location of the alternative sidewalk connection is approximately 425 feet from the primary entrance of the taproom. While not ideal, the alternative location provides better site-lines and visibility for pedestrians walking in the area. Walking or biking in the drive aisles is safer than walking or biking through a vehicle access point. Vehicle owners routinely walk in drive aisles between their parked vehicles and entrances. Vehicle drivers are therefore accustomed to watch out for pedestrians in drive aisles. Pedestrian use of vehicle access points to access a site is less common and is less likely to be anticipated by a driver. At vehicles access points, motorists are focused on the driving task of exiting or entering the driveway and likely would not be anticipating the presence of a pedestrian. When compared to constructing a sidewalk connection to the public network near the primary entrance of the taproom, this alternative solution would require less site disturbance and disruption and would be less costly.

The solution originally requested by the applicant is to eliminate the requirement for a sidewalk altogether. As previously noted, the number of pedestrian trips to the subject tenant space are anticipated to increase due to the new taproom occupancy. The taproom and restaurant will be

Report to the Planning Commission Planning Division/Engineering Division 10/14/2021

located within a half-mile of a significant number of jobs including the Donaldson campus, City of Bloomington Civic Plaza, the Bloomington Center for the Arts and Vertical Endeavors located directly south of the taproom and restaurant. The site is also along a transit line and within a half mile of residential areas to the south, west and north. While pedestrian trip generation data based on use is not available, staff anticipates a measurable increase in pedestrian traffic to the subject tenant space with the new taproom use. The taproom will likely serve as a gathering location for nearby employees, residents and other visitors. Anecdotally, some proportion of these customers will travel by foot or bicycle, especially for a taproom use. Without a sidewalk connection provided into the site, peds or bicyclists will have the option of traversing over the grass (creating a "cowpath") if able bodied and when not blocked by snow ridges or walking through the southeast vehicle access point. Having peds utilize the southeast driveway is not an ideal condition, as motorists likely would not anticipate pedestrians in this location, the area has less visibility due to grades, and winter conditions may present challenges from a slip-hazard perspective due to the grades of the driveway.

After exploring this issue more with the applicant, staff and the applicant believe they have reached a reasonable compromise solution. This solution would involve the creation of a pedestrian connectivity agreement between the City and the property owner. Much like a proof of parking agreement, construction of the new sidewalk segment near the SW corner of the site would only trigger if there is an increase in pedestrian/bicycle traffic to the site. The City would use Streetlight data to assess whether pedestrian and bicycle traffic after opening exceeds pedestrian and bicycle traffic before opening. Streetlight is a company that partners with cell phone companies to gather anonymized mobility data. Streetlight can differentiate a motorist from a bicycle from a pedestrian.

Staff recommends this compromise solution as preferable to the alternatives: In summary, the Planning Commission has three primary options of action pertaining to Condition of Approval #8:

- Option #1 No Change to Condition: Keeping the existing Condition of Approval #8 in place would require the applicant to provide a sidewalk connection to the primary entrance of the taproom/restaurant. Based on the challenging grades of the area, this option is the most disruptive and costly to complete, and compliance with ADA requirements remains challenging due to existing grades.
- Option #2 Eliminate the Condition: Eliminating Condition of Approval #8 is the desired outcome of the applicant and would remove any requirement to connect to the public sidewalk network. Pedestrians would need to use the vehicle access points to access the property.
- Option #3 Compromise Approach Proof of Pedestrian Connectivity Agreement with a Potential Alternate Sidewalk Connection Location: Under this option, construction would trigger only upon demonstration of increased pedestrian/bicycle activity on site due to the taproom. As discussed above, if increased demand exists, an alternative sidewalk connection could be provided at the southwest corner of the property, offering multiple benefits. First, the sidewalk connection could serve the broader property, which

currently does not connect to the public sidewalk network into the site. Second, the alternate location ends in a location with greater visibility and less conflict to vehicles entering and exiting the site. Finally, the alternate location would require significantly less site disturbance, disruption and cost than Option #1. While the location is not in close proximity to the taproom/restaurant use, it still offers a relatively safer pedestrian entrance to the property.

Figure 1 presents a visual representation of Options #1 and #3. Staff recommends that Option #3 be pursued via a proof of pedestrian connectivity agreement, as it provides pedestrian and bicycle access into the property without the significant site disturbance associated with Option #1 (existing Condition of Approval #8). Using a proof of connectivity agreement allows for flexibility in the sidewalk approach depending on the actual pedestrian demand realized. If pedestrian use of the site does not materialize as expected, the sidewalk segment would not need to be constructed.

Should the Planning Commission support Option #1 or Option #3, staff recommends the required completion of the project be delayed, as winter conditions could complicate sidewalk installation prior to the taproom opening. Should the Planning Commission choose to eliminate the sidewalk condition (Option #2), then the timing of completion is an irrelevant consideration. The recommendation below reflects staff's support of Option #3, providing a proof of connectivity agreement for a future sidewalk connection

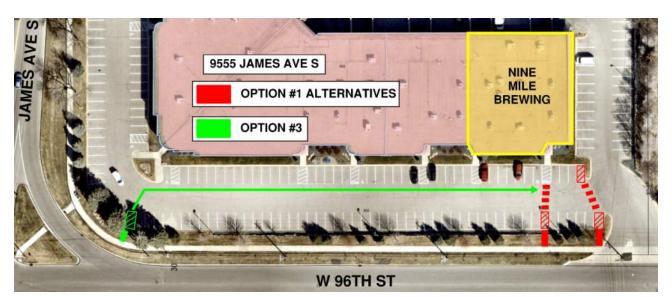


Figure 1: Sidewalk Connection Options for 9555 James Ave S

#### Status of Enforcement Orders

The property is not subject to any open enforcement orders.

#### RECOMMENDATION

Note the Planning Commission has final approval authority on this Change in Condition application unless an appeal to the City Council is received by 4:30 p.m. on October 19th.

Staff recommends the following motion:

In Case #PL2021-193, I move to adopt a resolution revising Condition of Approval #8 in Case #PL2021-109 to the following:

8. Ongoing By January 31, 2022, the property owner must enter into a proof of pedestrian connectivity agreement with the city. Eighteen months after a Certificate of Occupancy is issued for the taproom, City staff and the Applicant must meet and discuss pedestrian connectivity requirements.

#### PLANNING COMMISSION RESOLUTION No. 2021-

# A RESOLUTION APPROVING A CHANGE IN CONDITION OF APPROVAL FOR A CONDITIONAL USE PERMIT FOR A TAPROOM AND RESAUARANT WITH OUTDOOR SEATING LOCATED AT 9555 JAMES AVENUE SOUTH, BLOOMINGTON, MINNESOTA

WHEREAS, the Bloomington Planning Commission is empowered under State Law and Bloomington City Code to act upon certain types of conditional use permits, Minnesota; and

WHEREAS, the Bloomington Planning Commission approved a conditional use permit for a taproom and restaurant with outdoor seating located at 9555 James Avenue South, subject to Conditions of Approval in Case #PL202100109; and

WHEREAS, an application (Case #PL202100193) has been filed on behalf of Nine Mile Brewing Company and MSP Southtech Investment, LLC (hereinafter the "Applicants), the owner of the premises located at 9555 James Avenue South, to eliminate a Condition of Approval in Case #PL202100109 and whose property is legally described as follows:

Lot 2, Block 1, SOUTHTECH PLAZA

Hennepin County, Minnesota

WHEREAS, existing Condition of Approval #8 of Case #PL202100109 requires that a sidewalk be provided to link the primary entrance of the taproom and restaurant with the public sidewalk network; and

WHEREAS, Applicant is seeking to eliminate Condition of Approval #8 of Case #PL202100109 due to challenges related to project feasibility in proximity to the taproom entrance including meeting Americans with Disabilities Act (ADA) compliance requirements; and

WHEREAS, City staff agrees with the Applicant that the Condition of Approval #8 as drafted would require significant site disruption. Specifically the area in closest proximity to the shortest sidewalk connection would have difficulty complying with both the vertical slope and cross-slope requirements associated with ADA requirements. Shifting the sidewalk slightly to the west to avoid conflict with the driveway area serving the taproom would require disruption to the existing private retaining wall along West 96<sup>th</sup> Street; and

WHEREAS, because the taproom use proposed by this CUP is likely to generate a higher demand or volume of pedestrian trips than the previous office/warehouse space occupancy, staff recommends a revised condition of approval requiring the Applicant to enter into a proof of pedestrian connectivity agreement where the Applicant will be required to construct a pedestrian connection if the new taproom use increases pedestrian access to the site; and

WHEREAS, the Applicant has met with City staff and agrees to amend its application to remove Condition #8 of Case #PL202100109 and to move forward with the approach proposed by City staff; and

WHEREAS, the Bloomington Planning Commission has reviewed said request at a duly called public meeting on October 14, 2021, and considered the report of City staff, all information provided in the agenda materials, the Applicant's testimony, and the requirements in Bloomington City Code and state law; and

WHEREAS, the Bloomington Planning Commission approves an amended Condition of Approval #8 requiring that a sidewalk be provided to link the site with the public sidewalk network if triggered through a proof of pedestrian connectivity agreement; and

WHEREAS, subject to compliance with the amended Condition of Approval #8, the proposed development is not in conflict with the approved Conditional Use Permit in Case #PL202100109; and

WHEREAS, subject to compliance with the amended Condition of Approval #8, the proposed development will not be injurious to the surrounding neighborhood or otherwise harm health, safety or welfare. The amended condition allows for a practical review of pedestrian and bicycle access into the site, avoiding conflict with motorists at the location of the driveway serving the taproom and restaurant; and

NOW, THEREFORE, BE IT RESOLVED BY THE PLANNING COMMISSION OF THE CITY OF BLOOMINGTON, MINNESOTA, based on Case File #PL202100193, staff report, public testimony, and materials provided by the applicant:

- A. The recommendation of the City staff is adopted;
- B. Condition of Approval #8 for Case #PL202100109 shall be amended to read:
  - 8. Ongoing By January 31, 2022, the property owner must enter into a proof of pedestrian connectivity agreement with the city. Eighteen months after a Certificate of Occupancy is issued for the taproom, City staff and the Applicant must meet and discuss pedestrian connectivity requirements.
- C. All other Conditions of Approval from Case #PL202100109 shall remain unchanged.

BE IT FURTHER RESOLVED that staff are hereby directed and authorized to take all necessary and expedient steps to accomplish the intent of this resolution.

	Chair, Planning Commission
ATTEST:	
Secretary to the Planning Commission	

Passed and adopted this  $14^{\text{th}}$  day of October 2021.

#### **MEMORANDUM**

September 8, 2021

City of Bloomington
Planning Commission
Via email: nmjohnson@bloomngtonmn.gov

Re: Case #PL202100109 CUP for taproom change in condition request, #8

Good Afternoon,

We have spent a considerable bit of time looking at the conditions requested by the City related to the CUP approval of the Nine Mile Creek taproom at 9555 James Ave. So. For the most part, these modifications to the property are doable. As we have discussed with the City, our tenant and the landscaper, we have encountered issues with Request #8.

The slope of the berm and curb separating the parking lot from the sidewalk is extreme enough to require extensive removal of turf, curb and asphalt to achieve ADA acceptable elevations.

Removal of the turf will damage the irrigation system, existing landscaping and will intrude on the root system of a very mature pine.

Installing a sidewalk in the noted location will also require changes to the existing parking area and will effectively direct pedestrians through an active traffic area while crossing to the sidewalk that is adjacent to the building.

At the end of the day, we don't think the modification delivers any value to the property, the public or the tenant. Of course, anything is possible but in this case we don't feel it's the right thing to do. Therefore, we respectfully request that Item #8 be removed from the CUP conditions.

Sincerely,

Steven B. Hoyt Chief Manager FORUM JAMES LLC

Owner

Attachments



June 23, 2021

Nine Mile Brewing Company ATTN: Robert Countryman 5148 W. 95th Street Bloomington, MN 55437

RE: Case # PL202100109 - CUP for taproom and restaurant w/outdoor seating 9555 James Avenue South

#### Mr. Countryman:

9.

Prior to C/O

At its regular meeting of June 17, 2021, the Planning Commission approved a Conditional Use Permit for an approximately 10,500 square foot taproom and restaurant with outdoor seating with approximately 207 indoor seats and 92 outdoor seats within an existing office/warehouse building located at 9555 James Avenue South (Case #PL202100109).

The approval is subject to conditions that must be satisfied prior to the issuance of a Grading, Footing, Foundation or Building Permit. While the conditions list includes selected City Code requirements of particular interest, the development must comply with all applicable local, state and federal codes.

1.	Prior to Permit	Final Site and Building Plans must be approved for all exterior site changes
		associated with the proposed taproom and restaurant (Sec. 21.501.01).
2.	Prior to Permit	A building permit for all required changes to accommodate the proposed
		use be obtained.
3.	Prior to Permit	Sewer Availability Charges (SAC) must be satisfied.
4.	Prior to Permit	Trash and recycling storage must comply with Section 21.301.17 of the City
		Code.
5.	Prior to Permit	Tier 2 Transportation Demand Management plan must be submitted (Sec.
		21.301.09(b)(2)).
6.	Prior to Permit	Parking lot and site security lighting plans must be provided to satisfy the
		requirements of City Code Section 21.301.07.
7.	Prior to Permit	Compliance with either the approved landscape plan of record or the
		landscaping ordinance must be demonstrated for the full site. If additional
		plantings are necessary to achieve compliance, a landscape plan must be
		approved by the Planning Manager and landscape surety must be filed (Sec
		21.301.15).
8.	Prior to C/O	A sidewalk must be provided to link the primary entrance with the public

sidewalk network (Sec. 21.301.04(b)(2)(A)).

Prior to occupancy, life safety requirements must be reviewed and approved

by the Fire Marshal.

10.	Ongoing	The taproom and restaurant use is limited to as shown on the approved plans in Case File #PL2021-109.
11.	Ongoing	Future occupancy of vacant tenant spaces must be reviewed to ensure
12.	Ongoing	compliance with off-street parking requirements (Sec. 21.301.06(d)). Sufficient vehicle barriers must be provided for proposed outdoor dining or patio areas adjacent to vehicle parking or driving areas (Sec.
		21.302.19(d)(5)).
13.	Ongoing	All construction related loading, unloading, drop-off, pick-up, staging and parking must occur on site and off public streets.
14.	Ongoing	Alterations to utilities must be at the developer's expense.
15.	Ongoing	Signage must be in compliance with the requirements of Chapter 19, Article
		X of the City Code and the approved Uniform Sign Design of record (USD #203).
16.	Ongoing	All new rooftop equipment must be fully screened (Sec. 21.301.18).
17.	Ongoing	Development must comply with the Minnesota State Accessibility Code.
18.	Ongoing	An exterior grease interceptor must be reviewed and approved by the Utilities Division for the restaurant use.

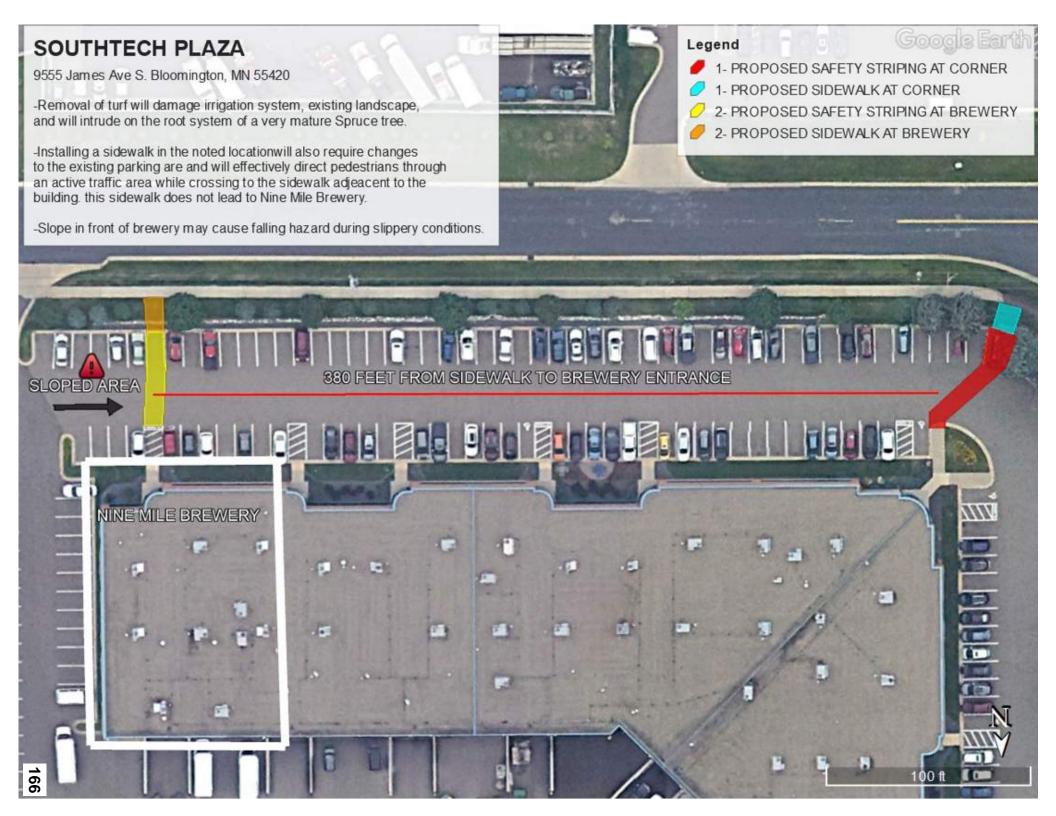
Should you have any questions regarding this action, please contact Nick Johnson, Planner, at (952) 563-8925 or nmjohnson@BloomingtonMN.gov.

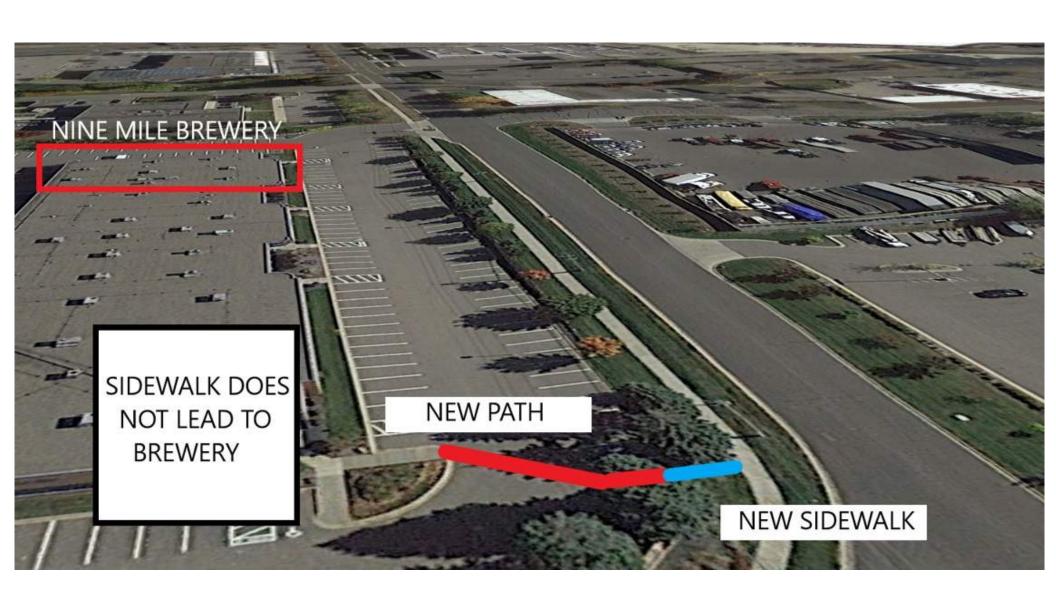
Sincerely,

Glen Markegard, AICP Planning Manager

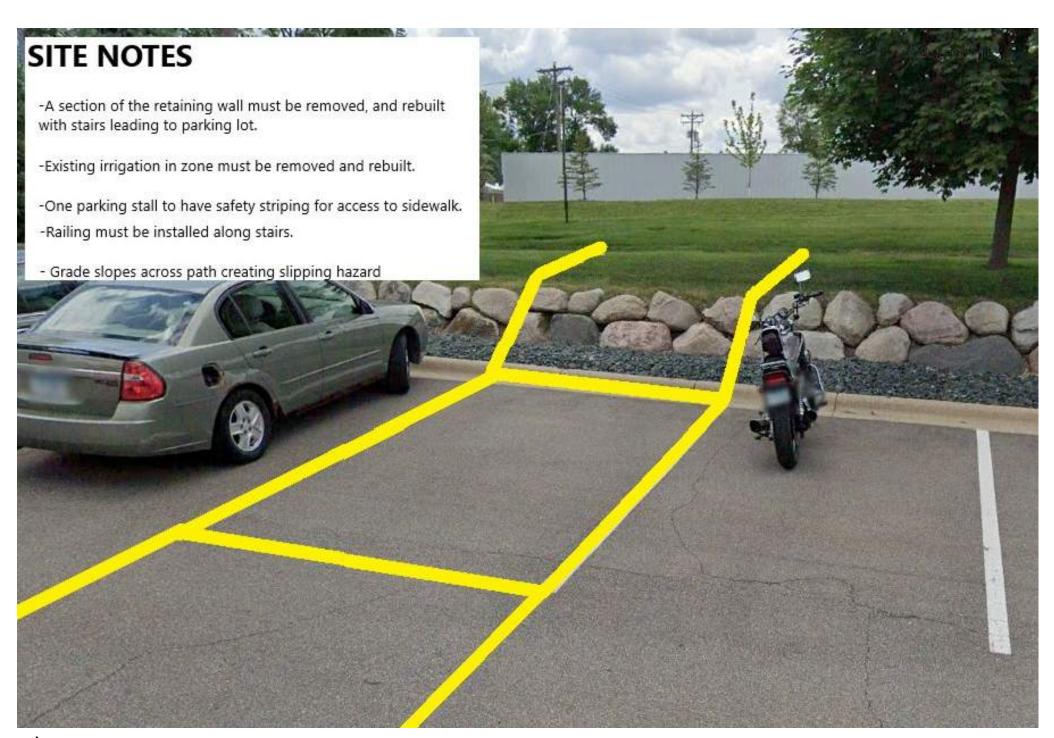
C: Steve Hoyt, MSP South Investment LLC Tom Kendall, Kendall Commercial

makegard













# **Comment Summary**

**Application #:** PL2021-193

**Address:** 9555 James Avenue South, Bloomington, MN 55431

Request: Change of Condition in Case #PL2021-109 for a required sidewalk connection serving a

taproom and restaurant located within an existing multi-tenant office/warehouse

building.

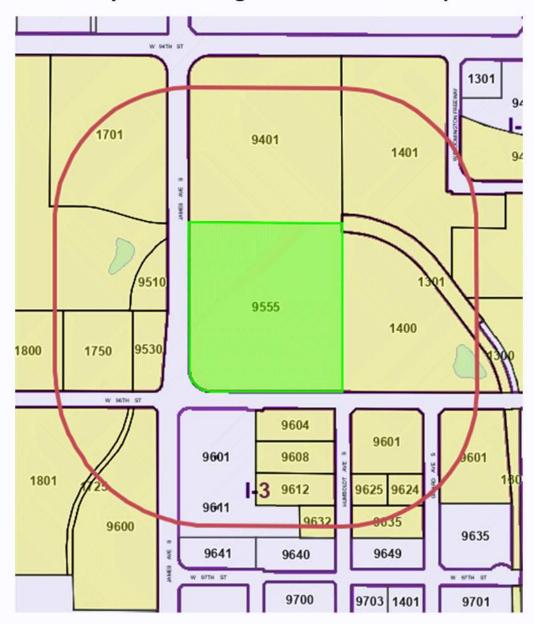
Meeting: Planning Commission – October 14, 2021

# NOTE: All comments are not listed below. Please review all plans for additional or repeated comments.

Public Works Review Contact: Brian Hansen at bhansen@BloomingtonMN.gov, (952) 563-4543

1) Consider pavement markings or other treatments to provide guidance to pedestrians entering/exiting the site.

# **City of Bloomington Notification Map**



### Case PL2021-193

Address: 9555 James Avenue South

Notification Boundary (500 feet)
Subject Property/Properties
Notified Properties



#### AFFIDAVIT OF PUBLICATION

STATE OF MINNESOTA ) ss COUNTY OF HENNEPIN

Karen Nelson being duly sworn on an oath, states or affirms that he/she is the Publisher's Designated Agent of the newspaper(s) known as:

#### SC Bloomington Richfield

with the known office of issue being located in the county of:

#### HENNEPIN

with additional circulation in the counties of: HENNEPIN

and has full knowledge of the facts stated below:

- (A) The newspaper has complied with all of the requirements constituting qualification as a qualified newspaper as provided by Minn. Stat. §331A.02.
- (B) This Public Notice was printed and published in said newspaper(s) once each week, for 1 successive week(s); the first insertion being on 09/30/2021 and the last insertion being on 09/30/2021.

MORTGAGE FORECLOSURE NOTICES
Pursuant to Minnesota Stat. §580.033
relating to the publication of mortgage
foreclosure notices: The newspaper complies
with the conditions described in §580.033,
subd. 1, clause (1) or (2). If the newspaper's
known office of issue is located in a county
adjoining the county where the mortgaged
premises or some part of the mortgaged
premises described in the notice are located,
a substantial portion of the newspaper's
circulation is in the latter county.

By: Karen Jelson
Designated Agent

Subscribed and sworn to or affirmed before me on 09/30/2021 by Karen Nelson.

Darlar h Marherm Notary Public



Rate Information:

(1) Lowest classified rate paid by commercial users for comparable space:

\$34.45 per column inch

Ad ID 1170475

#### CITY OF BLOOMINGTON NOTICE OF PUBLIC HEARING BY THE PLANNING COMMISSION

Bloomington Commission will hold a public hearing on October 14, 2021, 6:00 PM in the Council Chambers at Bloomington Civic Plaza, 1800 West Old Shakopee Road, Bloomington, Minnesota, and by electronic means as provided by State law, to consider Case PL2021-193, an application by MSP Southtech Investment LLC and Nine Mile Brewing Company for a change of condition in Case PL2021-109 for a required sidewalk connection serving a taproom and restaurant located within an existing multi-tenant office/ warehouse building at 9555 James Avenue South.

Review information and materials at <a href="https://www.blm.mn/notices">www.blm.mn/notices</a>. For more information or to submit comments, contact Nick Johnson, Planner, at (952) 563-8925 or nmjohnson@BloomingtonMN.gov.

Published in the Sun Current September 30, 2021 1107475



# **Planning Commission Item**

Originator Planning	Planning Commission Policy and Issue Update
Agenda Section Item 4	October 14, 2021

Requested Action:

Receive staff updates and identify issues.

Description:

- 1. Updates to the Planning Commission from Staff.
- 2. Planning Commission Issue Identification.