



City of Blaine

City Council Workshop

December 11, 2023 | 5:30 PM
Blaine City Hall
10801 Town Square Drive NE
Blaine, MN 55449

AGENDA

NOTICE OF WORKSHOP MEETING

In accordance with the provisions of Section 3.01 of the Blaine City Charter, a Council Workshop meeting is scheduled for the following purpose:

1. Call to Order

2. New Business

- 2.1.** 2023-642 Closed Session Pursuant to Minn. Stat. Section 13D.05 Subd. 3(d) for Security Briefing Relating to Council Chambers and Council Workshops
Sponsors: Tom Loonan, City Attorney, Brian Podany, Safety Services Manager/Police Chief
- 2.2.** 2023-632 Closed Session Pursuant to MN Statute Section 13D.05, Subd. 3(b) Attorney Client Privileged Discussion Regarding Pending Litigation
Sponsors: Tom Loonan, City Attorney
- 2.3.** 2023-633 Budget Update
Sponsors: Jason Zimmerman, Finance Director
- 2.4.** 2023-601 Concept Plan and Ordinance Discussion Related to Self-Storage for 8634 Central Avenue
Sponsors: Sheila Sellman, City Planner
- 2.5.** 2023-583 MWF Development Proposal at 9550 Central Avenue
Sponsors: Elizabeth Showalter, Community Development Specialist
- 2.6.** 2023-540 99th Avenue and 101st Avenue Traffic Study
Sponsors: Daniel Schluender, Director of Engineering
- 2.7.** 2023-604 105th Avenue Redevelopment Financial Discussion

Sponsors: Erik Thorvig, Community Development Director

- 2.8.** 2023-625 Review State and Federal Lobbying Contracts and Update Current Legislative Agenda

Sponsors: Michelle Wolfe, City Manager

3. Other Business

4. Adjournment



City of Blaine Staff Report

File Number: 2023-642

Agenda Date

December 11, 2023

Status

In Control

City Council

File Type

Workshop Item

New Business - Tom Loonan, City Attorney

Agenda Item # 2.1

Closed Session Pursuant to Minn. Stat. Section 13D.05 Subd. 3(d) for Security Briefing Relating to Council Chambers and Council Workshops

Background

Staff Recommendation

Questions for Council

Attachment List

None



City of Blaine Staff Report

File Number: 2023-632

Agenda Date

December 11, 2023

Status

In Control

City Council

File Type

Workshop Item

New Business - Tom Loonan, City Attorney

Agenda Item # 2.2

Closed Session Pursuant to MN Statute Section 13D.05, Subd. 3(b) Attorney Client Privileged Discussion Regarding Pending Litigation

Background

Staff Recommendation

Questions for Council

Attachment List

None



City of Blaine Staff Report

File Number: 2023-633

Agenda Date

December 11, 2023

Status

In Control

City Council

File Type

Workshop Item

New Business - Jason Zimmerman, Finance Director

Agenda Item # 2.3

Budget Update

Background

If needed, staff will provide brief budget updates in preparation for the December 18 meeting.

Staff Recommendation

Questions for Council

Attachment List

None



City of Blaine Staff Report

File Number: 2023-601

Agenda Date	Status
December 11, 2023	
In Control	File Type
City Council	Workshop Item

New Business - Sheila Sellman, City Planner

Agenda Item # 2.4

Concept Plan and Ordinance Discussion Related to Self-Storage for 8634 Central Avenue

Background

The subject site is comprised of three parcels that contain a commercial building (Uram Insurance) and vacant land. The existing building was built in 1972.

The three properties are under the same ownership. One property (8628 Central Avenue) is zoned Single Family Residential (R-1) and guided Low Density Residential (LDR) in the Comprehensive Plan. The property does not have street frontage and is only developable when combined with the parcel that fronts the Central Avenue frontage road. The property at 8634 Central Avenue is split between two zoning classifications, Community Commercial (B-2) and R-1, but is entirely guided Community Commercial. The third property abuts the Central Avenue frontage road and is zoned B-2 and guided Community Commercial.

The property to the north is developed with a multi-tenant commercial building (Batteries Plus and a salon) and the parcel to the south is also developed with a commercial building (Caliber Collision). The parcels to the west are single-family residential.

History

In 2017/2018, the City was working with the subject property owner to develop the property where Caliber Collision is located along with his property. At that time, the EDA owned the land where Caliber Collision is. A project that involved multiple properties did not come to fruition and the EDA sold the land to Caliber Collision. Autobody use is conditionally permitted in the B-2 zoning district and a Conditional Use Permit (CUP) was granted for the project. There is mention in the applicant's narrative about setbacks and architectural standards not being met. Below are excerpts from the staff report for the CUP approval in 2018:

The B-2 Zoning District does have specific standards for major auto repair businesses. One of the requirements is to provide a 75-foot setback between any residentially zoned property and the

major auto repair facility. The property to the west of this site is zoned R-1 (Single Family), so the building setback on that side of the property is 100 feet according to the normal setback requirements of the B-2 section of the Zoning Ordinance.

The site has two front yards (south and east) because of the curve in the service road making this effectively a corner lot, and two side yards (north and west) as defined by the Zoning Ordinance. The City's buffer yard flexibility landscaping requirements allows a reduction (no variance required) in the side yard 100-foot setback in 5 foot increments, all the way down to 25 feet. In this instance, the 75-foot setback is being met based on this use, so the buffer yard flexibility landscaping requirements will be applied to this area for the reduction in the 100-foot setback to 75 feet. This will require additional landscaping to be placed in this buffer area. All other B-2 setbacks are being met as well for the building and parking areas.

The building will consist of split face block, EIFS, brick, glass and metal. The site needs to meet the Highway 65 Overlay District requirements for building materials. This ordinance states that 50% of the building must consist of upgraded materials such as brick, stone, glass, stucco (EIFS) or other similar materials. It appears although the building meets this requirement, however as part of the site plan approval process, the applicant will need to provide percentages of the materials used on the building to ensure this requirement is being met. There are no overhead doors on the east, north or west sides of the building as all overhead doors face the south. The building requirements were confirmed with the site plan approval.

Additionally, the narrative references one of the parcels owned by the applicant being landlocked as a result of the EDA selling property. The property lines did not change for the Caliber Collision project and the parcel referenced in the narrative never had street frontage. It can be combined with other parcels owned by the applicant and incorporated into a development.

On March 13, 2023, the subject property was discussed at a city council workshop due to various inquiries that staff were receiving regarding multifamily housing (apartments). The City Council provided direction that there was no interest in rezoning or changing the land use to allow for multifamily housing. This information was shared with the listing agent and property owner. The narrative states that a multifamily proposal would not have staff support. However, this direction was given by the City Council at a workshop.

In June/July 2023, staff was provided a concept redevelopment plan by the owner which would redevelop the whole site with an office, car wash and storage facility. The property owner was informed that a storage facility is not allowed in the B-2 zoning district. In 2020, the city council completed significant changes to the zoning ordinance, which included eliminating storage facilities from all commercial zoning districts and only permitting them in the I-2A Heavy Industrial zoning district. In general, the City Council at that time felt that these types of facilities were not appropriate along Highway 65 and in the Northtown area, which are predominately zoned commercial.

Staff informed the owner that if they desired this use, it would require a zoning code amendment to allow storage facilities. Because the self-storage use would require a legislative change by the City Council, the project was presented to the City Council in a workshop to gauge interest before a formal application is submitted.

On September 6, 2023, the property owner presented a mixed-use concept for his site that included self-storage, an office and a car wash. The consensus from a majority of the Council was to not change the B-2 district to allow for self storage. Minutes from that meeting are attached. On that same night, a moratorium on car washes was adopted at the regular city council meeting.

Proposal

In October, the property owner met with staff and council members to discuss options to allow self-storage on the property. He requested to present at workshop again.

The applicant is seeking feedback on a text amendment to allow self-storage as a conditional use in the B-2 district or potential for a new overlay district be created that would allow self-storage as a conditional use. The attached narrative provides potential language for an ordinance amendment. The revised site plan shows an office fronting on Central Avenue with a self-storage facility in the back. There is a freestanding coffee shop shown on the north side of the site. It is unclear if the building is taller than one-story, however the submitted photos are of two-stories or more.

Ordinance Amendment

If the council approves an ordinance amendment to allow self-storage in the B-2 district, this would be allowed for all parcels that are zoned B-2 (see attached map). That being said, the ordinance can be written in a way that will limit the locations. For example:

- Self-storage must be part of a mixed-use project with a minimum of XXX square feet of other commercial use not related to the operations of the storage facility.
- Storage units must be climate controlled.
- The self-storage must be located in the rear of the property and not adjacent to Highway 65.
- No self-storage facility may be located within 1,000 feet of another storage facility.
- Buffer to residential (greater setback).
- At least 75 percent of all exterior wall finishes shall contain at least three of the following materials with all materials being present on each elevation: brick, natural or cultured stone, glass, stucco, cementous siding, architectural metal. All buildings to incorporate a four-sided design.

Overlay/New Zoning District South of Highway 10 along Central Avenue

The Highway 65 Overlay District (HOD) currently exists in code today. This district is intended to establish minimum standards for exterior architecture, design, landscaping, and signage of buildings. This overlay district does not have specific uses listed and relies on the underlying zoning. If the Council would like staff to explore creating a new district for the area south of Highway 10 along Central Avenue, the new district would list permitted and conditional uses and provide development parameters. The intent would be similar to HOD in that the standards would ensure coordinated design of building exteriors, additions and accessory structure exteriors in order to prevent visual disharmony, minimize adverse impacts on adjacent properties from buildings which are or may become unsightly, and buildings that detract from the character and appearance of the area. This overlay/new zoning district would anticipate redevelopment, lot sizes and dimension of the area.

Regardless, given the inconsistent zoning and land use designation of the three properties as referenced in the narrative, if/when a formal development proposal is submitted, staff would

recommend the zoning and land use be consistent for all three parcels. This change can be considered at the time of proposed development or done prior to development.

Staff Recommendation

Provide direction on whether self-storage should be allowed outside of the I-2A zoning district. If so, provide direction on amending the B-2 district to allow self-storage as a CUP or to create a new zoning/overlay district for the commercial properties along Central Avenue south of Highway 10.

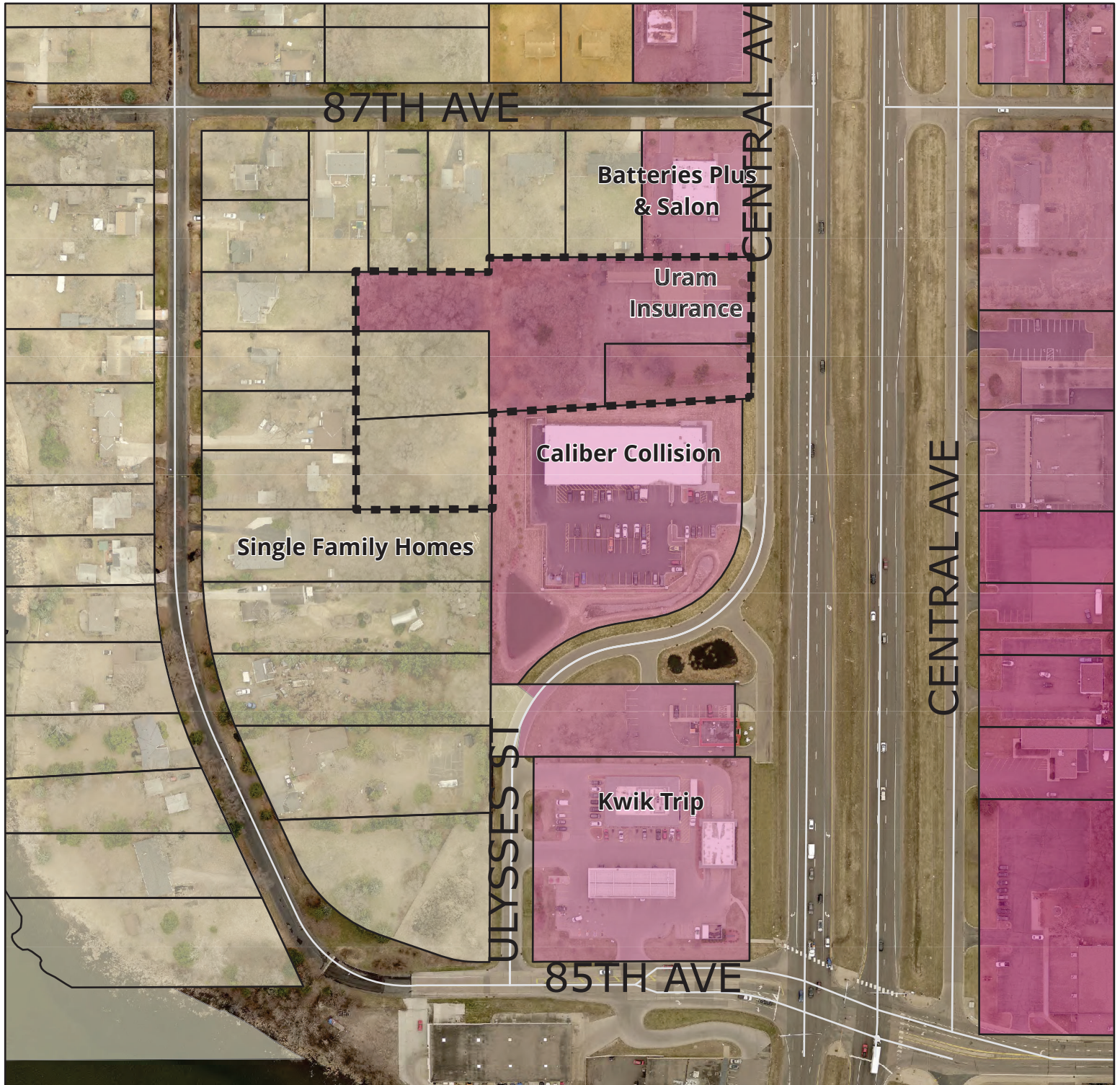
Questions for Council

1. Do you want to allow self-storage facilities in other districts than I-2A?
 - a. Would you support an ordinance amendment to the B-2 district to allow self-storage as a conditional use?
 - b. Do you want staff to look into creating a new zoning district or overlay district for the commercial properties along Central Avenue south of Highway 10?

Attachment List

1. Attachments
2. September 6 Workshop Minutes

8634 Central Ave



Zoning

- | | |
|--|---|
|  B-2 - Community Commercial |  R-1 - Single Family |
|  B-3 - Regional Commercial |  R-2 - Two Family |

measure

DATE: November 22, 2023
TO: Sheila Sellman
FROM: Josh McKinney, PLA
SUBJECT: 8634 Central Avenue Re- Development

Summary:

Scott Uram, property owner of 3 connected parcels totaling approximately 3.13 acres located at 8634 Central Avenue is seeking feedback for a proposed zoning text amendment or potential overlay district which would allow the council to approve self storage as a Conditional Use within the B-2 Community Commercial District.

The owner of this site has continued discussions with City staff and some council members regarding various mechanisms to allow a storage use while limiting the prevalence and expansion of that use to the entire City. The owner of the parcel continues to believe that given the parcel shape, site access, and market conditions that a mix of uses, including storage, provides the highest and best use for the site.

Site History:

This site has a colorful recent history that contributes to the current hardship experienced by the property owner.

The Blaine EDA owned an 2.46 acre adjacent parcel located at 8620 Central Avenue and was marketing this site in 2017 and 2018. Mr. Uram was working on a separate development deal on his property at that same time, and in fact was actively working with the EDA to pursue a joint development including the EDA parcel along with his own land.

According to City emails, the City abruptly left those discussions to sell to the Current owner, which sought and received a Conditional use permit for their collision center structure. The construction of this building, which does not meet required setbacks or architectural standards of the B2 District along with the limited nature of viable development opportunities on the subject parcels leaves the owner with limited options to pursue, and also landlocked one of the parcels owned by Mr. Uram.

Additionally, in 2020 the City Council amended the zoning code to only allow storage in I-2 Industrial districts.

Other uses which have been reviewed and deemed economically unfeasible include:

- Hotel
- Medical Office
- Taproom/Brew Pub
- Restaurants
- Retail

Mr. Uram has also considered a re-zoning & re-guidance to allow for a multifamily apartment building, but was told that use would not have staff support.

Existing Zoning & Comprehensive Plan Guidance

There is a need for zoning and comprehensive plan changes to facilitate any development on this parcel. There are parcels which likely should have been reguided during the last comprehensive plan development cycle and make this site difficult to develop by right.

Zoning

- The subject site has two parcels zoned B-2 Community Commercial, and one parcel zoned R-1 Single Family. The Single Family Parcel does not have ROW frontage and will need to be rezoned to support any commercial use.

Comprehensive Plan

- The subject site has one parcel guided for Community Commercial, one parcel guided for Low Density Residential and the largest parcel split by both Community Commercial and Low Density Residential.

Zoning Text Amendment

In previous Discussions with Staff, and after receiving feedback from Council at a work session, our team researched numerous self storage ordinances from around the metro area in an effort to both aid the discussion, but also provide a way to restrict storage uses by adding language that creates a high standard for that use. Among the potential limitations:

Self Storage is subject to the following additional requirements in order to be considered as a part of a conditional use permit:

- a. Self Storage must be a part of a mixed use project with a minimum of 3,000 square feet of retail or commercial use not related to the operations of the storage facility*
- b. 100% of the storage units must be climate controlled.*
- c. The primary facade must include at least 40% class 1 materials (Glass, Brick, Stone, Decorative Metal)*
- d. No Self Storage Facility can be located within 2,500' of another permitted storage facility.*
- e. Minimum Floor Area Ratio (FAR) is .75 and the maximum FAR is 2.0. Where the district has a maximum height, that height maximum will prevail.*
- f. Landscape Screening and Buffering at 1.5x the base requirements for the B-2 District.*

Here is an explanation for what each requirement attempts to restrict:

a. Mixed Use Project

This requirement restricts single use buildings which may otherwise limit the benefit to the general public. While self storage could be a primary use by square footage, the secondary uses could be some form of commercial or retail which could benefit from the B-2 district, albeit at a much smaller footprint than would otherwise would be required in order to maximize the land use of a given parcel.

b. Climate Controlled

Eliminates low quality building construction often associated with self storage uses.

c. Facade Materials

Further eliminates low quality construction and mandates that the primary facade of the building would be attractive. This percentage of high quality materials would exceed most retail & office uses typical to the B-2 district.

d. Location Limitation

This requirement severely limits the ability for storage uses to proliferate throughout the city by limiting the parcels that would be allowed to be considered for that use.

e. Minimum Floor Area Ratio

This requirement would mandate that the storage facilities located within the B-2 District be multistory structures. If a site were 2 acres in size (87,320 square feet) the building square footage would need to be 65,340 square feet at minimum. With parking/stormwater/setbacks/ required landscaping included this building would likely be 2 or 3 stories in height to accommodate this regulation. The maximum building height for the district would override the maximum floor ratio.

f. Landscape and Screening

This requirement would help buffer the use at an increased rate to adjacent parcels.

Overlay District

Another potential way Council could allow a storage use, while limiting the prevalence throughout the City is by way of an overlay district for a certain portion of Blaine.

With the redevelopment of the Northtown Mall area imminent, we feel that the southern portion of Blaine (South of Highway 10) may serve as a natural break for an overlay district which allows for more flexibility in the placement of storage, as the use is complementary to the many units of multifamily housing which would be developed as a part of that project. Many of the same design principles found in the Zoning Text Amendment section above could also be relevant restrictions for an overlay district.

Proposed Project Example

Mixed Use Storage Concept

- The proposed concept would combine a commercial use on a portion of the main level with a self storage use for the remainder of the building. Additionally, there may be a potential to develop a small restaurant/drive thru pad on a portion of the site. The inclusion of the coffee user is highly contingent on the frontage road having adequate access to Central.
- Architecturally, this proposed building would be consistent with what the council has approved in the adjacent collision center., but with a facade that faces Central containing Class 1 materials such as glass, stone and decorative metal.
- A market study has deemed there to be a significant need for storage within the Blaine area.
- This use would still allow for a buffer area to the adjacent homes while still allowing for all of the parcels to be utilized to what our team believes is the highest and best use for this site.
- The developer intends to use rooftop solar to offset electricity needs for the facility, as well as look into other green energy & construction methods.



CITY ZONING
B-2 - Community Commercial

FRONT SETBACK - 50'
SIDE - 20'
SIDE @ CORNER LOT - 50'
SIDE @ RESIDENTIAL - 100'

REAR - 20'
REAR @ RESIDENTIAL - 100'

PARKING SETBACKS
FRONT / CORNER - 30'
SIDE - 10'
REAR - 10'

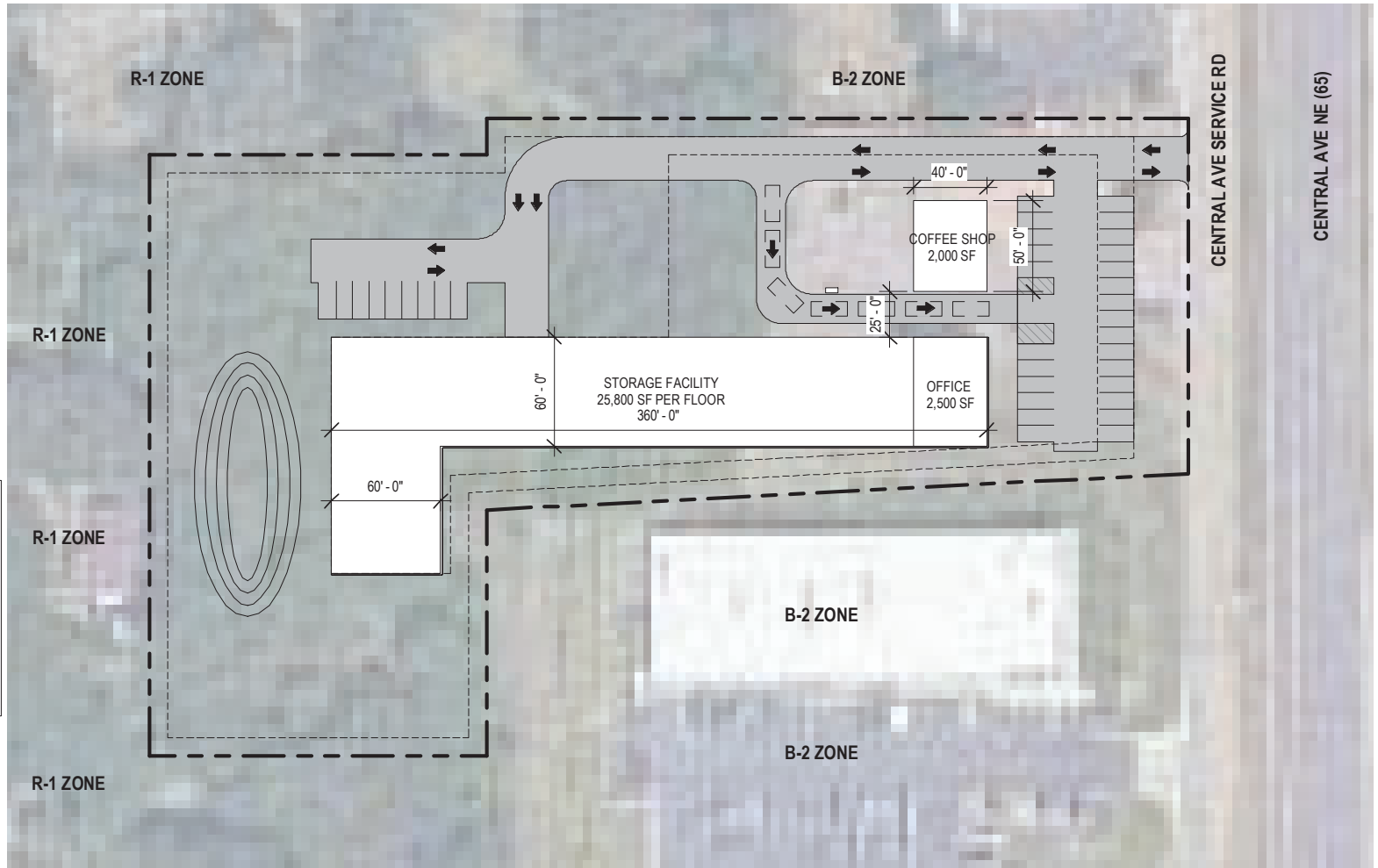
MAX BUILDING HEIGHT - 3 STORIES OR 50 FT

PARKING

BUSINESS AND PROFESSIONAL OFFICES OR
PUBLIC ADMINISTRATION BUILDINGS: AT
LEAST ONE (1) PARKING SPACE FOR EACH
TWO-HUNDRED-FIFTY (250) SQUARE FEET OF
FLOOR AREA

SELF STORAGE FACILITY: MINIMUM OF FIVE
(5) SPACES

AUTOMOBILE REPAIR: FOUR (4) PARKING
SPACES

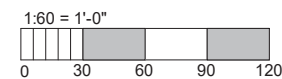


BLAINE MIXED-USE

8634 CENTRAL AVE NE

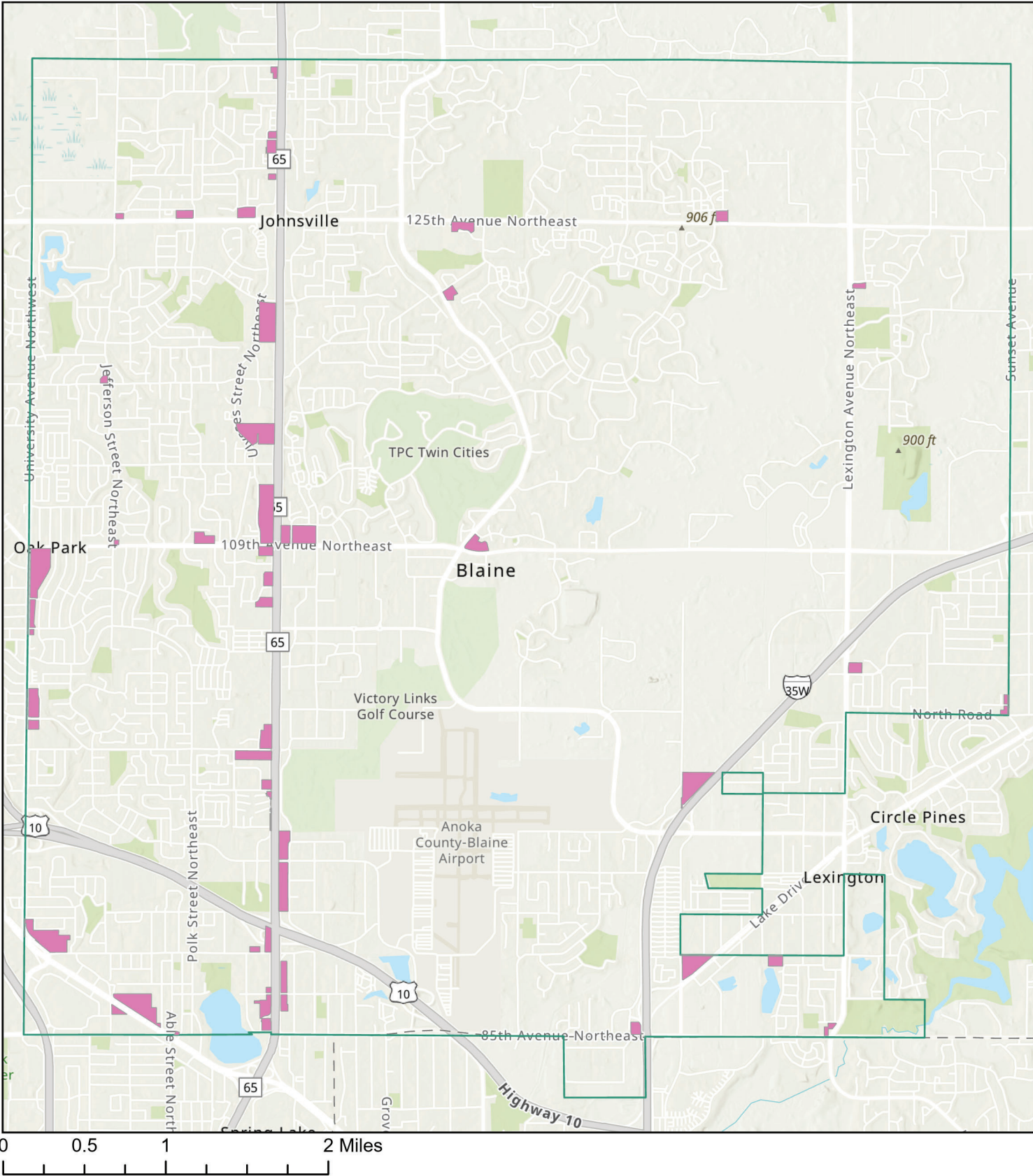
BLAINE, MN 55434

1
1-08 SITE CONCEPT OPTION B
1" = 60'-0"





B-2 Properties



- B-2 - Community Commercial
- City Border Line



City of Blaine

City Council Workshop

September 6, 2023 | 5:30 PM
Blaine City Hall
10801 Town Square Drive NE
Blaine, MN 55449

MINUTES

NOTICE OF WORKSHOP MEETING

In accordance with the provisions of Section 3.01 of the Blaine City Charter, a Council Workshop meeting is scheduled for the following purpose:

1. Call to Order

The meeting was called to order at 5:30PM.

PRESENT: Mayor Tim Sanders (arrived at 5:43 PM), Councilmembers Terra Fleming, Leslie Larson, Chris Massoglia, Tom Newland, Jess Robertson, and Lori Saroya.

ABSENT: None.

Quorum Present.

ALSO PRESENT: City Manager Michelle Wolfe; Community Development Director Erik Thorvig; City Planner Sheila Sellman; Police Captain Russ Clark; Finance Director Jason Zimmerman; Director of Engineering Dan Schluender; Senior Parks and Recreation Manager Jerome Krieger; City Attorney Tom Loonan; and City Clerk Catherine Sorensen.

2. New Business

- 2.1.** 2023-386 Zoning Discussion for 8643 Central Avenue NE.
Sponsors: Sheila Sellman, City Planner

City Planner Sellman stated the subject site is comprised of three parcels that contain a commercial building (Uram Insurance) and vacant land. The existing building was built in 1972. The three properties are under the same ownership. One property (8628 Central Avenue) is zoned R-1 (Single Family Residential) and guided Low Density Residential in the Comprehensive Plan. The property does not have street frontage and is only developable when combined with the parcel that fronts the Central Avenue frontage road. The property at 8634 Central Avenue is split between two zoning classifications, B-2 (Community Commercial) and R-1, but is entirely guided Community Commercial. The third property

abuts the Central Avenue frontage road and is zoned B-2 and guided Community Commercial. The property to the north is developed with a multi-tenant commercial building (Batteries Plus and a salon) and the parcel to the south is also developed with a commercial building (Caliber Collision). The parcels to the west are single-family residential. Staff explained the applicant was proposing self storage for these properties and requested feedback from the council on how to proceed.

Scott Uram, property owner, explained he has been in this building since 1996 and was born in Blaine. He stated he was trying to do something different with this space, while trying to appease Blaine. He reported he was proposing to use solar, recycle water and offer electric charging stations.

Josh McKinny, development consulting firm representative, thanked staff for the presentation. He understood there was some consternation regarding self-storage and car wash uses. He commented on the uses that would be allowed on site which included a pet daycare. He asked the council to consider if self-storage was an appropriate use in the B-2 zoning district for this property. He explained they were not proposing a one-story building that would be surrounded by chain link fencing but a high quality self-storage product.

Councilmember Larson asked if the storage facility would be multi-level. Mr. McKinny reported this was the case. He commented further on the architectural plans for this facility and noted a similar climate-controlled self-storage facility exists on Central Avenue north of this project.

Councilmember Robertson questioned what the current and applicable uses would be for this site. Ms. Sellman reviewed the permitted uses for this property which included a salon, dry cleaning, professional offices, fitness, art studio, retail, banks, brew pubs, repair services, medical, cannabis dispensary, along with a list of conditional uses.

Mr. Uram stated the list of uses was not feasible from a marketability standpoint. He reported he looked at a hotel, but the site's shape and layout didn't lend itself to that use.

Councilmember Newland questioned how much of the city was zoned B-2. Ms. Sellman indicated the majority of the properties along Highway 65 were zoned B-2 or B-3, along with the properties along 125th.

Councilmember Newland stated by changing the allowed uses for the B-2 zoning district, this would make self-storage an allowed use up and down the TH65 corridor and along 125th. He explained this was the reason the zoning code was amended to limit self-storage to the heavy industrial zoning district. He reported it was the desired intent of the past city council to not allow self storage in the B-2 and B-3 zoning districts and he supported this recommendation going forward.

Councilmember Massoglia thanked the developer for his presentation and for sharing his thoughts with the council. He commented on how the council was working to elevate the TH65 corridor. He reported he would be more favorable to the conditional uses for this B-2 property and would not support self storage. He stated he wanted to help the developer find a use but noted now was not the time to add a use back into the B-2 zoning district.

Councilmember Saroya indicated she was new to the council and explained she lived not too far from this area. She asked if Mr. Uram's office would be removed from the development. Mr. Uram explained his office would be moved to the front of the proposed self-storage building.

Councilmember Saroya questioned if the applicant had looked into putting a restaurant on this site. Mr. Uram stated he had and noted this was not the right site for a restaurant.

Councilmember Saroya inquired if this property would work for a coffee shop. Mr. McKinny reported because this property did not have direct or right-in/right-out access to TH65 a coffee shop would be challenging. Mr. Uram noted 3.3 acres was quite large for a coffee shop.

Councilmember Saroya suggested the applicant consider creating a co-working space with a coffee shop noting there was a large number of Blaine residents working from home now. Mr. Uram commented on how he has been evaluating uses for this property since 2021 and has been unable to identify other uses.

Councilmember Newland indicated he supported the secondary use as a car wash. Mr. Uram commented he was proposing a full service car wash that would accommodate larger vehicles that would also have EV stations. He stated he would like to keep a business in Blaine, given the fact he has had his business in Blaine since the 1990s.

Councilmember Fleming reported this was a unique and difficult piece of land to develop. She explained she was new to the council. She stated she appreciated the fact the storage would go deeper into the site and not be visible from TH65, but rather the frontage along the corridor would be professional and office-like. She indicated she was not against car washes, but supported them when put in appropriate places.

Councilmember Larson questioned if the self storage would be in an "L" shape. Mr. Uram reported this was the case. He commented further on the proposed self-storage site plan, noting the location of the uses, existing trees and adjacent homes.

Councilmember Saroya stated it appears self-storage was a quiet use, which would be nice given the fact this property abuts residential homes. Mr. Uram indicated this was the case.

Councilmember Saroya asked if self-storage was allowed in this area, would it have to be allowed on all B-2 properties. Ms. Sellman explained if the council approved an ordinance amendment, self-storage would be allowed on all B-2 properties in Blaine. She reported the only way to allow self-storage on this property would be to rezone it Heavy Industrial (I-2A).

Mr. McKinny encouraged the council to consider allowing self-storage as a conditional use. He explained this would allow the city council to put parameters in place regarding the use. Mr. Uram commented on the numerous restrictions that were placed on Caliber Collision when approved as a conditional use.

Mayor Sanders questioned how the council should move forward with this item. Ms. Sellman questioned if there was consensus of the council to support changing the B-2 zoning district to allow self-storage.

Councilmember Robertson indicated she was the only councilmember on the council when the zoning was changed along TH65. She stated there was an influx of requests for mini storage and the city was getting push back from residents. She reported the only mechanism the council has in place to steer development was zoning. She stated she would not be in favor of amending the zoning code at this time because it would open up the entire TH65 corridor for self-storage.

Mayor Sanders thanked the applicant for bringing forward a proposal that would elevate Blaine. He explained he appreciated the applicant's investment in Blaine over the years. However, he reported the consensus of the council was not to support an amendment to the B-2 zoning district at this time.

Council consensus was to not support amending the ordinance to allow public storage facilities for the B-2 Community Commercial zoning district.

2.2. 2023-385 Zoning Ordinance Discussion for Northtown Redevelopment Area (Part 1)
Sponsors: Sheila Sellman, City Planner

Ms. Sellman stated the city council has discussed land use in the Northtown area at various workshop meetings this year. The land use plan guides at a high level the type of development (commercial, residential, mixed use, etc), and the zoning ordinance specifically identifies what uses are allowed and the bulk zoning requirements (setbacks, height, etc). The adopted Northtown Redevelopment Vision Plan provides actions steps. One of the short-term action steps (1-5 years) is to "Change Zoning to Mixed-Use" and states "Existing zoning in the study area is predominately defined as Regional Commercial (B-3). The city should act to change the zoning in the district to allow a greater mix of land uses, including residential, commercial, and civic." Staff noted the discussion of the council should focus on uses and development parameters so staff can draft a new mixed use district for the Northtown Area.

Councilmember Newland asked how the new mall ownership was responding to the proposed changes surrounding the Northtown Mall. Ms. Sellman explained she spoke with the new owners and they do have an idea of what they would like to do in the Northtown area. She noted they would like to keep the Community Commercial zoning in place, along with quick service restaurants as well as a hotel and convenience store without gas.

Further discussion ensued regarding the allowed and conditional uses for areas guided commercial in the the Northtown Area. Staff described how they were proposing to create a whole new zoning ordinance for the Northtown Area, similar to what was done for the 105th Redevelopment Area.

Councilmember Massoglia supported the city creating a new zoning district for the whole mall area, with the outlying areas being zoned to line up with the comp plan. Ms. Sellman reported in order to remain consistent with the plan that was adopted for the Northtown Area, the zoning would have to be changed for the outlying areas.

City Attorney Loonan discussed how all current businesses would be allowed to remain in operation as legal non-conforming uses and would only cease to operate if the business stopped for one year.

The council supported general retail, banks, brew pubs, restaurants, personal services (including massage), dry cleaning and laundry, repair (excluding vehicle repair), business and professional offices (including medical), personal instruction services and fitness (4,000 square feet), portrait and art studio, medical cannabis dispensary, tap room, amusement and recreation, gas station without car wash, bowling alleys, dance hall, daycare centers, specialized educational uses (tutoring), meeting and event space, hotels, private clubs, restaurants with live entertainment, off sale liquor stores, places of worship, and skating rinks in the Northtown Area.

The council did not support animal hospital, vehicle sales lot, minor auto repair, boat sales and display, car washes, contractors yard, schools or charter schools, manufactured home sales lot, recreational vehicle lot and sales office, small equipment rental, adult uses, domestic animal uses, major auto repair, funeral homes, vehicle rental with 15 cars onsite, and vocational/trade schools in the Northtown Area.

Mayor Sanders stated he supported smaller gym type uses in the Northtown Area but wanted to move away from the larger fitness uses.

Councilmember Massoglia expressed concern with the fact the council was not supporting minor auto repair and car dealerships for this area. He supported some of the outlying properties allowing for auto repair.

Mayor Sanders stated he was thinking long term and wanted to see elevated uses in this area that supported the vision for the Northtown Area. He hoped the entire area would have more mixed use and retail that was amenity driven over the next 30 years.

Councilmember Newland supported removing auto uses for now and noted the council could bring this back in the future if it made sense.

Councilmember Larson indicated she could support an Aveda trade school in the Northtown Area and noted this type of use would create additional commerce for the area. Ms. Sellman stated she would look at the language to see how it could be amended to support non-industrial trade schools.

Council provided feedback on uses for the new zoning district and directed staff to compile responses for further review at the next workshop.

3. Other Business

City Manager Wolfe shared updates and calendar invitations with the council. She explained the painting of the freedom rock in Veterans Memorial Park would occur over the next several weeks. She then welcomed new Finance Director Jason Zimmerman to the city of Blaine.

Council reviewed agenda order of items for the upcoming council meeting.

4. Adjournment



Signed by 

Tim Sanders, Mayor

Signed by 

Catherine M. Sorensen, CMC, City Clerk

The Workshop was adjourned at 6:56 PM.



City of Blaine Staff Report

File Number: 2023-583

Agenda Date	Status
December 11, 2023	
In Control	File Type
City Council	Workshop Item

New Business - Elizabeth Showalter, Community Development Specialist

Agenda Item # 2.5

MWF Development Proposal at 9550 Central Avenue

Background

Request

Staff was approached by MWF Properties, a multifamily housing developer about property at 9550 Central Avenue. They are requesting feedback on a comprehensive plan amendment and a financial request related to affordable housing. This proposal is being brought to workshop in accordance with the policy that all comprehensive plan amendment applications are reviewed at a workshop prior to formal application, and the consensus by the City Council at the May 22, 2021 retreat to consider financial requests related to affordable or workforce housing on a case by case basis, starting with a workshop discussion. Feedback at the Council Workshop is advisory in nature and can be used by the developer to determine whether to move forward with formal applications, which would include the required neighborhood meeting and public hearing. Alternatively, if the feedback isn't positive, the developer may choose to abandon the project.

Background

The property located at 9550 Central Avenue and owned and operated by Matt's Homes, a manufactured home dealer. The property has long been used as a sales lot, selling manufactured homes that are then transported to home sites. In recent years, there has been little inventory kept on site. In 2021, the property owner brought a proposal to the City Council for a townhome development. The consensus at that meeting was for the property owner to move forward with the proposal with the understanding there would be risks as that the future of the Highway 65 corridor was unknown. Additional concerns raised by councilmembers at that meeting included: the small size of the townhome development being able to maintain private roads; the need for well-designed landscaping; and noise issues by adding residential in close proximity to Highway 65. The property owner has not moved forward with the townhome proposal.

Land Use and Zoning

The property is currently guided Manufactured Home Residential (MHR) and zoned Manufactured

Home (R-4). The permitted and conditional uses in that district are manufactured home parks, manufactured home sales lots and offices, home-based businesses, and home daycare. MWF is proposing a 102 unit apartment building, which would have a net density of 38 units per acre, which would require the property to be reguided to High Density Residential 2 (HDR2) allowing densities of 12-60 units per acre (HDR allows 12-25 units per acre).

The property would also need to be rezoned for this proposed project. The Planned Business District (PBD) or Development Flex (DF) District could be considered for rezoning. The PBD was used for the two apartment buildings south of the site and allows for apartments as a conditional use with set standards for setbacks, building materials, etc. DF does not have set standards and the City Council would establish standards through a Conditional Use Permit (CUP). In both cases, the City Council could place additional parameters on the development to meet the criteria for granting a CUP. These could include stipulations on balconies, building materials and design, and site layout. Examples of architecture are included in the applicant's submittal. The applicant is open to feedback from the Council on design preferences.

The building is proposed to be four stories above a half story of parking (due to water table). This is the same as the nearby Berkshire Central Apartments, and half a story higher than the Arris Apartments.

Financial Request

The applicant is proposing this project as a workforce housing project that would have set rent levels tied to various proportions of the Area Median Income (AMI). The applicant is proposing a mixture of rent levels ranging from 30% AMI to 70% AMI, with most of the units affordable to households at 60% of AMI. According to the American Communities Survey, there are 7,000 households in Blaine earning less than 60% AMI. Half of those households are cost burdened, meaning they pay more than 30% of their income towards housing. The bulk of the units would be affordable at 60% AMI, which is an annual income of \$75,000 for a household of four or \$50,000 for a household of one. Typical jobs include clerical staff such as police records technicians, community service officers, school bus drivers. Four of the units would be affordable at 30% AMI, which has an annual income of \$37,000 for a family of four, or \$26,000 for a single person, which correlates to nursing assistants, retail, childcare and foodservice.

Since rents will be lower than market rate, the applicant is not able to finance the project with traditional debt and equity. They are seeking Low Income Housing Tax Credits, a federal program that provides tax credits to owners of qualifying housing, and HOME funds through Anoka County. That funding still leaves a gap of approximately \$1.1 million.

Source	Amount
First Mortgage	\$13,720,000
Equity (from sale of federal tax credits)	\$13,720,000
HOME (through Anoka County)	\$3,100,000
Deferred Developer Fee	\$2,766,422
Gap	\$1,100,000

Pooled Housing TIF

The EDA has approximately \$1.1 million in pooled housing TIF that must be used in accordance with

state statute. The funds are excess tax increment from TIF districts established to finance previous affordable housing projects. The allowable uses include:

- Rental housing projects with at least 20% of units occupied by individuals whose incomes are 50% or less of area median income or 40% of units are occupied by individuals at 60% or less of AMI.
- Owner occupied housing with income limits of 115% of AMI.
- Up to 20% of the total square footage may be used for commercial development in a mixed-use building.

The applicant is requesting the funds be provided in a deferred loan that would be repaid with a balloon payment after 30 years. In 2021, the City Council approved a funding structure for another project that ultimately failed to receive necessary state funds, with the pooled TIF dollars provided as a deferred loan with a cash flow component, requiring that a portion of the cash flow remaining after loan payments be paid to the EDA. The Council may want to discuss whether the applicant's proposed financing structure is acceptable, or whether the EDA would only consider an alternative financing structure that would include some payments over the life of the loan.

Starting in July, the City will begin receiving proceeds from a new sales tax enacted by the legislature. The tax is expected to receive over \$500,000 in funds annually over the course of the tax's life. The sales tax dollars have fewer restrictions than the pooled housing TIF. The use of the new funds will be discussed in 2024, but is included so the Council can consider the scope of City/EDA resources available to support low and moderate income housing.

Conduit Bonding

The applicant is applying for Low Income Housing Tax Credits through Minnesota Management and Budget, which require the use of tax-exempt bonds. If awarded the tax credits, the applicant would need to obtain conduit bonds through the city. Under Minnesota Statutes, Chapter 462C (the "Municipal Housing Act") the City is authorized to issue housing revenue bonds to finance multifamily residential housing projects for low and moderate income persons and elderly persons. A conduit bond, often referred to as a private activity bond or tax-exempt financing, is a debt financing mechanism whereby private entities can raise capital at lower costs. The private entity is responsible for repaying the loan in an amount sufficient to pay principal and interest on the bonds. After the bonds are issued, the city has almost no role in payment or administration of the bonds.

The bonds are revenue bonds (the city does not pay debt service or any other cost related to the transaction). As such, the bonds have no effect on the issuing city's credit rating and are not counted against any statutory limitations on borrowing. When the bonds are sold, investors look only to the credit of the private borrower and any related private securities, such as mortgages and guarantees. While the city council must approve issuance of the bonds and all the bond documents, the transaction is largely handled by the private borrower and the underwriter that usually serves as the initial purchaser of the bonds. The city council does retain the responsibility to bond purchasers to disclose any material facts they may know of that could impact the bonds, such as remaining approvals for zoning approval or provision of utilities. The bond counsel for conduit bonds may be the city's regular bond counsel or may be retained by the private entity. Much of today's tax law regarding these bonds originated with the Tax Reform Act of 1986, which sharply narrowed the scope of permissible private

activity bonds.

There are generally no legal risks or financial obligations to the City of Blaine associated with this type of financing. The issuance of conduit debt is at the sole discretion of the City Council.

Financial Benefits to the City

The applicant will be platting the property and therefore will be required to pay park dedication at the rate in effect at the time of final plat. The current rate would result in a park dedication payment of \$499,188. Additionally, the applicant will be required to dedicate additional right of way on the east side of the property. The current right of way is insufficient for the frontage road in its current size and configuration and additional right of way would certainly be needed for any future improvements. If right of way is not willingly dedicated as part of a plat, the City will likely need to pay to obtain that right of way in the future.

Staff Recommendation

Discuss the proposal and provide feedback on the proposed comprehensive plan amendment.

Questions for Council

1. Does the City Council support a comprehensive plan amendment from Manufactured Home Residential to High Density Residential 2 to allow for a 102 unit apartment building?
 - a. If not, does the City Council support an amendment to High Density Residential to allow for a building with up to approximately 60 units?
2. If the City Council supports the land use amendment, does the City Council support allocating \$1.1 million in pooled housing TIF funds to support the development of the project as housing for households at 30-70% of Area Median Income?

Attachment List

1. Applicant Narrative
2. Preliminary Site Plan
3. Financials
4. Applicant Slides

11/16/2023

City of Blaine
10801 Town Square Drive NE
Blaine, MN 55449



RE: Workforce Housing – 9550 Central Avenue Service Road, Blaine

Mayor Sanders and Council:

Thank you in advance for your review of our proposed 102-unit workforce housing project at 9550 Central Avenue Service Road. We are excited about the potential opportunity to revitalize an underutilized parcel along Highway 65 and are looking forward to your feedback on the proposal.

Project Team:

Since 2000 MWF Properties has developed or consulted on the development of over 3,300 units of multifamily housing, with approximately 3,150 of those units being Section 42 housing. With a portfolio largely focused on the Twin Cities metro area, we have a deep understanding of the market; and are committed to long-term ownership in the communities where we develop.

Property management services will be provided by Velair Property Management, our related-entity management company with a corporate staff that has 40+ years of experience in the industry. The proposed architect for the project is Kaas Wilson Architects, a local design group that specializes in multifamily housing.

Project Site:

As noted above, the project would be located at the existing 'Matt's Homes' sales lot at 9550 Central Avenue Service Road. The site is 2.88 acres in size, equating to a proposed density of 35.4 units/acre. For the project to proceed there would be Comp Plan Amendment, Rezoning, PUD, Preliminary Plat, and Final Plat applications submitted for the City's review. Prior to those applications being considered, per the City's Neighborhood Meeting policy, MWF Properties would expect to hold a neighborhood meeting to gather feedback on the proposed use from those in the area.

Access to the project site would be provided off the Central Ave NE Service Road – from the Clover Leaf Pwky/Hwy 65 intersection to the south and the 97th Ave/Hwy 65 intersection to the north. As part of the development process, we will be deeding +/- 34 feet to expand the Right of Way along the Central Avenue Service Road (exact dimension to be confirmed by the City Engineer as part of the application process) to allow for future improvements of that road.

We believe the highest and best use for this site to be high density residential given the proximity to community services, compatibility with the Highway 65 corridor, the surrounding multifamily housing uses, and the market demand for general occupancy workforce housing units. While the site offers excellent visibility from Highway 65, we believe that the access, walkability, and surrounding uses limit the viability of commercial in this location. The proposed project would provide a buffer between the highway and the less dense residential housing to the west; while increasing the number of households in the area to support further local employment, retail, and commercial development investment along this corridor.

Proposed Project:

- 102 units of general occupancy workforce housing
- Studio, one-, two-, and three-bedroom units
- All units affordable at or below the 70% AMI rent level (Majority of units affordable at 60% AMI)
- One level of covered parking below four stories of residential
- Community amenities including a community room, activity room, fitness center, secure package room, tot lot, indoor bike storage and fix-it station

Financing Request:

As part of our formal applications, we are planning to request \$1.1M in pooled housing tax increment financing to help support the proposed affordability for the project. Included with this narrative is a proforma for the project outlining how we arrived at the requested amount. In addition to the requested City funds, we are anticipating a \$3.1M request to Anoka County/other potential deferred funding sources, and a developer loan of nearly \$2.75M.

As part of the discussion on a previous request for this assistance the Council noted a concern with using these funds now, and not being able to access this resource down the road for future redevelopment in other areas of the community. While we view the proposed project as a quality opportunity to revitalize this site, we certainly understand the vision the Council has for other areas of town as well. To help meet those goals we would propose structuring the pooled TIF funds as a 30-year repayable loan, with payments deferred until the end of the term, allowing the City to recycle the funds to meet future redevelopment priorities.

Public Benefit:

We understand that as part of the PUD process the project will need to provide evidence of the public benefit offered by the proposal. A few of the benefits we believe this proposal provides include:

1. Meets a Local Housing Need

The Housing Chapter of the City's 2040 Comprehensive Plan establishes a goal to create housing units affordable to households earning up to 80% of AMI or less. The Plan also emphasizes redevelopment in select areas along Highway 65 to 'foster job growth and increase property values as well as create a more positive community image'. We are confident that the proposed project can help meet both goals by offering all units at or below 70% AMI, and making use of the visibility that this site offers to provide a high-quality well-built project along a prominent gateway on the west side of the community.

2. Expansion of Central Avenue Service Road Right of Way

As shown on our preliminary site plan, we are anticipating an expansion of Central Avenue Service Road as part of this proposed development that would allow for that road to be upgraded to better serve the residential and commercial uses in the area. The project would be deeding an approximately 34-foot strip of land on the East side of the site to the City to allow for this Right of Way expansion.

3. Issuance Fee

Financing for this project would be provided through a combination of Section 42 tax credits and tax-exempt bonding from Minnesota Management and Budget (MMB). As part of our submission to MMB for bond financing we would request that the City of Blaine be the Issuer of the project's bonding. As the Issuer, the City would act as an intermediary between MMB and the project, without impacting the City's bond capacity. In exchange for acting in this capacity, the City will be paid an 'Issuance Fee' at project closing – which generally falls between \$170,000 and \$180,000 for a project of this size.

We thank you for your consideration of our preliminary concept plan and look forward to discussing it in more detail at the workshop on December 4th.

Sincerely,



MWF Properties, LLC

Matt Yetzer

Development Manager

mattyetzer@mwfproperties.com

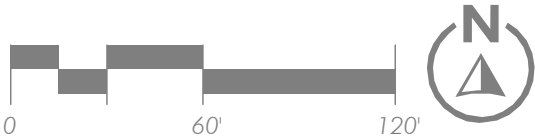
612.314.7652



- SITE PLAN KEY**
- 1 BUILDING ENTRANCE
 - 2 GARAGE ENTRANCE
 - 3 TOT LOT
 - 4 PARKING

PARKING	
Type	Count
GARAGE	92
SURFACE	113
	205

UNIT MIX - GROSS AREA	
Name	%
1 BD	30
2 BD	45
3 BD	25



1 SD Site Plan
1" = 60'-0"

Blaine Workforce Housing
Sources and Uses Proforma
10/24/2023

Sources and Uses			
Land	\$1,685,000	First Mortgage	\$13,720,000
Construction	\$23,625,000	Equity	\$13,578,598
Professional Fees	\$5,319,330	Anoka County HOME/Other Deferred Sources	\$3,100,000
Financing Costs	\$3,062,000	City of Blaine Pooled TIF	\$1,100,000
Reserves	\$573,690	Deferred Developer Fee	\$2,766,422
	\$34,265,020		\$34,265,020

SOURCES

Total Development Cost from Development Costs tab:

\$34,265,020

CONSTRUCTION SOURCES

Name of Source	Term (Months)	Rate	Amount	Per Unit	Committed	Notes
Tax Exempt - Series A	30	6.880%	17,500,000	175,000	☒	
Taxable	30	7.500%	5,350,000	53,500	☒	
				0	☐	
				0	☐	
				0	☐	
Total Construction Financing			22,850,000	228,500		

PERMANENT CAPITAL SOURCES OF FUNDING

Name of Source	Term (Years)	Rate	Amount	Per Unit	Committed	Include in HTC Gap	End Loan	Notes (Enter info about status and estimated timing of funding)
First Mortgage	16	6.880%	13,720,000	137,200	☒	☒	☒	
General Partner Cash			100	1	☒	☒		
Syndication Proceeds			13,578,498	135,785	☒			
State Historic Proceeds				0	☐	☒		
Federal Historic Proceeds				0	☐	☒		
Deferred Loan Request			3,100,000	31,000	☐	☒		Anoka County HOME/Other Def
Sales Tax Rebate				0	☐	☒	☐	
Energy Rebates				0	☐	☒	☐	
				0	☐	☒	☐	
				0	☐	☒	☐	
City of Blaine Pooled TIF	30	0.000%	1,100,000	11,000	☐	☒	☐	
				0	☐	☒	☐	
				0	☐	☒	☐	
				0	☐	☒	☐	
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				0	☐	☒	☐	
				0	☐	☒	☐	
Deferred Developer Fee	30	2.000%	2,766,422	27,664	☒		☒	
Total Permanent Financing			34,265,020	342,650				
FUNDING GAP REMAINING			0	0				

Workbook

Workforce Rental Housing Matt's Homes Site



Developer Experience

2

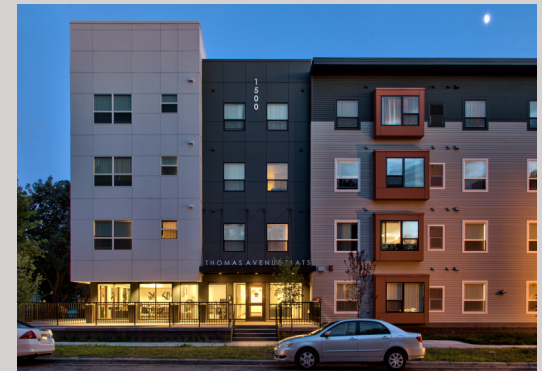
- Since our founding in 2000, MWF has developed over 3,300 housing units across the Midwest
- Have in house management company, Velair Property Management - Voted "Best" in Twin Cities property management in 2022 and 2023 (top 28 of 268).
- Focus on high quality construction that is built-to-last



Willow Ridge East
Vadnais Heights, MN



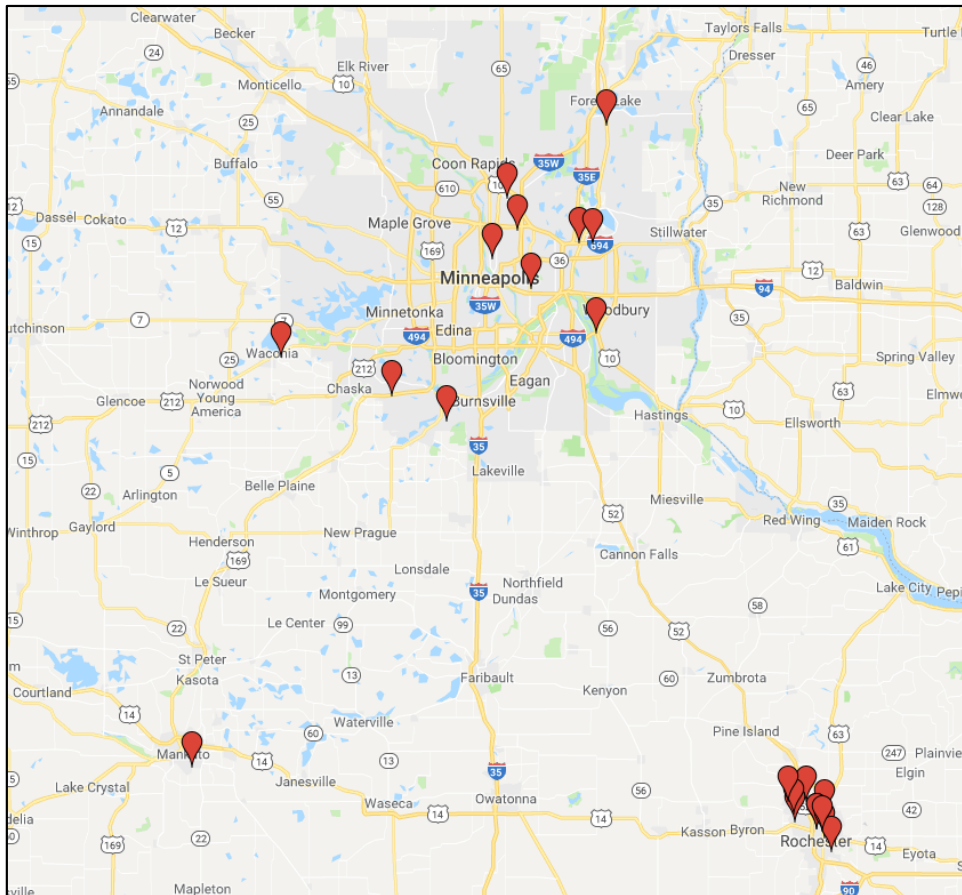
Red Rock Square
Newport, MN



Thomas Avenue Flats
St. Paul, MN

Developer Portfolio

3



Minnesota Portfolio

Repeat Business:

Rochester – 12 Projects

Bloomington – 3 projects

Burnsville – 3 projects

Vadnais Heights – 2 projects

Waconia – 2 projects

Saint Paul – 2 projects

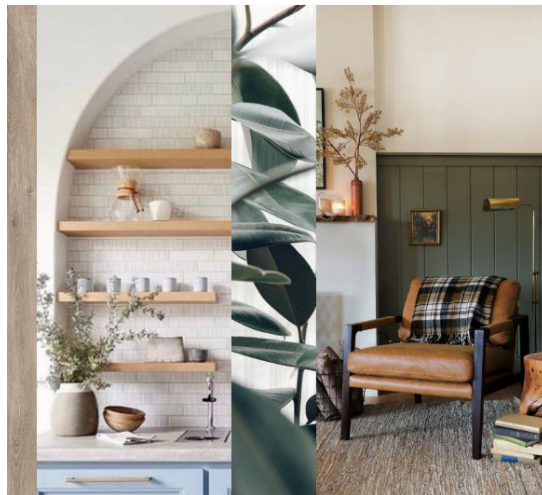
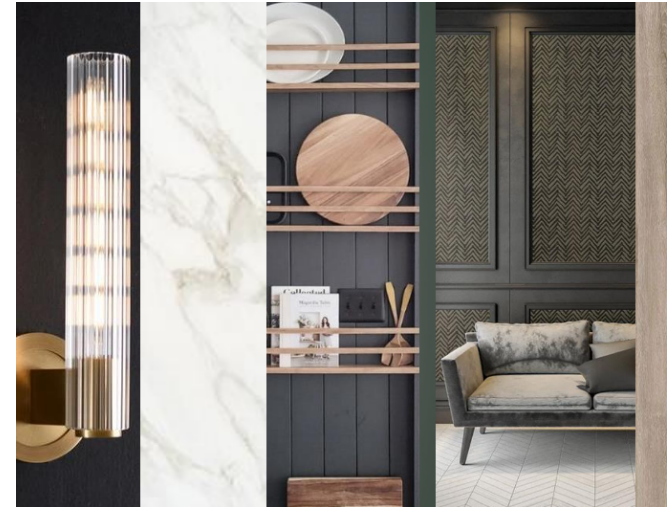
Shakopee – 2 projects

Recent Projects

4



The Villas of Mounds View
120 units
Mounds View, MN
Opened September 2023



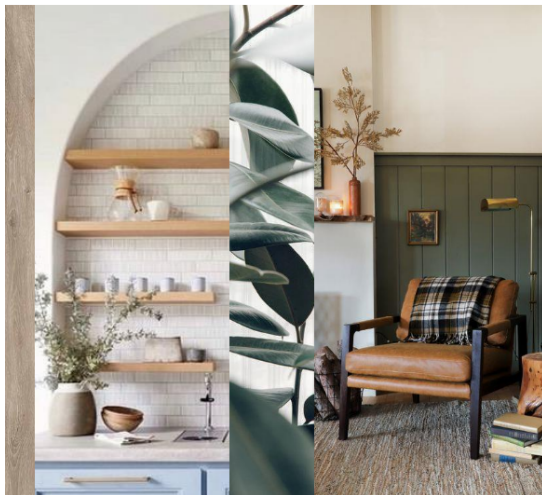
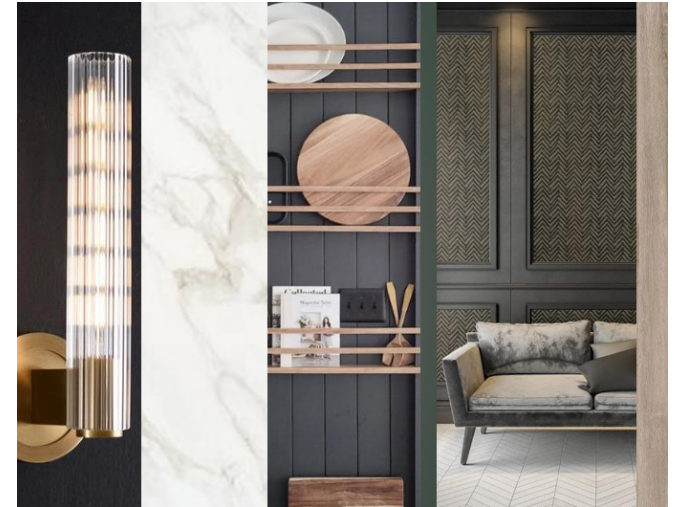
The Villas at Pleasant Ave
150 units
Burnsville, MN
Opened October 2023

Recent Projects

5



Oakdale Commons
168 units
Oakdale, MN
Opening December 2024

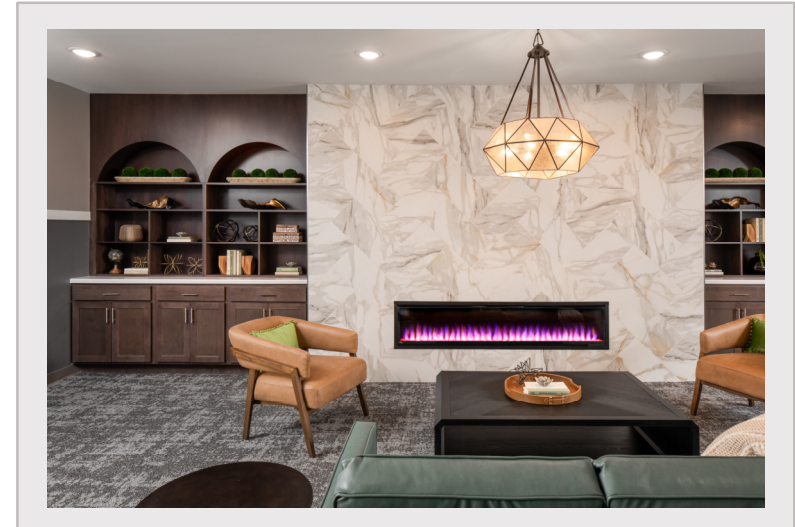


Oxboro Heights
125 units
Bloomington, MN
Opening April 2024

Project Features

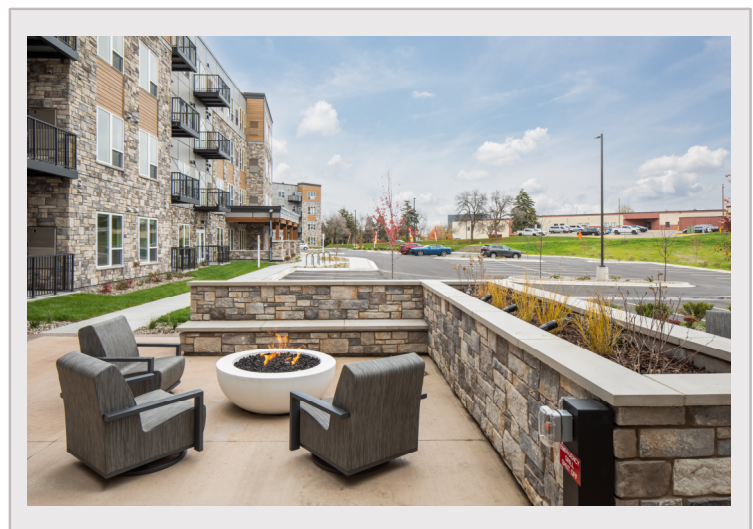
6

- On-site Management
- Community Room
- Fitness Room
- Balconies
- Secure Building Access
- 24-hour Surveillance
- Secure Package Room
- Underground Parking
- In-unit Laundry
- Green Features: LED lighting, Low Flow Fixtures, Recycling Chutes and Receptacles throughout Building



Project Features

7



Example Building Elevations

8



Oakdale Commons
Oakdale, MN
Kaas Wilson Architects

Example Building Elevations

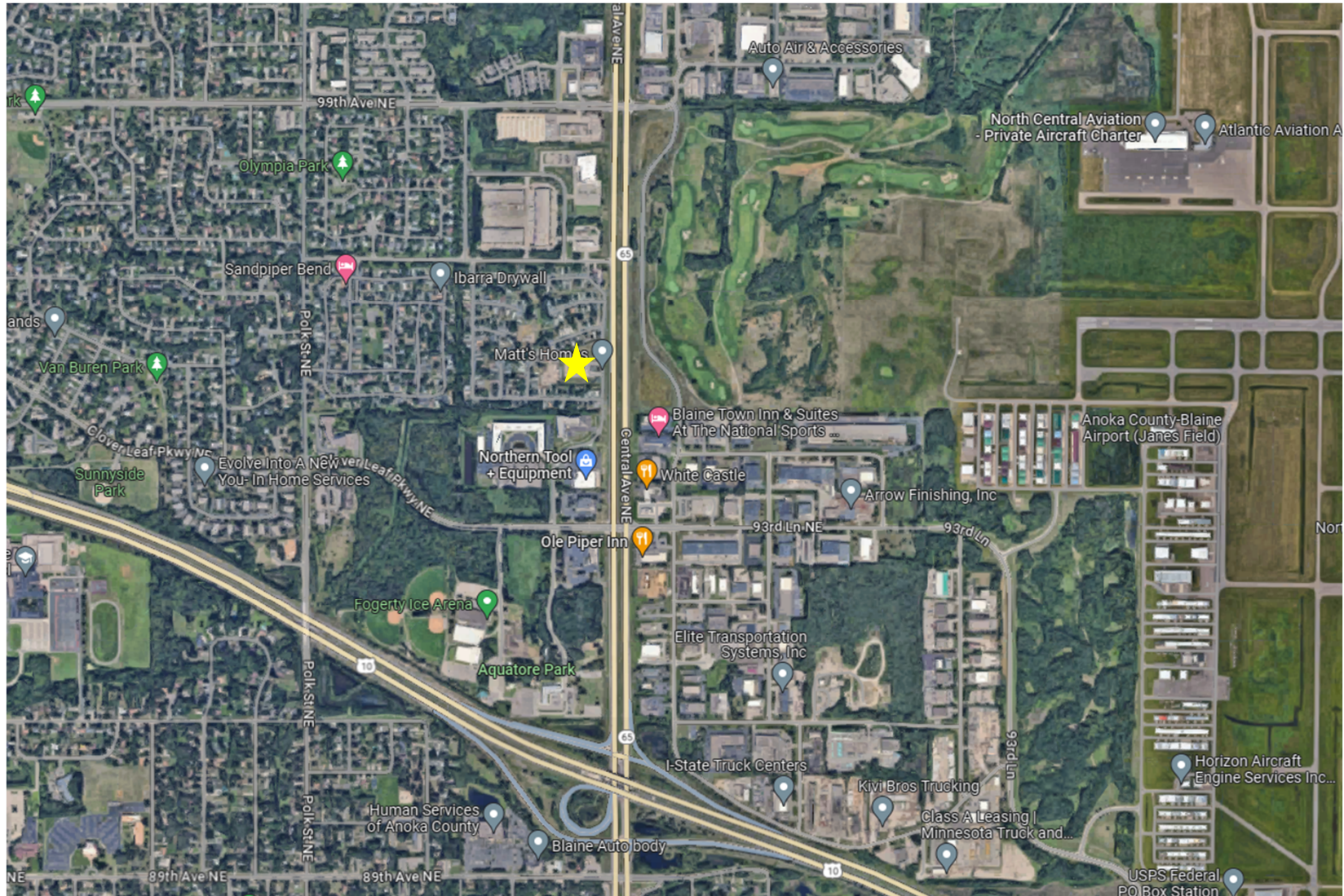
9



Villas at Pleasant Avenue
Burnsville, MN
Kaas Wilson Architects

Matt's Home Site

10



Matt's Homes Site

11



Why this site?

12

- Proximity to grocery, banking options, retail opportunities, employers, schools and walking paths to public parks
- Other rental housing options in the immediate area serve a different population
- Access to the site not conducive to a commercial or retail use
- Quality addition along a prominent gateway to the community
- Provide a buffer from Hwy 65 to the lower density single family to the west



Contact Us

7

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For more information visit www.mwfproperties.com



City of Blaine Staff Report

File Number: 2023-540

Agenda Date	Status
December 11, 2023	
In Control	File Type
City Council	Workshop Item

New Business - Daniel Schluender, Director of Engineering

Agenda Item # 2.6

99th Avenue and 101st Avenue Traffic Study

Background

Council directed staff to conduct a neighborhood traffic study for the neighborhood bordered by the streets of 99th Avenue/101st Avenue to 97th Avenue and University Avenue Service Drive and 6th Street. The engineering firm, Bolton and Menk, was hired by the city to prepare the traffic study on February 7, 2023. The process started with a neighborhood meeting, held on March 7, 2023, to determine what concerns the neighborhood had and what they were experiencing. There were 29 residents, representing 22 properties, in attendance and some of the concerns that were expressed included lack of sidewalks, cut-through traffic, traffic speeds, and parking (see attached list of issues). Data was then collected at the locations needed to determine the traffic patterns and to determine what was occurring at some of the locations identified in the neighborhood meeting. The study was prepared and posted on the project page on August 28, 2023. The neighborhood was sent a link to the page along with an invitation to another neighborhood meeting, held on September 14, 2023, to review the report and discuss the data and the findings. There were 12 residents, representing 11 properties, present at this meeting and there was discussion on what the findings of the report recommended and when some of these improvements could be constructed.

Staff Recommendation

Incorporate the improvements identified in the report based on neighborhood support into the streets when this neighborhood is scheduled for reconstruction. Determine if the proposed improvements on 99th Avenue/101st Avenue should be incorporated into the Transportation Program 5-year CIP.

Questions for Council

Does the Council want to add proposed improvements to 99th Avenue/101st Avenue intersection to the Transportation 5-CIP?

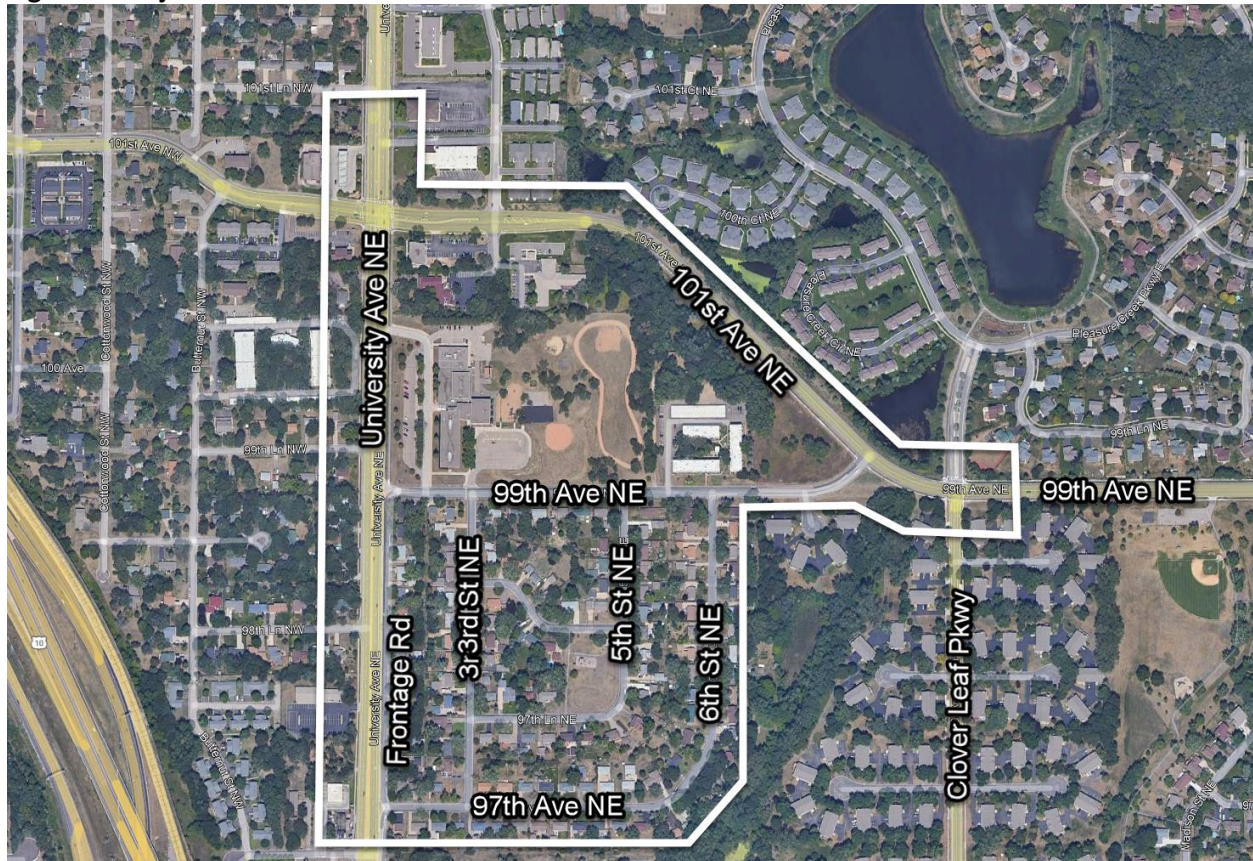
Attachment List

1. 99th and 101st Final Traffic Study
2. Blaine- Neighborhood Meeting Notes_03072023

Introduction

The City of Blaine directed that a traffic study be conducted to determine the traffic impacts of a proposed apartment building and to evaluate traffic concerns in the surrounding neighborhood. The study includes analysis of vehicular and pedestrian traffic in the neighborhood to the south of 101st Avenue NE and to the east of University Avenue NE. This includes analysis of traffic patterns at multiple key intersections in and around the neighborhood, driver speed behavior within the neighborhood, pedestrian facilities and level of comfort, and traffic operations both as they exist today and as they would perform with a future apartment building development on the northwest corner of the intersection of 99th Avenue NE and 101st Avenue NE. The limits of the study area are shown in **Figure 1**, below.

Figure 1. Project Area



Existing Conditions

University Avenue NE runs north-south on the western limit of the study area. In this segment, University Avenue NE is an A Minor Reliever, divided four-lane roadway with a concrete median restricting access at 99th Avenue NE to right-in right-out only and 97th Avenue NE to right-in only. At the intersection with 101st Avenue NE, there is a signalized traffic controlled intersection with dedicated left and right turn lanes on each approach (with the exception of a shared thru/right lane on the westbound approach). The daily traffic

volume on University is 22,800 per a 2018 Average Daily Traffic (ADT) count available from MnDOT State Aid counts.

101st Ave NE is a Major Collector, four-lane undivided roadway that transitions to 99th Ave NE to the east of the intersection of 99th Ave NE and 101st Ave NE. The most recent ADT listed by MnDOT is 6,900, per a 2019 count west of Polk Street. At the intersection with 99th Ave NE, there are no dedicated turn lanes at any approach. The intersection is approximately 275 feet west of the intersection of Clover Leaf Parkway and 99th Ave NE.

The remainder of the roads in the study area are considered local, undivided two-lane residential roads that do not have an official MnDOT ADT count. However, **Table 2** and **Table 3** show vehicular volumes from traffic count data collection in April 2023.

Data Collection

24-hour turning movement count data was collected Tuesday, April 11th, 2023, capturing one day of normal weekday conditions. Additionally, pedestrian and bicyclist data were captured. The weather was warm and clear on this day and is considered representative of daily pedestrian and bicyclist traffic in the area. **Table 1** shows the AM and PM peak hours found at each intersection for vehicular traffic.

Table 1. AM and PM Peak Hours of Intersection

Intersection	AM Peak Hour	PM Peak Hour
University Ave NE at 101st Ave NE	7:00 AM - 8:00 AM	4:00 PM - 5:00 PM
99th Ave NE at 101st Ave NE	7:00 AM - 8:00 AM	3:15 PM - 4:15 PM
Clover Leaf Pkwy at 99th Ave NE	7:00 AM - 8:00 AM	4:30 PM - 5:30 PM
99th Ave NE at University Ave/Frontage Rd	8:30 AM - 9:30 AM	3:45 PM - 4:45 PM
97th Ave NE at University Ave/Frontage Rd	8:30 AM - 9:30 AM	3:15 PM - 4:15 PM
99th Ave NE at 3rd St NE	8:30 AM - 9:30 AM	3:15 PM - 4:15 PM
99th Ave NE at 6th St NE	8:30 AM - 9:30 AM	3:30 PM - 4:30 PM

Existing turning movement counts by intersection can be found in the **Appendix**.

Speed Analysis

Speed data was collected at multiple locations within the project area using radars. The radar units were mounted to collect data in both directions and lanes without any sort of display of speeds to the driver. The posted speed limit is 30 miles per hour (mph) in all locations. Some locations were collected for a single weekday while others were collected across a seven-day period to best understand the weekly variation in traffic volume and speed. The locations of radar-collected data were:

Seven-day data collection:

1. Frontage road (parallel to University Ave, north of 97th Ave NE and south of 99th Ave NE)
2. 97th Ave NE (east of 3rd St NE and west of 6th St NE)
3. 99th Ave NE (east of University Ave NE and west of 101st Ave NE)

24-hour weekday data collection:

4. 3rd St NE (north of 97th Ave NE and south of 99th Ave NE)
5. 6th St NE (south of 99th Ave NE and northeast of 97th Ave NE)

Data was compiled from each location to determine the volume of traffic, average speed, and 85th percentile speed, as the 85th percentile speed is generally used to set speed limits.

Table 2 below summarizes the five locations and the respective weekday average speed, 85th percentile speed, 10 MPH pace, and daily volume. The 85th percentile speed is the speed that 85% of drivers drive at or below on a particular stretch of roadway. The 10 MPH pace metric is the range of speed at which most vehicles are recorded traveling. These metrics are considered benchmarks that highlight the range and frequency of driver speeds at the respective section of roadway. Additionally, the weekday average traffic volume and maximum speed recorded is listed per direction of roadway.

Table 2. Average Weekday Speed Summary

Roadway	Direction	Average Speed (mph)	85th Percentile Speed (mph)	10 mph Pace	Daily Volume (weekday average)	Speed Limit
University Ave Frontage Road	NB	32	42	24-34	310	30
	SB	22	27	15-25	14	30
99th Avenue	EB	30	35	26-36	242	30
	WB	30	35	26-36	569	30
97th Avenue	EB	25	31	19-29	176	30
	WB	21	26	14-24	32	30
6th Street NE	NB	25	30	19-29	219	30
	SB	23	30	17-27	88	30
3rd Street NE	NB	27	32	23-33	228	30
	SB	24	29	21-31	31	30

Per **Table 2**, it is notable that most sections of roadway have a dominant direction for traffic. These directions coincide with traffic exiting University Ave NE and traveling toward 99th Ave NE on the frontage road, 3rd St NE, or 6th St NE. On 99th Ave NE, the dominant direction is westbound, which coincides with vehicles traveling to the school or exiting onto University Ave NE. The location with the highest average speed was the northbound direction of the University Ave NE Frontage Road, at 32 MPH which provides the most direct route from University Avenue to the school and also is a parallel route to University Avenue. The highest 85th percentile speed was in the same location, at 42 MPH. The corresponding 10 MPH pace in this location is 24-34 MPH, which indicates that the majority of vehicles traveling on this section of roadway are traveling between 24 and 34 MPH. All other locations and directions had 85th percentile speeds within 5 MPH of the 30 MPH speed limit.

For the locations where seven days of data was collected, an analysis was conducted to determine the trend of vehicular traffic throughout the week. **Table 3** below summarizes these three locations (split by direction) across the days of the week. **Figure 2** graphically represents the same data.

Table 3. Vehicular Volume per Day of the Week

Roadway	Direction	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
University Ave Frontage Road	NB	67	333	294	309	323	291	108
	SB	3	8	16	10	20	16	6
99th Avenue	EB	78	230	234	261	253	232	106
	WB	158	556	546	619	570	557	181
97th Avenue	EB	99	166	184	168	178	188	92
	WB	35	33	33	32	26	36	18

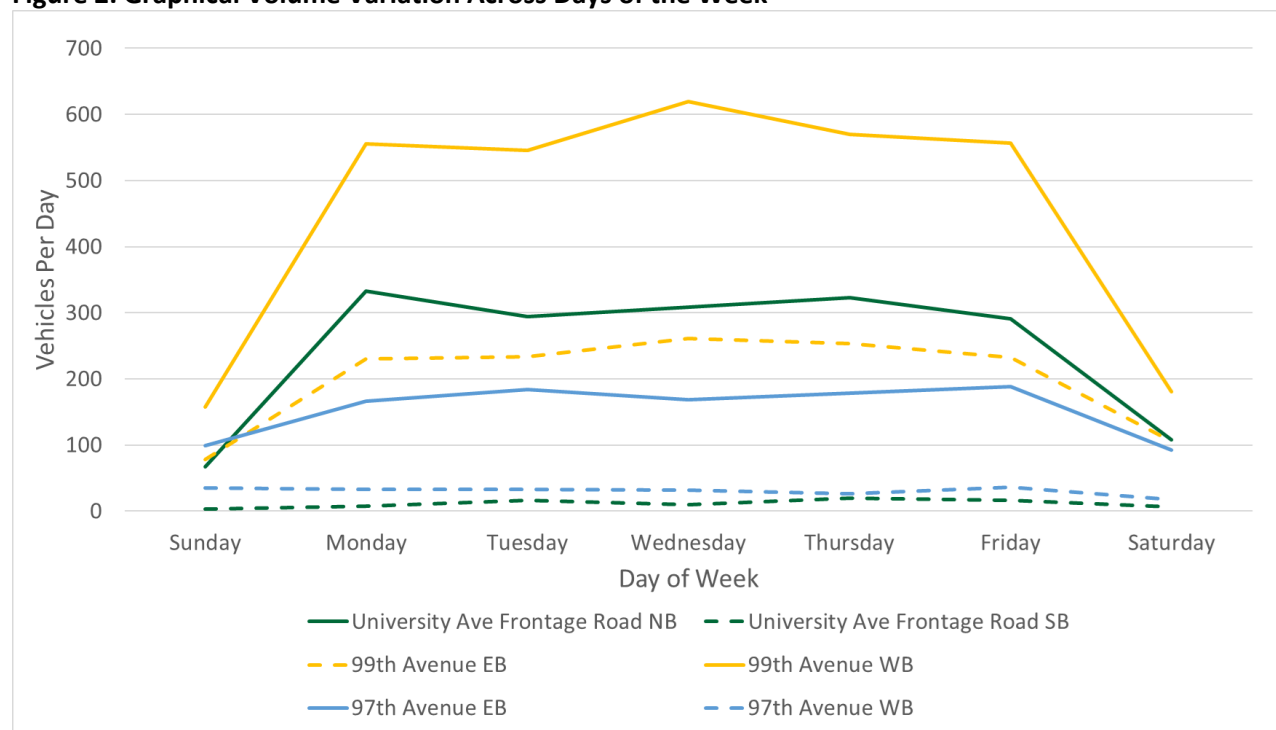
Figure 2. Graphical Volume Variation Across Days of the Week

Figure 2 shows the dominant directions in a bolded line, where the non-dominant counterpart is shown in the same color as a dashed line. The roadway with the most variation is 99th Ave NE, specifically in the westbound direction. The variation lies mostly in weekday versus weekend traffic, which can be attributed to 99th Ave NE serving the main entrances to the elementary school. Southbound University Ave Frontage Rd and westbound 97th Ave show the lowest traffic volumes and least variation in volume throughout the week.

Pedestrian Facilities

A review was done to determine the availability and reliability of the existing pedestrian facilities within the study area.

Sidewalks currently exist in the following locations of the project area:

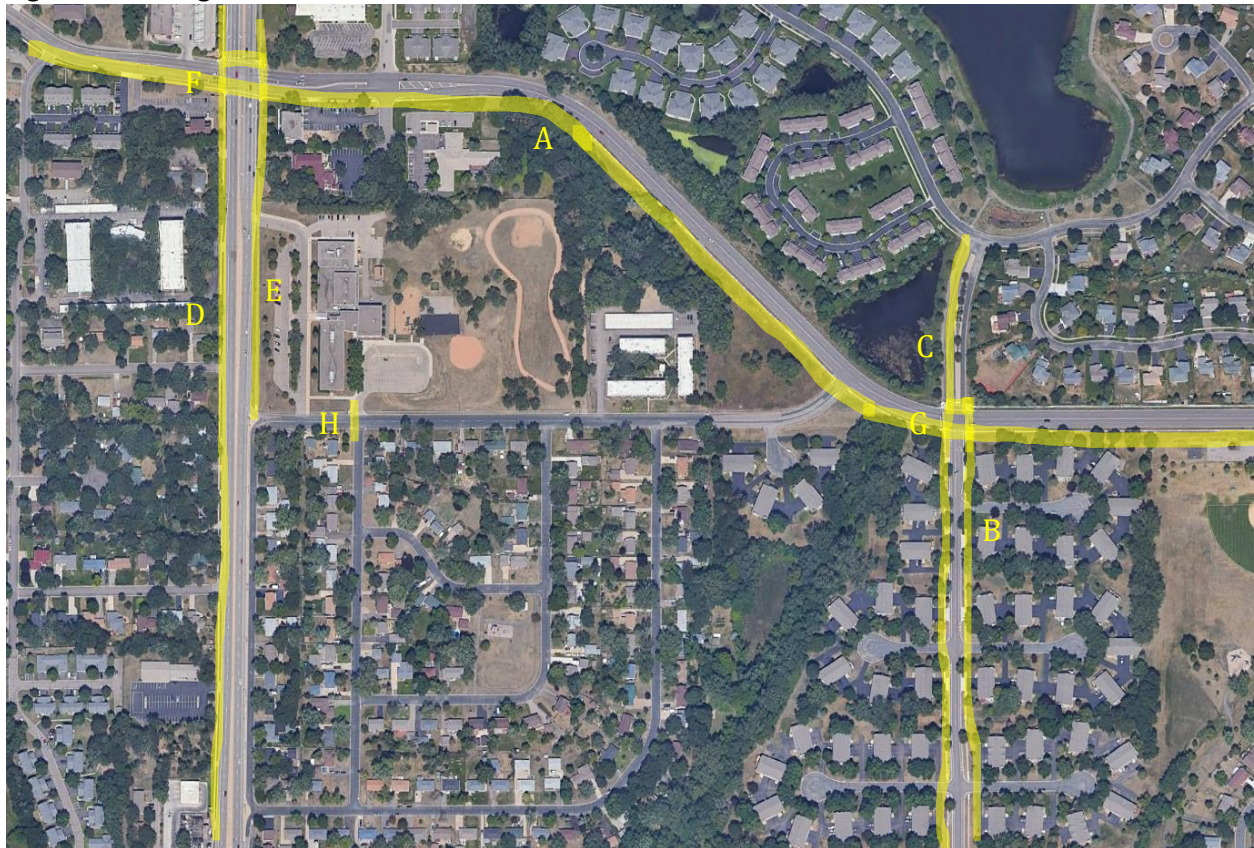
- A. South side of 101st Ave NE west of 99th Ave NE, continued on south side of 99th Ave NE east of 101st Ave NE.
- B. East side of Clover Leaf Pkwy south of 99th Ave NE
- C. West side of Clover Leaf Pkwy
- D. West side of University Ave NE (throughout project area)
- E. East side of University Ave NE from 99th Ave NE to 101st Ave NE and beyond

Marked crosswalks exist at the following locations:

- F. Signalized Intersection of University Ave NE (all legs)
G. Signalized Intersection of 99th Ave NE and Clover Leave Pkwy (all legs)
H. 3rd St NE crossing 99th Ave NE (west side of intersection)

Figure 3 highlights the locations of the sidewalk facilities.

Figure 3. Existing Pedestrian Facilities



With the elementary school, neighborhood, and local park all located in the study area, pedestrians traveling to and from these locations do not have off-street facilities outside of the trails along University Ave NE and 101st Ave NE to access the destinations.

The two existing pedestrian crossings nearest the neighborhood were reviewed for pedestrian accommodations including the striped crosswalk in front of the school that crosses 99th Ave NE and the unstriped crossing at 101st Ave NE and 99th Ave NE.

99th Ave NE and 101st Ave NE

Along 101st Ave NE, there is an existing sidewalk on the south side of the roadway as well as pedestrian ramps to street level as it approaches 99th Ave NE. However, at this intersection, there is no striped crosswalk. Per table 3-4 in NCHRP 992 "Guide to Pedestrian Analysis", an unmarked crossing may expect an average motorist yield rate of 24%. Based on the existing volumes and a footage review of the peak hours, the delay experienced by pedestrians may be noticeable, but not inconvenient.

99th Ave NE and 3rd St NE / Elementary School Entrance

Along 99th Ave NE, there are no off-street pedestrian facilities except those on school property. The crosswalk that crosses 99th Ave NE at 3rd St NE is marked and signed- providing an estimated 33% motorist yield rate, per the report mentioned previously. During most school peaks, there are school crossing guards to assist pedestrians in crossing 99th Ave NE, which is anticipated to increase the motorist yield rate to 86%, further reducing delay for pedestrians. Based on the existing volumes and a video footage review of the peak hours, pedestrians may experience occasional delay but is not considered to be a concern.

The addition of striping, signage, and other pedestrian crosswalk structures (such as crossing flags, in-road signs, RRFB, etc.) increase visibility and may further improve the pedestrian experience at these intersections. However, based on the review of existing conditions, implementing changes to reduce delay is not deemed to be necessary.

Safety Analysis

Crash data was collected for the study area using the Minnesota Crash mapping Analysis Tool, version 2 (MnCMAT2). There were 56 crashes reported in the last five years (2018-2022) within the study area. 34 of the crashes occurred at the intersection of University Ave and 101st Ave. None of the crashes reported in the last ten years involved a pedestrian or bicyclist. However, a pedestrian fatality occurred in the neighborhood prior to the ten-year time period analyzed, per feedback received at the March 2023 neighborhood meeting.

A summary of the crash types and severities from 2018-2022 are listed in **Table 4 and Table 5** below. Intersections in the study area that did not have any reported crashes in this time frame were omitted.

Table 4. Five-Year Intersection Crash Summary by Severity

Intersection	Fatal	Serious Injury	Minor Injury	Possible Injury	Property Damage Only	Total
University Ave at 101st Ave	-	1	4	8	21	34
99th Ave at 101st Ave	-	-	-	1	5	6
99th Ave at University Ave/Frontage Rd	-	-	-	1	1	2
97th Ave at University Ave/Frontage Rd	-	-	1	-	-	1
99th at 6th St/Royal Oaks Entrance	-	-	-	-	1	1
99th Ave at 5th St	-	-	-	-	1	1
Clover Leaf Pkwy at 99th Ave	-	-	-	1	10	11
Total	0	1	5	11	39	56

Table 5. Five-Year Intersection Crash Summary by Crash Type

Intersection	Angle	Left Turn	Rear-End	Single Vehicle Run Off Road	Sideswipe (Same Direction)	Other	Total
University Ave at 101st Ave	9	1	19	1	2	2	34
99th Ave at 101st Ave	1	-	2	2	1	-	6
99th Ave at University Ave/Frontage Rd	-	-	2	-	-	-	2
97th Ave at University Ave/Frontage Rd	-	-	-	1	-	-	1
99th at 6th St/Royal Oaks Entrance	1	-	-	-	-	-	1
99th Ave at 5th St	-	-	-	-	1	-	1
Clover Leaf Pkwy at 99th Ave	4	4	1	2	-	-	11
Total	15	5	24	6	4	2	56

There are some concerns with the crash types that are occurring at multiple intersections.

- University Ave at 101st Ave
 - High number of angle crashes involved a driver running a red light. Many of the crashes cited inattention due to being on an electronic device. Many of the crashes also cited high traffic speeds and trying to get through an intersection as the light changed. Since this is a county owned signal, the information will be reported to the county to see if any adjustments to the intersection could be implemented to potentially reduce some of the crashes.

- 99th Ave at 101st Ave
 - Multiple crash types that can likely be attributed to a combination of the four-lane section, the horizontal curvature of the roadway, and sightlines.
- Clover Leaf Pkwy at 99th Ave
 - Angle crashes involved a driver running a red light. Three of the crashes noted winter weather conditions. The crashes may be due to a combination of the roadway curvature, traffic speeds, and the weather conditions.
 - Left turn crashes occurred due to failure to yield. These may be partially due to the shared/through lane, the roadway curvature, and traffic speeds.

A comparison of the crash rate and the critical rate was completed to determine if there is a safety concern at an intersection. The crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside of the expected, normal range. The critical index reports the magnitude of this difference and a critical index of less than one indicates that the intersection is operating within the normal range. The latest available statewide average crash rates are from 2020 and were used for comparison purposes. **Table 6** below summarizes these rates and indices for both the total crashes as well as the fatal and serious crashes that occurred between 2018 and 2022.

Table 6. Five-Year Intersection Crash Summary by Crash Type

Intersection	Total				Fatal and Serious			
	Observed	Statewide Average	Critical Rate	Critical Index	Observed	Statewide Average	Critical Rate	Critical Index
University Ave at 101st Ave	0.62	0.59	0.87	0.71	1.81	0.82	3.29	0.55
99th Ave at 101st Ave	0.37	0.13	0.39	0.94	0.00	0.31	5.12	0.00
99th Ave at University Ave/Frontage Rd	1.90	0.13	1.50	1.27	0.00	0.31	54.79	0.00
97th Ave at University Ave/Frontage Rd	1.01	0.13	1.56	0.65	0.00	0.31	58.09	0.00
99th at 6th St/Royal Oaks Entrance	0.43	0.13	0.95	0.45	0.00	0.31	26.46	0.00
99th Ave at 5th St	0.43	0.13	0.95	0.45	0.00	0.31	26.46	0.00
Clover Leaf Pkwy at 99th Ave	0.65	0.51	0.99	0.66	0.00	0.69	6.25	0.00

Per **Table 6**, each intersection is operating within an acceptable range for fatal and serious crashes over the five years observed. Each intersection, with the exception of 99th Ave NE at the University Ave Frontage Rd, is operating within the normal range for total crashes observed. The intersection of 99th Ave NE and the University Ave Frontage Rd is above the normal range when compared to similar intersections statewide. The total observed crash rate was found to be 1.90 which is nearly fifteen times higher than the average for similar intersections statewide (0.13). Only two crashes occurred at this intersection in the last five years, but due to the low traffic volume at this intersection, the critical index (1.27) shows that the intersection is operating above the normal range compared to similar intersections statewide.

The crash worksheets for intersections with reported crashes can be found in the **Appendix**.

Warrant Analysis

A warrant analysis was completed for the intersection of 99th Ave NE at 101st Ave NE as well as the intersection of Clover Leaf Pkwy and 99th Ave NE. Both the existing volumes as well as anticipated volumes with a potential development at the northwest corner of 99th Ave NE and 101st Ave NE were considered. More details of the potential development can be found in the "Build Analysis" section of this memorandum.

When analyzing the traffic signal warrants, half of the right turning volumes on the minor approach were included, due to the shared lane usage. When analyzing the all-way stop control warrants, all of the rights on the minor approaches were included.

Traffic Control Signal Warrant Analysis

The Minnesota Manual on Traffic Control Devices (MnMUTCD) states that the investigation of the need for a traffic control signal shall include an analysis of the applicable factors contained in the following traffic signal warrants:

- Warrant 1: Eight-Hour Vehicular Volume
- Warrant 2: Four-Hour Vehicular Volume
- Warrant 3: Peak Hour
- Warrant 4: Pedestrian Volume
- Warrant 5: School Crossing
- Warrant 6: Coordinated Signal System
- Warrant 7: Crash Experience
- Warrant 8: Roadway Network
- Warrant 9: Intersection Near a Grade Crossing

99th Ave NE at 101st Ave NE

The traffic control signal warrant analysis concluded a signalized intersection is not justified with the existing volumes. However, with the volumes added from the potential apartment development, warrant 1B is met, which may justify a traffic signal if determined to be needed for a safety or operational improvement.

99th Ave NE at Clover Leaf Pkwy

When considering both existing and the build scenario, based on recent traffic counts, no warrants are met for the intersection. Due to its location near a curve which can impact sight lines and the traffic speeds the signal is considered justified and was justified when constructed. A Signal Justification Letter was completed in 2021 which justified that the existing signalized intersection was to remain in place.

All-Way Stop Control Warrant Analysis

All-way stop control can be useful as a safety measure at intersections if safety concerns exist because of high traffic volumes in multiple directions or if there is an insufficient sight distance available to see conflicting traffic on an approach to an intersection. The MnMUTCD states that the need for an all-way stop control shall be considered if one of the following conditions is met:

- Criteria A: Where traffic control signals are justified, an all-way stop can be installed as an interim measure.

- Criteria B: Five or more crashes are reported in a 12-month period that are susceptible to correction by an all-way stop installation.
- Criteria C: Where:
 1. The vehicular volume entering the intersection from the major street approaches (total of both approaches) averages at least 300 vehicles per hour for any 8 hours of an average day; and
 2. Where the combined vehicular, pedestrian, and bicycle volume entering the intersection from the minor street approaches (total of both approaches) averages at least 200 units per hour for the same 8 hours, with an average delay to minor-street vehicular traffic of at least 30 seconds per vehicle during the highest hour. but,
 3. If the 85th-percentile approach speed of the major street traffic exceeds 40 mph, the minimum vehicular volume warrants are 70 percent of the values provided in Items 1 and 2.
- Criteria D: Where no single criterion is satisfied, but where Criteria B, C.1, and C.2 are all satisfied to 80 percent of the minimum values. Criterion C.3 is excluded from this condition.

99th Ave NE at 101st Ave NE

Considering the no build condition, no criteria are met to warrant an all-way stop control at this intersection. With the added volumes from the proposed development, Criteria A is met, as a signal is justified under these conditions. Therefore, an all-way stop control is warranted at this intersection if the proposed development would occur and if needed based on safety or operations.

99th Ave NE at Clover Leaf Pkwy

No criteria are met at this intersection under either the existing or build condition.

The detailed warrant analyses can be found in the **Appendix**.

Traffic Operations

An operations analysis was completed for the AM and PM peak hours using the existing (2023) turning movements. The operational analysis results are described as a Level of Service (LOS) ranging from A to F. These letters serve to describe a range of operating conditions for different types of facilities. Levels of Service are calculated based on the Highway Capacity Manual 6th Edition, which bases the level of service on control delay. Control delay is the delay experienced by vehicles slowing down as they are approaching the intersection, the wait time at the intersection, and the time for the vehicle to speed up through the intersection and enter into the traffic stream. The average intersection control delay is a volume weighted average of delay experienced by all motorists entering the intersection on all intersection approaches. Level of service D for an intersection is commonly taken as an acceptable design year LOS in the suburban area of the Twin Cities metro region. LOS E or F may be considered acceptable for lower volume or minor movements.

The level of service and its associated intersection delay for a signalized and unsignalized intersection is presented below. The delay threshold for unsignalized intersections is lower compared to signalized intersections, which accounts for the fact that people expect a higher level of service when at a stop-controlled intersection. Roundabouts are considered unsignalized intersections. **Table 7** details the control delay thresholds for signalized and unsignalized intersections.

Table 7: Level of Service Criteria

LOS	Signalized	Unsignalized
	Control Delay per Vehicle (sec.)	Control Delay per Vehicle (sec.)
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

It is noted that the peak hours were slightly different amongst the intersections in the study area. Because the intersections through the neighborhood and along 99th Ave NE were determined to be the most critical for this analysis and the elementary school is the largest generator of traffic in the neighborhood, the volumes from the 8:30-9:30 AM was considered to be the AM peak hour, and 4:00-5:00 was considered to be the PM peak hour. The 8:30-9:30 AM peak hour highlights the highest volumes along 99th Ave and through the neighborhood streets. The 4:00-5:00 PM peak hour highlights the highest volume of the day at both University Ave NE at 101st Ave NE as well as the majority of the peak hour at 99th Ave NE at University Ave/Frontage Rd. This also coincides with a 4:00 school release time. In both peak hours that were modeled, any volume disparity was increased to analyze a 'worst case scenario' situation. **Table 8** details the approach delay, intersection delay, LOS, and queuing information for each intersection under the existing roadway network and traffic volumes.

Table 8: Existing Conditions Operational Results

		AM Peak Hour																
Intersection	Approach	Traffic Delay (sec/veh)				Intersection (Delay - LOS)	Traffic Queuing (feet)											
		Movement (Delay - LOS)			Approach (Delay - LOS)		Left Turn			Through			Right Turn					
		L	T	R			Storage	Avg	Max	Link Length	Avg	Max	Storage	Avg	Max			
University Ave NE at 101st Ave NE <i>Signalized Intersection</i>	EB	42 - D	46 - D	21 - C	39 - D	25 - C	175	50	125	250	75	175	-	75	175			
	WB	43 - D	39 - D	19 - B	38 - D		175	75	175	375	50	125	-	50	125			
	NB	56 - E	14 - B	2 - A	21 - C		300	75	200	2300	75	175	450	25	75			
	SB	54 - D	16 - B	3 - A	18 - B		300	50	150	1050	125	250	300	25	50			
99th Ave NE at 101st Ave NE <i>Side Street Stop Controlled</i>	EB	8 - A	-	3 - A	6 - A	3 - A	-	25	75	-	-	-	-	25	75			
	WB	-	-	-	-		-	-	-	-	-	-	-	-	-			
	NB	4 - A	1 - A	-	2 - A		-	25	75	250	25	75	-	-	-			
	SB	-	4 - A	4 - A	4 - A		-	-	-	-	25	25	-	25	25			
Clover Leaf Pkwy at 99th Ave NE <i>Signalized Intersection</i>	EB	3 - A	3 - A	2 - A	3 - A	8 - A	-	25	50	250	25	100	-	25	100			
	WB	4 - A	3 - A	0 - A	3 - A		-	25	75	1525	25	75	-	25	50			
	NB	30 - C	27 - C	5 - A	24 - C		150	75	125	225	25	75	-	25	75			
	SB	30 - C	24 - C	4 - A	13 - B		-	25	50	400	25	50	200	25	50			
Frontage Rd at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	-	-	-	-	1 - A	-	-	-	-	-	-	-	-	-			
	WB	0 - A	0 - A	1 - A	1 - A		-	25	50	-	-	-	-	25	50			
	NB	-	2 - A	2 - A	2 - A		-	-	-	-	-	-	-	-	-			
	SB	-	-	-	-		-	-	-	-	-	-	-	-	-			
3rd St NE/School Driveway at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	-	0 - A	0 - A	0 - A	2 - A	-	-	-	-	-	-	-	-	-			
	WB	2 - A	1 - A	0 - A	1 - A		-	0	25	-	0	25	-	0	25			
	NB	4 - A	7 - A	3 - A	5 - A		-	25	75	275	25	75	-	25	75			
	SB	5 - A	-	4 - A	5 - A		-	25	75	75	25	75	-	25	75			
5th St NE at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	-	0 - A	-	0 - A	0 - A	-	-	-	150	-	-	-	-	-			
	WB	2 - A	0 - A	-	1 - A		-	-	-	-	-	-	-	-	-			
	NB	-	-	-	-		-	-	-	-	-	-	-	-	-			
	SB	-	-	-	-		-	-	-	-	-	-	-	-	-			
6th St NE at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	-	0 - A	-	0 - A	0 - A	-	-	-	-	-	-	-	-	-			
	WB	2 - A	0 - A	-	1 - A		-	-	-	325	-	-	-	-	-			
	NB	5 - A	-	2 - A	3 - A		-	25	50	-	-	-	-	25	50			
	SB	-	-	-	-		-	-	-	-	-	-	-	-	-			
Frontage Rd at 97th Ave NE <i>Side Street Stop Controlled</i>	EB	-	-	-	-	4 - A	-	-	-	-	-	-	-	-	-			
	WB	-	-	-	-		-	-	-	-	-	-	-	-	-			
	NB	-	6 - A	3 - A	5 - A		-	-	-	275	50	50	-	50	50			
	SB	0 - A	-	-	0 - A		-	-	-	-	-	-	-	-	-			
		Traffic Delay (sec/veh)				PM Peak Hour												
Intersection	Approach	Traffic Delay (sec/veh)				Intersection (Delay - LOS)	Traffic Queuing (feet)											
		Movement (Delay - LOS)			Approach (Delay - LOS)		Left Turn			Through			Right Turn					
		L	T	R			Storage	Avg	Max	Link Length	Avg	Max	Storage	Avg	Max			
University Ave NE at 101st Ave NE <i>Signalized Intersection</i>	EB	36 - D	45 - D	27 - C	39 - D	32 - C	175	100	200	250	125	250	-	125	250			
	WB	41 - D	45 - D	32 - C	42 - D		175	100	175	375	100	175	-	100	175			
	NB	74 - E	30 - C	6 - A	31 - C		300	150	375	2300	325	500	450	50	200			
	SB	56 - E	21 - C	4 - A	23 - C		300	75	175	1050	150	225	300	25	75			
99th Ave NE at 101st Ave NE <i>Side Street Stop Controlled</i>	EB	12 - B	-	7 - A	11 - B	3 - A	-	50	100	-	-	-	-	50	100			
	WB	-	-	-	-		-	-	-	-	-	-	-	-	-			
	NB	5 - A	1 - A	-	2 - A		-	25	50	250	25	50	-	-	-			
	SB	-	3 - A	2 - A	3 - A		-	-	-	-	-	-	-	-	-			
Clover Leaf Pkwy at 99th Ave NE <i>Signalized Intersection</i>	EB	6 - A	5 - A	2 - A	5 - A	7 - A	-	50	125	250	50	150	-	50	150			
	WB	6 - A	4 - A	1 - A	4 - A		-	50	100	1525	50	100	-	25	75			
	NB	30 - C	25 - C	6 - A	26 - C		150	75	125	225	25	75	-	25	75			
	SB	25 - C	26 - C	4 - A	14 - B		-	25	75	400	25	75	200	25	50			
Frontage Rd at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	-	-	-	-	10 - B	-	-	-	-	-	-	-	-	-			
	WB	-	0 - A	14 - B	12 - B		-	25	100	-	-	-	-	25	100			
	NB	-	2 - A	2 - A	2 - A		-	-	-	-	-	-	-	-	-			
	SB	-	-	-	-		-	-	-	-	-	-	-	-	-			
3rd St NE/School Driveway at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	-	0 - A	-	0 - A	2 - A	-	-	-	-	-	-	-	-	-			
	WB	2 - A	0 - A	0 - A	1 - A		-	-	-	-	-	-	-	-	-			
	NB	4 - A	9 - A	2 - A	4 - A		-	25	50	275	25	50	-	25	50			
	SB	5 - A	-	3 - A	4 - A		-	25	75	75	25	75	-	25	75			
5th St NE at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	-	0 - A	0 - A	0 - A	0 - A	-	-	-	-	-	-	-	-	-			
	WB	2 - A	0 - A	-	1 - A		-	0	25	150	0	25	-	-	-			
	NB	-	-	-	-		-	-	-	-	-	-	-	-	-			
	SB	-	-	-	-		-	-	-	-	-	-	-	-	-			
6th St NE at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	-	0 - A	0 - A	0 - A	1 - A	-	-	-	-	-	-	-	-	-			
	WB	2 - A	0 - A	-	1 - A		-	25	25	325	25	25	-	-	-			
	NB	6 - A	-	2 - A	3 - A		-	25	50	-	-	-	-	25	50			
	SB	-	-	-	-		-	-	-	-	-	-	-	-	-			
Frontage Rd at 97th Ave NE <i>Side Street Stop Controlled</i>	EB	-	-	-	-	3 - A	-	-	-	-	-	-	-	-	-			
	WB	-	-	-	-		-	-	-	-	-	-	-	-	-			
	NB	-	6 - A	2 - A	3 - A		-	-	-	275	50	75	-	50	75			
	SR	-	-	-	-		-	-	-	-	-	-	-	-	-			

Table 8 shows that all intersections are currently operating with LOS C or better in both peak hours of the day. The side street stop-controlled intersections all operate with LOS A overall, with the exception of the frontage road and University Ave NE connection at 99th in the PM peak hour due to the delay of the westbound right. The intersection operates with an overall delay of 10 seconds per vehicle and LOS B. The higher delay is likely due to the backup that occurs on University Ave NE from the signal at 101st Ave NE.

Build Analysis

Traffic operations were additionally considered under a scenario in which an 111-unit apartment building is constructed on the corner of 101st Ave NE and 99th Ave NE. The ITE Trip Generation Manual (11th Edition) was used to determine how many trips the proposed residential development would add to the roadway network during the peak hours. **Table 9** below shows the total number of trips generated during each of the peak hours with the anticipated 111 dwelling units, as well as their proportional split between trips entering and exiting the proposed site. The proposed site was assumed to have a driveway on to 99th Ave NE to the east of the Royal Oaks Apartment entrance for the purposes of this analysis.

Table 9: Trip Generation for 111-Unit Apartment Building

(ITE Land Use Code 221) MultiFamily Housing- Mid Rise			
Based on 111 Dwelling Units			
	Entering	Exiting	Total
AM Peak	10	32	42
PM Peak	27	17	44
Weekday	252	252	504

During the AM peak hour 10 trips are anticipated to enter the proposed site and 32 are anticipated to exit, 42 trips total. In the PM peak hour, 27 trips are anticipated to enter the proposed site, and 17 are anticipated to exit, 44 trips total. Over the whole day, it is anticipated that 504 total new trips will be produced by the addition of the proposed site. These new trips include residents, visitors, delivery vehicles, and any other vehicles that may visit during a typical day.

These volumes were added to the proposed driveway and spread through the network proportionally based on existing traffic patterns. The build scenario turning movement counts by intersection can be found in the **Appendix**.

An operational analysis was also conducted for the build condition. **Table 10** shows the operational results with the proposed apartment building driveway intersecting 99th Ave NE between 6th St NE and 7th St NE.

Table 10: Build Condition Operational Results

						AM Peak Hour									
Intersection	Approach	Traffic Delay (sec/veh)				Intersection (Delay - LOS)	Traffic Queuing (feet)								
		Movement (Delay - LOS)			Approach (Delay - LOS)		Left Turn			Through			Right Turn		
		L	T	R			Storage	Avg	Max	Link Length	Avg	Max	Storage	Avg	Max
University Ave NE at 101st Ave NE <i>Signalized Intersection</i>	EB	38 - D	46 - D	20 - C	38 - D	24 - C	175	50	125	250	75	175	-	75	175
	WB	44 - D	39 - D	19 - B	38 - D		175	100	200	375	75	125	-	75	125
	NB	54 - D	13 - B	2 - A	19 - B		300	75	200	2300	75	150	450	25	75
	SB	55 - E	16 - B	3 - A	19 - B		300	50	150	1050	150	225	300	25	75
99th Ave NE at 101st Ave NE <i>Side Street Stop Controlled</i>	EB	8 - A	0 - A	5 - A	7 - A	3 - A	-	25	100	-	-	-	-	25	100
	WB	-	-	-	-		-	-	-	-	-	-	-	-	-
	NB	3 - A	1 - A	-	2 - A		-	25	75	250	25	75	-	-	-
	SB	-	4 - A	3 - A	4 - A		-	-	-	-	0	25	-	0	25
Clover Leaf Pkwy at 99th Ave NE <i>Signalized Intersection</i>	EB	4 - A	4 - A	2 - A	4 - A	8 - A	-	25	75	250	25	75	-	25	75
	WB	3 - A	3 - A	0 - A	3 - A		-	25	75	1525	25	75	-	25	50
	NB	30 - C	23 - C	4 - A	24 - C		150	75	150	225	25	75	-	25	75
	SB	24 - C	25 - C	4 - A	13 - B		-	25	75	400	25	75	200	25	50
Frontage Rd at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	-	-	-	-	1 - A	-	-	-	-	-	-	-	-	-
	WB	0 - A	0 - A	1 - A	1 - A		-	25	75	-	-	-	-	25	75
	NB	-	2 - A	2 - A	2 - A		-	-	-	-	-	-	-	-	-
	SB	-	-	-	-		-	-	-	-	-	-	-	-	-
3rd St NE/School Driveway at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	-	0 - A	0 - A	0 - A	2 - A	-	-	-	-	-	-	-	-	-
	WB	2 - A	1 - A	0 - A	1 - A		-	-	-	-	-	-	-	-	-
	NB	5 - A	7 - A	3 - A	6 - A		-	25	50	275	25	50	-	25	50
	SB	6 - A	4 - A	4 - A	5 - A		-	25	75	75	25	75	-	25	75
5th St NE at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	-	0 - A	-	0 - A	0 - A	-	-	-	-	-	-	-	-	-
	WB	2 - A	0 - A	-	1 - A		-	-	-	150	-	-	-	-	-
	NB	-	-	-	-		-	-	-	-	-	-	-	-	-
	SB	-	-	-	-		-	-	-	-	-	-	-	-	-
6th St NE at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	-	0 - A	-	0 - A	0 - A	-	-	-	-	-	-	-	-	-
	WB	1 - A	0 - A	-	1 - A		-	-	-	325	-	-	-	-	-
	NB	4 - A	-	2 - A	3 - A		-	25	50	-	-	-	-	25	50
	SB	-	-	-	-		-	-	-	-	-	-	-	-	-
Frontage Rd at 97th Ave NE <i>Side Street Stop Controlled</i>	EB	-	-	-	-	4 - A	-	-	-	-	-	-	-	-	-
	WB	-	-	-	-		-	-	-	-	-	-	-	-	-
	NB	-	6 - A	3 - A	5 - A		-	-	-	275	50	50	-	50	50
	SB	-	0 - A	-	0 - A		-	-	-	-	-	-	-	-	-
Proposed Driveway at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	3 - A	0 - A	-	1 - A	1 - A	-	0	25	100	0	25	-	-	-
	WB	-	0 - A	0 - A	0 - A		-	-	-	-	-	-	-	-	-
	NB	-	-	-	-		-	-	-	-	-	-	-	-	-
	SB	5 - A	-	3 - A	5 - A		-	25	50	-	-	-	-	25	50

						PM Peak Hour									
Intersection	Approach	Traffic Delay (sec/veh)				Intersection (Delay - LOS)	Traffic Queuing (feet)								
		Movement (Delay - LOS)			Approach (Delay - LOS)		Left Turn			Through			Right Turn		
		L	T	R			Storage	Avg	Max	Link Length	Avg	Max	Storage	Avg	Max
University Ave NE at 101st Ave NE <i>Signalized Intersection</i>	EB	40 - D	47 - D	26 - C	41 - D	32 - C	175	100	200	250	100	225	-	100	225
	WB	40 - D	44 - D	32 - C	41 - D		175	75	175	375	100	175	-	100	175
	NB	68 - E	31 - C	7 - A	32 - C		300	150	375	2300	325	550	450	50	200
	SB	58 - E	20 - C	3 - A	24 - C		300	100	200	1050	125	225	300	25	75
99th Ave NE at 101st Ave NE <i>Side Street Stop Controlled</i>	EB	14 - B	0 - A	6 - A	11 - B	3 - A	-	50	100	-	-	-	-	50	100
	WB	-	-	-	-		-	-	-	-	-	-	-	-	-
	NB	4 - A	1 - A	-	2 - A		-	25	50	250	25	50	-	-	-
	SB	-	3 - A	2 - A	3 - A		-	-	-	-	0	25	-	0	25
Clover Leaf Pkwy at 99th Ave NE <i>Signalized Intersection</i>	EB	5 - A	5 - A	2 - A	5 - A	8 - A	-	50	100	250	50	125	-	50	125
	WB	8 - A	4 - A	1 - A	5 - A		-	50	100	1525	50	100	-	25	75
	NB	32 - C	26 - C	6 - A	27 - C		150	75	150	225	25	75	-	25	75
	SB	20 - C	29 - C	4 - A	14 - B		-	25	75	400	25	75	200	25	50
Frontage Rd at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	-	-	-	-	10 - B	-	-	-	-	-	-	-	-	-
	WB	-	0 - A	15 - C	13 - B		-	25	100	-	-	-	-	25	100
	NB	-	2 - A	2 - A	2 - A		-	-	-	-	-	-	-	-	-
	SB	-	-	-	-		-	-	-	-	-	-	-	-	-
3rd St NE/School Driveway at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	1 - A	0 - A	-	1 - A	2 - A	-	0	25	-	0	25	-	0	25
	WB	2 - A	0 - A	0 - A	1 - A		-	0	25	-	0	25	-	0	25
	NB	4 - A	6 - A	3 - A	4 - A		-	25	50	275	25	50	-	25	50
	SB	5 - A	-	3 - A	4 - A		-	25	75	75	25	75	-	25	75
5th St NE at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	-	0 - A	0 - A	0 - A	0 - A	-	-	-	-	-	-	-	-	-
	WB	2 - A	0 - A	-	1 - A		-	0	25	150	0	25	-	-	-
	NB	-	-	-	-		-	-	-	-	-	-	-	-	-
	SB	-	-	-	-		-	-	-	-	-	-	-	-	-
6th St NE at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	-	0 - A	0 - A	0 - A	1 - A	-	-	-	-	-	-	-	-	-
	WB	2 - A	0 - A	-	1 - A		-	25	50	325	25	50	-	-	-
	NB	4 - A	-	3 - A	4 - A		-	25	50	-	-	-	-	25	50
	SB	-	-	-	-		-	-	-	-	-	-	-	-	-
Frontage Rd at 97th Ave NE <i>Side Street Stop Controlled</i>	EB	-	-	-	-	4 - A	-	-	-	-	-	-	-	-	-
	WB	-	-	-	-		-	-	-	-	-	-	-	-	-
	NB	-	6 - A	3 - A	5 - A		-	-	-	275	50	75	-	50	75
	SB	-	-	-	-		-	-	-	-	-	-	-	-	-
Proposed Driveway at 99th Ave NE <i>Side Street Stop Controlled</i>	EB	3 - A	0 - A	-	1 - A	1 - A	-	25	25	100	25	25	-	-	-
	WB	-	0 - A	0 - A	0 - A		-	-	-	-	-	-	-	-	-
	NB	-	-	-	-		-	-	-	-	-	-	-	-	-
	SB	6 - A	-	6 - A	6 - A		-	25	50	-	-	-	-	25	50

Each intersection movement remains operating with the same LOS or within 2 seconds of delay when compared to the existing condition. Based on this analysis, the proposed driveway does not impact nearby intersections' operational performance or capacity, nor does it produce queues that back into nearby intersections or residential driveways.

Alternatives Analysis

While operations are acceptable with the proposed development, as previously stated, the intersection of 99th Ave NE and 101st Ave NE meets warrants for a change in traffic control. Four scenarios were preliminarily analyzed for traffic operations at the intersections of 99th Ave NE and 101st Ave NE as well as 99th Ave NE at Cloverleaf Pkwy. The intersection of 99th Ave NE and 101st Ave NE is warranted for a traffic signal and all-way stop control (via the signal warrant). Because it is warranted for these, a roundabout is also considered a reasonable option and was therefore included in this analysis.

Scenario 1 includes an all-way stop control at the intersection of 99th Ave NE and 101st Ave NE and maintains the current signal and lane configuration at 99th Ave NE at Clover Leaf Pkwy. Scenario 2 considers a signal at both intersections- these would operate in coordination and were considered to have identical phasing and lane configurations (without the second minor street approach at 99th Ave NE and 101st Ave NE). Scenario 3 considers a single lane roundabout at 99th Ave NE and 101st Ave NE and maintains the signal at 99th Ave NE and Clover Leaf Pkwy. A single lane roundabout would require the mainline to have a lane drop or restriped to a three-lane roadway. Scenario 3 assumes 100 feet of storage for the eastbound left turn lane at Clover Leaf Pkwy. Lastly, Scenario 4 consists of both intersections as single lane roundabout, the same lane-drop or conversion needs from scenario 3 apply.

The all-way stop controlled and signalized intersections were analyzed in traffic simulation software, SimTraffic, where the single lane roundabout results were derived from the HCM 6th Edition calculations in Synchro. **Tables 11-14** show the operational results at these two intersections under each scenario. These changes were not considered to impact other nearby intersections, and therefore only these two intersections were included in this analysis.

Table 11: Build Condition- Alternative Scenario 1

Intersection	Approach	AM Peak Hour					PM Peak Hour				
		Traffic Delay (sec/veh)		Traffic Queuing (feet)			Traffic Delay (sec/veh)		Traffic Queuing (feet)		
		Approach (Delay - LOS)	Intersection (Delay - LOS)	Approach Queue			Approach (Delay - LOS)	Intersection (Delay - LOS)	Approach Queue		
				Storage	Avg	Max			Storage	Avg	Max
99th Ave NE at 101st Ave NE <i>All-Way Stop Controlled Intersection</i>	EB	5 - A	8 - A	250	25	75	5 - A	10 - B	250	50	75
	WB	-		-	-	-	-		-	-	-
	NB	8 - A		250	50	75	9 - A		250	50	100
	SB	10 - B		-	-	-	12 - B		-	75	125
Clover Leaf Pkwy at 99th Ave NE <i>Signalized Intersection</i>	EB	6 - A	10 - B	250	25	75	7 - A	9 - A	250	50	125
	WB	4 - A		1525	25	75	5 - A		1525	50	125
	NB	26 - C		225	75	150	25 - C		225	75	150
	SB	16 - B		400	25	50	14 - B		400	25	75

Table 12: Build Condition- Alternative Scenario 2

Intersection	Approach	AM Peak Hour					PM Peak Hour				
		Traffic Delay (sec/veh)		Traffic Queuing (feet)			Traffic Delay (sec/veh)		Traffic Queuing (feet)		
		Approach (Delay - LOS)	Intersection (Delay - LOS)	Approach Queue			Approach (Delay - LOS)	Intersection (Delay - LOS)	Approach Queue		
				Storage	Avg	Max			Storage	Avg	Max
99th Ave NE at 101st Ave NE <i>Signalized Intersection</i>	EB	26 - C	6 - A	250	50	200	29 - C	7 - A	250	75	150
	WB	-		-	-	-	-		-	-	-
	NB	4 - A		250	25	75	4 - A		250	25	100
	SB	5 - A		-	-	-	6 - A		-	-	-
Clover Leaf Pkwy at 99th Ave NE <i>Signalized Intersection</i>	EB	4 - A	10 - B	250	25	75	5 - A	8 - A	250	25	100
	WB	4 - A		1525	25	75	6 - A		1525	50	125
	NB	29 - C		225	75	150	28 - C		225	75	150
	SB	14 - B		400	25	75	16 - B		400	25	75

Table 13: Build Condition- Alternative Scenario 3

Intersection	Approach	AM Peak Hour					PM Peak Hour				
		Traffic Delay (sec/veh)		Traffic Queuing (feet)			Traffic Delay (sec/veh)		Traffic Queuing (feet)		
		Approach (Delay - LOS)	Intersection (Delay - LOS)	Approach Queue			Approach (Delay - LOS)	Intersection (Delay - LOS)	Approach Queue		
				Storage	Avg	Max			Storage	Avg	Max
99th Ave NE at 101st Ave NE <i>Single Lane Roundabout</i>	EB	4 - A	6 - A	250	-	-	6 - A	6 - A	250	-	-
	WB	-		-	-	-	-		-	-	-
	NB	5 - A		250	-	25	6 - A		250	-	25
	SB	5 - A		-	-	25	7 - A		-	-	50
Clover Leaf Pkwy at 99th Ave NE <i>Signalized Intersection</i>	EB	4 - A	10 - B	250	25	25	6 - A	9 - A	250	25	50
	WB	4 - A		1525	25	50	6 - A		1525	25	75
	NB	26 - C		225	75	150	26 - C		225	75	150
	SB	13 - B		400	25	50	15 - B		400	25	50

Table 14: Build Condition- Alternative Scenario 4

Intersection	Approach	AM Peak Hour					PM Peak Hour				
		Traffic Delay (sec/veh)		Traffic Queuing (feet)			Traffic Delay (sec/veh)		Traffic Queuing (feet)		
		Approach (Delay - LOS)	Intersection (Delay - LOS)	Approach Queue			Approach (Delay - LOS)	Intersection (Delay - LOS)	Approach Queue		
				Storage	Avg	Max			Storage	Avg	Max
99th Ave NE at 101st Ave NE <i>Single Lane Roundabout</i>	EB	4 - A	6 - A	250	-	-	6 - A	6 - A	250	-	-
	WB	-		-	-	-	-		-	-	-
	NB	5 - A		250	-	25	6 - A		250	-	25
	SB	5 - A		-	-	25	7 - A		-	-	50
Clover Leaf Pkwy at 99th Ave NE <i>Single Lane Roundabout</i>	EB	4 - A	4 - A	250	-	25	7 - A	6 - A	250	-	50
	WB	4 - A		1525	-	25	6 - A		1525	-	25
	NB	4 - A		225	-	-	5 - A		225	-	25
	SB	4 - A		400	-	-	5 - A		400	-	-

Tables 11-14 indicate that any of the four scenarios would operate with LOS B or better for the entire intersection during both peak hours.

At 99th Ave NE and 101st Ave NE, the delay for the entire intersection increases just slightly in each scenario due to the distribution of delay across all approaches. They all remain LOS A except for scenario 1, which indicates that the intersection would operate at LOS B with an all-way stop control, where it previously operated at LOS A in its existing condition. The eastbound approach of 99th Ave NE at 101st Ave NE improves in every scenario except when signalized in scenario 2 due to the nature of the cycle and phasing required to accommodate all vehicles. This is true for both peak hours.

At 99th Ave NE and Clover Leaf Pkwy, delay remains within 2 seconds of the existing configuration when the 99th/101st intersection undergoes changes and therefore introduces new traffic volume patterns to

the intersection. Scenario 4 is the only scenario in which the configuration changes, where delay decreases for both peak hours, and LOS improves to A.

None of the scenarios induce a queue from one intersection that is anticipated to compromise the operations of the other. With build volumes, any of the above scenarios would be acceptable options for reconfiguration of the two intersections. Though they operate effectively with the volumes proposed, there may be concerns under some of the scenarios that should be considered when determining the appropriate traffic control and geometric option and should be weighed in when determining a final reconfiguration choice:

- Alternative Scenarios 1 and 3 would distribute volume between the intersections unevenly due to the presence of an all-way stop controlled intersection (even distribution of vehicles) close to a signal (vehicles generally move together) or the presence of a roundabout (uneven distribution of vehicles) close to a signal (vehicles generally move together). This has the ability to potentially create uneven traffic flow between the mixed intersection control types, all based on arrival of the traffic at the intersection of 99th Ave NE and 101st Ave NE. It should be noted that a signal and roundabout in close proximity can work effectively depending on the traffic arrival under specific site conditions but it is preferred that a roundabout be located far enough away from a signal to not impact the traffic movements at the signal.
- Alternative 2, dual signals, would likely be designed in coordination, where the mainline would get the green phase at the same time. This would prevent large volumes being released at one intersection getting stuck immediately at the next. The side-street volumes are anticipated to be low enough in the build condition, where they are not anticipated to block the space between intersections while waiting for the next green. Alternative 2 would be recommended with a three-lane section along 99th Ave NE, so that mainline left turning volume has its own space to wait for a gap in traffic and make their turn. This would also alleviate any confusion of a vehicle's lane placement and intended maneuver at one intersection from the next.
- Alternative 4, two single-lane roundabouts, is anticipated to work the best in alleviating uneven traffic flow, reducing speed, improving pedestrian and vehicular safety, and improving sightlines.
- While the horizontal curvature of the road along 101st Ave NE northwest of 99th Ave NE is maneuverable, the combination of a four-lane section and two intersections may make it difficult to discern oncoming traffic speed or the location of turns.
- At the intersection of Clover Leaf Parkway and 99th Ave NE, four angle crashes and four left-turn crashes have occurred in the last five years. These types of crashes are typical at a signalized intersection and are anticipated to be reduced with the installation of a roundabout.

Additional Considerations

School Peak Queuing

The proximity of University Avenue Elementary School has an impact on daily traffic volume and patterns within the neighborhood and surrounding roadways. Based on a field and video review, it was noted that pick-up and drop-off queues for the school occur in the morning and afternoon peak hours as consistent with neighborhood comments. The queue occurs on the north side of 99th Ave NE as vehicles wait to enter the school circulation lot. The roadway width in this section of roadway is approximately 42 feet and vehicles line up along the edge of the roadway. Due to this there is minimal operational

impact from this queue to other motorists intending to drive straight through this area bypassing the school queue, although it may feel uncomfortable to a driver. This can be a positive to reduce traffic speeds, but sudden vehicle movements and the presence of pedestrians can make it feel unsafe with a constant queue of slow-moving vehicles next to vehicles moving at a higher speed. Some sections of 99th Ave NE are signed as no parking or restricted parking, which may cause these queues to move into neighboring streets during the school peak hours. In a review of footage from data collection on April 11th, 2023, the maximum queue seen started at approximately 3:37 pm and was cleared by 3:59 pm. As seen in **Figure 4**, the longest queue observed along the north side of 99th Ave NE was approximately 9-10 vehicles (approximately 250 feet long). Additional space within the school property for drop-off and pick-up may help reduce the number of vehicles queued along 99th Ave NE waiting to enter the school property and should be considered if the school property undergoes changes in the future.

Figure 4: School Pick-Up Queue along 99th Avenue NE



At the pedestrian crossings nearest to the elementary school, there are school crossing guards to assist pedestrians crossing 99th Ave NE in both peak hours. This can also be seen in **Figure 4**, above.

Cut-Through Traffic

During some peak hours, congestion along University Ave NE may cause some drivers to choose an alternate route to get to their destination. An analysis was done to estimate the portion of neighborhood traffic volume that may just be drivers bypassing University Ave NE. From the data collected in April 2023, the traffic volume coming into the neighborhood and leaving the neighborhood was compared to the estimated trips generated for the single-family homes, townhomes, and apartments in the neighborhood. In the PM hour, slightly past school release (in order to analyze only residential traffic), approximately 120 vehicles entered the neighborhood. The estimated trips generated per ITE Trip Generation would be approximately 91 vehicles entering the neighborhood area. This concludes that there may be up to 29 'cut-through' trips throughout the neighborhood throughout the PM peak. This equates to about a quarter of the trips entering the neighborhood. However, the 29 extra trips could partially consist of people coming home and leaving again within an hour, delivery or mail trucks stopping and passing through, or a vehicle dropping off or picking someone up within the neighborhood.

Conclusions

The roadway network within the study area provides connection to multiple land use types, but most notably residential and school traffic. Due to the proximity of the school, vehicular and pedestrian traffic is heaviest at the beginning and end of the school day. This also induces parking and queuing within and near the school property that may not otherwise occur throughout the day. Using data collected in April 2023, the analysis indicated that vehicular operations are within an acceptable level of service and delay thresholds. Additionally, pedestrian traffic at unsignalized crosswalks on or near 99th Ave NE operate within a generally acceptable range. Analysis of the proposed apartment building does not indicate operational concerns due to the increased volume, although the average delay out of the neighborhood would increase (though not enough to decrease the level of service) in the existing roadway configuration. The four alternative intersection traffic control and geometric considerations along 99th/101st (combinations of traffic control at 99th Ave NE and 101st Ave NE and at 99th Ave NE and Clover Leaf Pkwy) suggest that reconfiguration of the two intersections would be operationally acceptable in the build condition. In order to reduce speeds, improve sightlines, and more efficiently move vehicular traffic through the two intersections, it is recommended that two single-lane roundabouts be installed at these intersections. Additionally, a three-lane roadway section on 99th Ave NE to the east and 101st Ave NE to the west would operate effectively with the single-lane nature of the roundabout while still accommodating traffic volumes on these roadways. Due to resident concerns, the potential for development, and upcoming roadway rehabilitation plans, there are opportunities for improvements to the area that may improve the pedestrian experience, reduce vehicle speeds, and/or improve safety and operations at intersections. These mitigation strategies are identified below.

Potential Improvements and Mitigation Strategies

The following identifies potential improvements for the area and are subject to further discussion and potentially additional studies. Should the potential apartment development occur, some improvements are best included with the design and construction of the new site.

General Considerations

- A. Add pedestrian sidewalks and facilities along 99th Ave NE. This would assist residents in the neighborhood, and students get to their destination in a safer manner than walking along the roadway. This could be included on both the north and south side of 99th Ave NE.
- B. Stripe and sign the crosswalks at intersection legs where sidewalk facilities are present (or proposed).
- C.
 - 1) Based on the speed data collected, speed humps or a speed table may be an option to reduce speeds and cut-through traffic on the frontage road. However, the viability of adding speed humps or altering this stretch is subject to first responder vehicle needs and usage.
 - 2) Based on the speed data collected, the speeds measured on the other streets within the area are within the expected range. Curb extensions to narrow the roadway width along these roadways at select locations may be an option to further slow traffic flow.
 - 3) Another consideration for speed and traffic reduction may be to close the access from University Ave NE at 97th Ave NE. With this potential change in access the travel time and distance for someone destined for a location in the neighborhood would increase. For example, in an off-peak hour, a driver starting on University Ave destined for Swan Park in the

neighborhood would travel 0.4 miles (approx. 1 minute) using the current roadway configuration and accessing the neighborhood via 99th Ave NE. If the access was closed, the same driver would continue on University Ave NE, turn right at 101st Ave NE, and then enter the neighborhood on 99th. This route is 1.2 miles and is estimated to take approximately 3 minutes. This change would also be subject to first responder vehicle needs and usage.

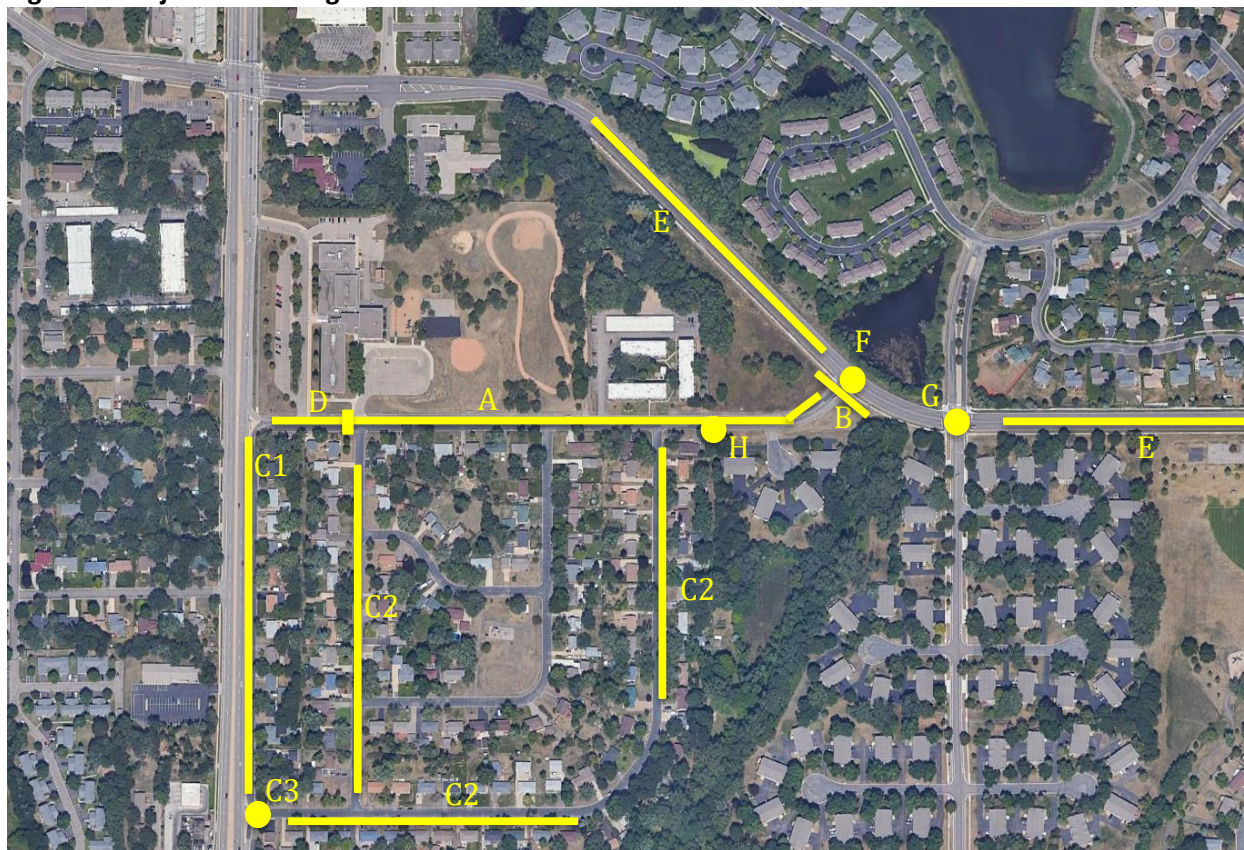
- D. Curb extensions at existing pedestrian crossings would be anticipated to improve visibility of a pedestrian crossing the road, as well as cause drivers to slow down at the narrowed roadway portion. Curb extensions are specifically recommended at the marked school crosswalk across 99th Ave NE to improve pedestrian visibility and reduce crossing length.
- E. 101st Ave NE west of 99th Ave NE and 99th Ave NE east of 101st Ave NE should be further studied as single lane or mini-roundabouts and the corridor considered for a three-lane conversion which would be recommended on the roadway, especially with a change in traffic control on 99th/101st. A three-lane roadway would reduce speeds and provide safety benefits for pedestrians crossing the roadway. This mainline configuration is compatible with the existing condition, or any alternate configuration mentioned previously.

Considerations to Coincide with Potential Development

- F. Though not currently needed for operations or safety, the intersection improvements previously mentioned for the intersection of 99th Ave NE and 101st NE could potentially reduce speeds on 101st Ave NE, assist in turning movements that are potentially challenging due to sightlines and curvature of the roadway, and may reduce delay for the eastbound approach. Additionally, improvements may reduce the potential for crashes at this intersection and assist pedestrians in crossing the street in an easier and more visible manner. A roundabout is recommended at the intersection.
- G. If intersection configuration changes were made at 99th Ave NE and 101st Ave NE, similar changes should be considered at the intersection of 99th Ave NE and Clover Leaf Parkway. A roundabout is recommended at the intersection.
- H. Intersection lighting and a stop sign for the driveway approach at the proposed intersection location on 99th Ave NE is recommended to improve visibility and traffic control. The lighting should be oriented to highlight the intersection and pedestrian facilities on the north side of the roadway.

Figure 5 below highlights the locations of each of these items.

Figure 5: Project Area Mitigation Identification



Appendix

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : 97th Ave and Frontage Rd_04112023_0000-2400

Site Code : 7

Start Date : 4/11/2023

Page No : 1

97th Ave NE at Frontage Rd
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	Frontage Rd Southbound					97th Ave Ne Westbound					University Ave Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
12:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
12:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	3
01:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
01:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
01:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	3
02:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
02:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
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05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
05:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	0	0	0	0	4
06:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
06:15 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
06:30 AM	0	0	0	0	0	0	0	0	0	0	1	4	0	0	5	0	0	0	0	0	5

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

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97th Ave NE at Frontage Rd
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	Frontage Rd Southbound					97th Ave Ne Westbound					University Ave Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
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Total	0	0	1	0	1	1	0	0	0	1	2	9	0	0	11	0	0	0	0	0	13
07:00 AM	0	0	0	0	0	2	0	0	0	2	1	1	0	0	2	0	0	0	0	0	4
07:15 AM	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	0	0	0	0	0	3
07:30 AM	0	0	0	0	0	1	0	0	0	1	2	2	0	0	4	0	0	0	0	0	5
07:45 AM	0	0	0	0	0	0	0	0	0	0	3	5	0	0	8	0	0	0	0	0	8
Total	0	0	0	0	0	3	0	0	0	3	7	10	0	0	17	0	0	0	0	0	20
08:00 AM	0	0	0	0	0	1	0	0	0	1	9	6	0	0	15	0	0	0	0	0	16
08:15 AM	0	0	0	0	0	0	0	0	0	0	2	7	0	0	9	0	0	0	0	0	9
08:30 AM	0	0	0	0	0	0	0	0	0	0	4	9	0	0	13	0	0	0	0	0	13
08:45 AM	0	0	0	0	0	0	0	0	0	0	5	2	0	0	7	0	0	0	0	0	7
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09:15 AM	0	0	1	0	1	0	0	0	0	0	8	9	0	0	17	0	0	0	0	0	18
09:30 AM	0	0	1	0	1	2	0	0	0	2	4	3	0	0	7	0	0	0	0	0	10
09:45 AM	0	0	0	0	0	1	0	0	1	2	2	1	0	0	3	0	0	0	0	0	5
Total	0	0	2	0	2	3	0	0	1	4	21	26	0	0	47	0	0	0	0	0	53
10:00 AM	0	0	0	0	0	1	0	0	0	1	3	2	0	0	5	0	0	0	0	0	6
10:15 AM	0	0	0	0	0	0	0	0	0	0	1	6	0	0	7	0	0	0	0	0	7
10:30 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	1	5	0	0	0	0	0	5
10:45 AM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	4	0	0	0	0	0	4
Total	0	0	0	0	0	1	0	0	0	1	8	12	0	1	21	0	0	0	0	0	22
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11:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
11:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	2
11:45 AM	0	0	1	0	1	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	3
Total	0	0	1	1	2	1	0	0	1	2	10	3	0	0	13	0	0	0	0	0	17
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12:15 PM	0	0	0	0	0	0	0	0	0	0	3	1	0	1	5	0	0	0	0	0	5
12:30 PM	0	0	1	0	1	0	0	0	1	1	6	1	0	0	7	0	0	0	0	0	9
12:45 PM	0	0	0	0	0	1	0	0	0	1	3	0	0	0	3	0	0	0	0	0	4
Total	0	0	1	0	1	1	0	0	1	2	15	4	0	2	21	0	0	0	0	0	24

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

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97th Ave NE at Frontage Rd
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Groups Printed- Cars + - Trucks

	Frontage Rd Southbound					97th Ave Ne Westbound					University Ave Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
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01:30 PM	0	0	0	0	0	1	0	0	0	1	3	1	0	0	4	0	0	0	0	0	5
01:45 PM	0	0	0	0	0	1	0	0	0	1	7	1	0	0	8	0	0	0	0	0	9
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02:15 PM	0	0	0	0	0	0	0	0	0	0	6	3	0	0	9	0	0	0	0	0	9
02:30 PM	0	0	1	0	1	0	0	0	0	0	5	1	0	0	6	0	0	0	0	0	7
02:45 PM	0	0	0	0	0	0	0	0	0	0	7	3	0	0	10	0	0	0	0	0	10
Total	0	0	2	0	2	1	0	0	0	1	21	8	0	1	30	0	0	0	0	0	33
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03:15 PM	0	0	0	0	0	0	0	0	0	0	14	4	0	0	18	0	0	0	0	0	18
03:30 PM	0	0	1	0	1	0	0	0	0	0	10	4	0	0	14	0	0	0	0	0	15
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04:30 PM	0	0	0	0	0	0	0	0	0	0	12	3	0	0	15	0	0	0	0	0	15
04:45 PM	0	0	0	0	0	0	0	0	0	0	9	7	0	0	16	0	0	0	0	0	16
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06:30 PM	0	0	0	1	1	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	3
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Total	0	0	0	1	1	1	0	0	0	1	14	4	0	0	18	0	0	0	0	0	20
07:00 PM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	6	0	0	0	0	0	6
07:15 PM	0	0	0	0	0	0	0	0	0	0	8	3	0	0	11	0	0	0	0	0	11
07:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Bolton & Menk, Inc.

12224 Nicollet Avenue
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97th Ave NE at Frontage Rd
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	Frontage Rd Southbound					97th Ave Ne Westbound					University Ave Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
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Total	0	0	0	0	0	1	0	0	0	1	15	4	0	0	19	0	0	0	0	0	20
08:00 PM	0	0	1	0	1	0	0	0	0	0	2	1	0	0	3	0	0	0	0	0	4
08:15 PM	0	0	0	0	0	0	0	0	0	0	2	3	0	0	5	0	0	0	0	0	5
08:30 PM	0	0	0	0	0	0	0	0	0	0	3	1	0	0	4	0	0	0	0	0	4
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Total	0	0	1	0	1	0	0	0	0	0	14	5	0	0	19	0	0	0	0	0	20
09:00 PM	0	0	0	0	0	1	0	0	0	1	3	1	0	0	4	0	0	0	0	0	5
09:15 PM	0	0	0	0	0	0	0	0	0	0	8	2	0	0	10	0	0	0	0	0	10
09:30 PM	0	0	0	0	0	1	0	0	0	1	3	1	0	0	4	0	0	0	0	0	5
09:45 PM	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	3
Total	0	0	0	0	0	2	0	0	0	2	14	7	0	0	21	0	0	0	0	0	23
10:00 PM	0	0	0	0	0	0	0	0	0	0	7	1	0	0	8	0	0	0	0	0	8
10:15 PM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	5
10:30 PM	0	0	1	0	1	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	3
10:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
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11:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	2
Grand Total	0	0	12	3	15	22	0	0	8	30	341	166	0	4	511	0	0	0	0	0	556
Apprch %	0	0	80	20		73.3	0	0	26.7		66.7	32.5	0	0.8		0	0	0	0		
Total %	0	0	2.2	0.5	2.7	4	0	0	1.4	5.4	61.3	29.9	0	0.7	91.9	0	0	0	0	0	
Cars +	0	0	11	3	14	20	0	0	4	24	334	158	0	3	495	0	0	0	0	0	533
% Cars +	0	0	91.7	100	93.3	90.9	0	0	50	80	97.9	95.2	0	75	96.9	0	0	0	0	0	95.9
Trucks	0	0	1	0	1	2	0	0	4	6	7	8	0	1	16	0	0	0	0	0	23
% Trucks	0	0	8.3	0	6.7	9.1	0	0	50	20	2.1	4.8	0	25	3.1	0	0	0	0	0	4.1

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

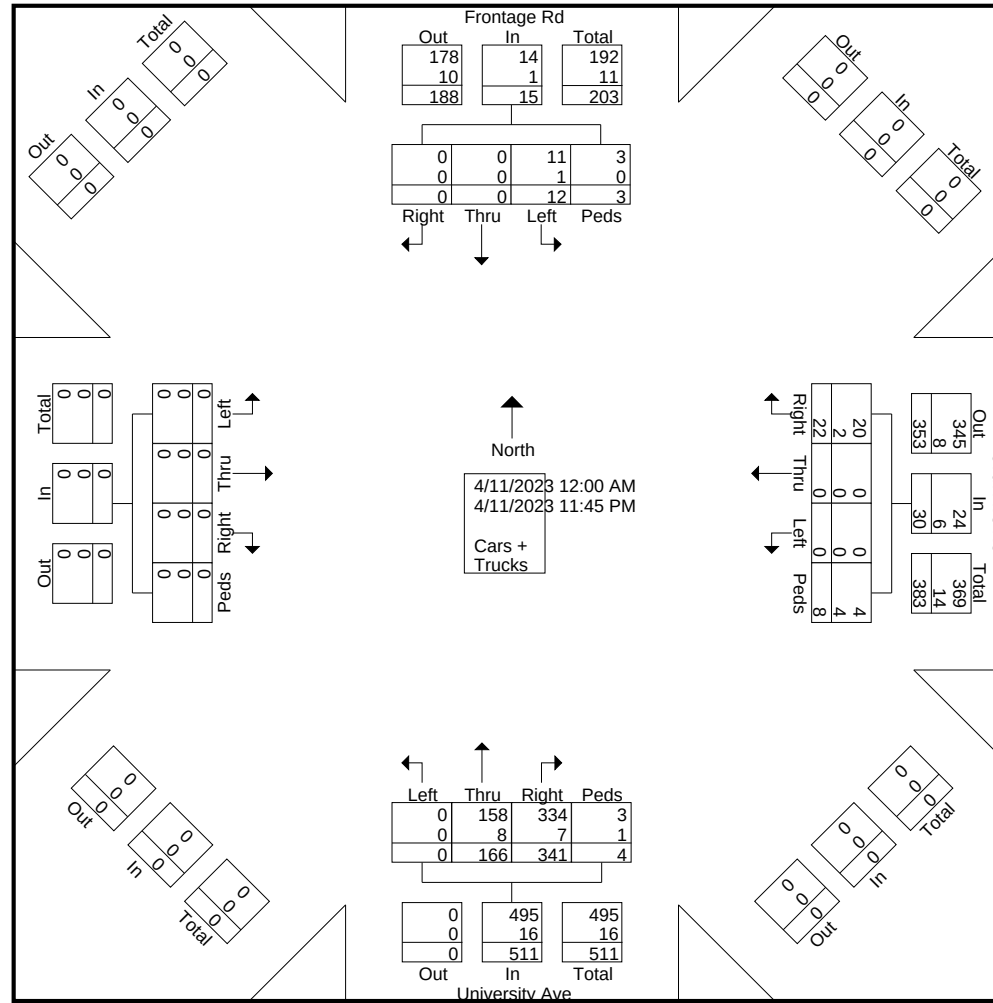
File Name : 97th Ave and Frontage Rd_04112023_0000-2400

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97th Ave NE at Frontage Rd
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97th Ave NE at Frontage Rd
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	Frontage Rd Southbound					97th Ave Ne Westbound					University Ave Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 AM to 12:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:30 AM																					
08:30 AM	0	0	0	0	0	0	0	0	0	0	4	9	0	0	13	0	0	0	0	0	13
08:45 AM	0	0	0	0	0	0	0	0	0	0	5	2	0	0	7	0	0	0	0	0	7
09:00 AM	0	0	0	0	0	0	0	0	0	0	7	13	0	0	20	0	0	0	0	0	20
09:15 AM	0	0	1	0	1	0	0	0	0	0	8	9	0	0	17	0	0	0	0	0	18
Total Volume	0	0	1	0	1	0	0	0	0	0	24	33	0	0	57	0	0	0	0	0	58
% App. Total	0	0	100	0		0	0	0	0		42.1	57.9	0	0		0	0	0	0		
PHF	.000	.000	.250	.000	.250	.000	.000	.000	.000	.000	.750	.635	.000	.000	.713	.000	.000	.000	.000	.000	.725

Bolton & Menk, Inc.

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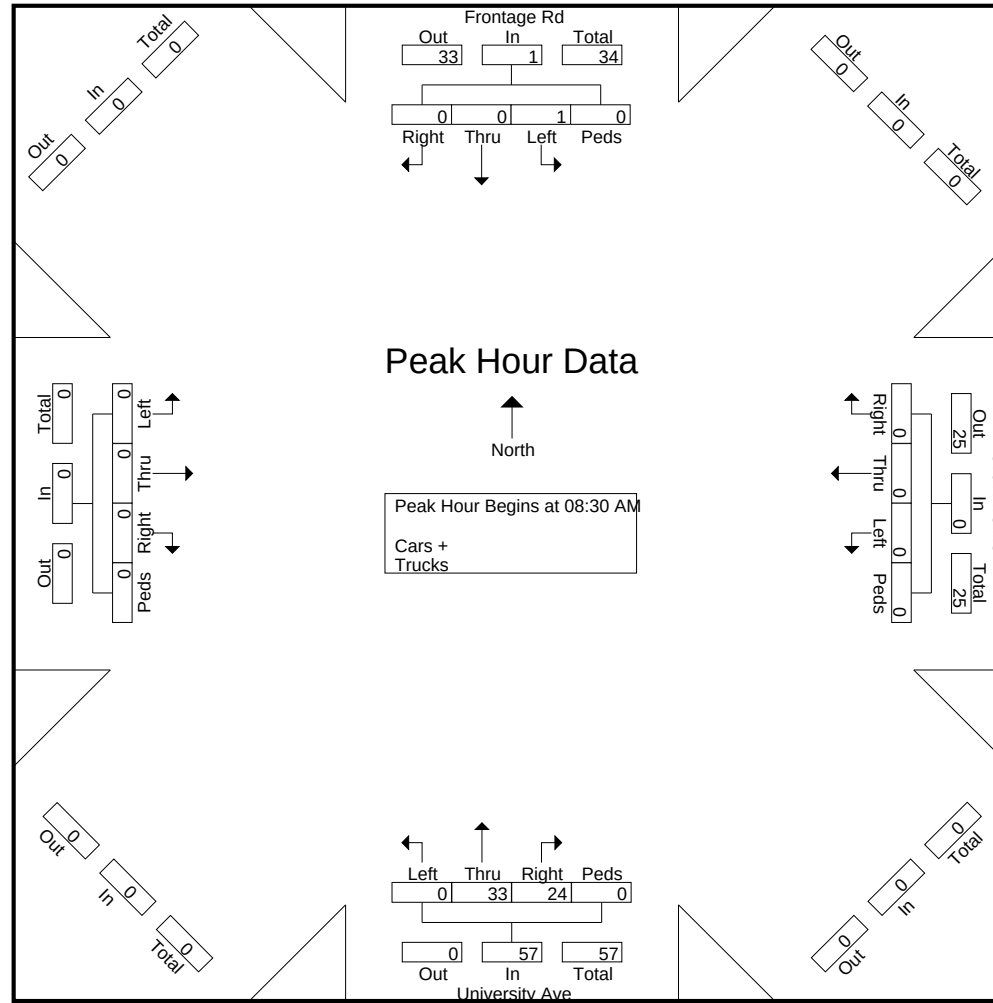
File Name : 97th Ave and Frontage Rd_04112023_0000-2400

Site Code : 7

Start Date : 4/11/2023

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97th Ave NE at Frontage Rd
Blaine, Minnesota



Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : 97th Ave and Frontage Rd_04112023_0000-2400

Site Code : 7

Start Date : 4/11/2023

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97th Ave NE at Frontage Rd
Blaine, Minnesota

	Frontage Rd Southbound					97th Ave Ne Westbound					University Ave Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:15 PM to 11:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:15 PM																					
03:15 PM	0	0	0	0	0	0	0	0	0	0	14	4	0	0	18	0	0	0	0	0	18
03:30 PM	0	0	1	0	1	0	0	0	0	0	10	4	0	0	14	0	0	0	0	0	15
03:45 PM	0	0	0	1	1	0	0	0	2	2	18	1	0	0	19	0	0	0	0	0	22
04:00 PM	0	0	0	0	0	0	0	0	0	0	13	3	0	0	16	0	0	0	0	0	16
Total Volume	0	0	1	1	2	0	0	0	2	2	55	12	0	0	67	0	0	0	0	0	71
% App. Total	0	0	50	50		0	0	0	100		82.1	17.9	0	0		0	0	0	0		
PHF	.000	.000	.250	.250	.500	.000	.000	.000	.250	.250	.764	.750	.000	.000	.882	.000	.000	.000	.000	.000	.807

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

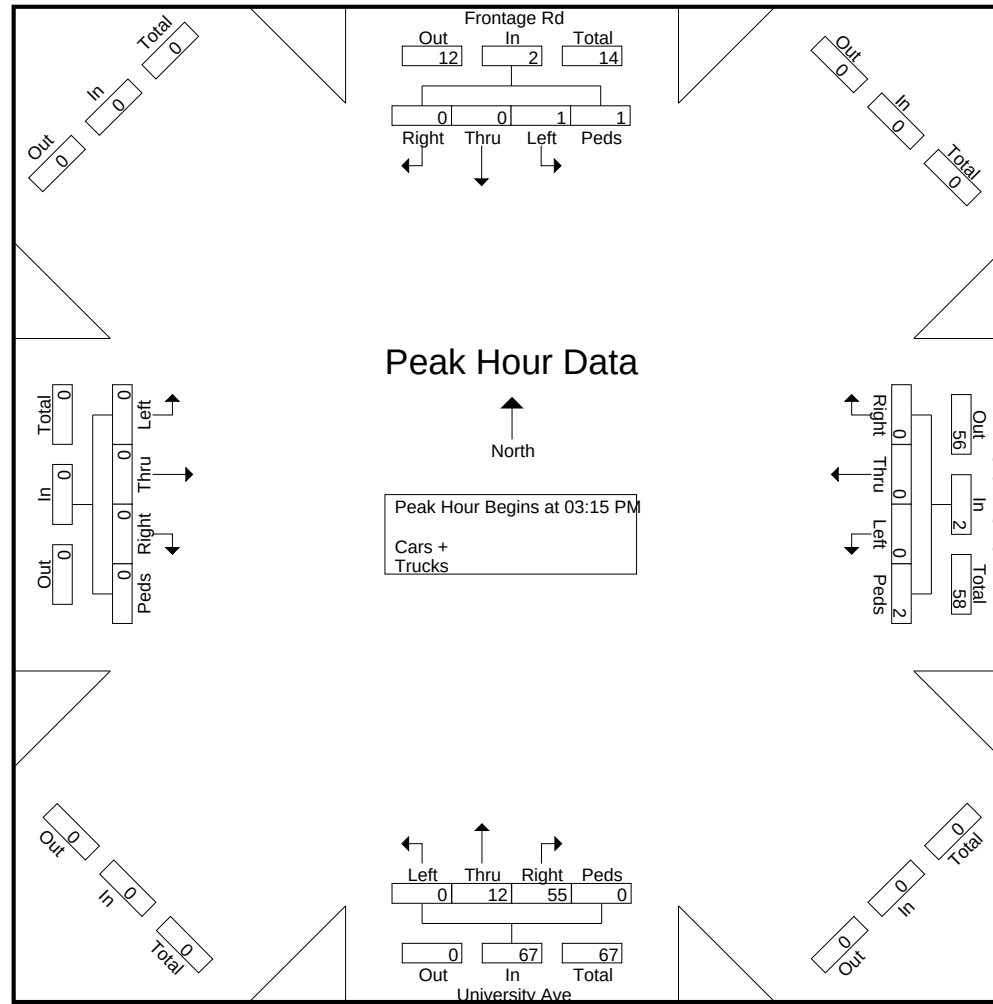
File Name : 97th Ave and Frontage Rd_04112023_0000-2400

Site Code : 7

Start Date : 4/11/2023

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97th Ave NE at Frontage Rd
Blaine, Minnesota



Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : 99th Ave and 3rd St_04112023_0000-2400

Site Code : 7

Start Date : 4/11/2023

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99th Ave NE and 3rd St NE
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	School Driveway Southbound					99th Ave NE Westbound					3rd St NE Northbound					99th Ave NE Eastbound					Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
12:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
01:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	2
02:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
04:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	0	1	0	1	0	0	1	0	1	0	0	0	0	0	2
05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	2
05:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	0	0	0	0	0	4
05:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	2	0	2	0	0	0	0	0	3
Total	0	0	0	0	0	0	4	0	0	4	1	0	4	0	5	0	0	0	0	0	9
06:00 AM	0	0	0	0	0	0	1	1	0	2	1	0	0	0	1	0	0	0	0	0	3
06:15 AM	0	0	0	0	0	0	7	0	0	7	0	0	5	0	5	0	0	0	0	0	12
06:30 AM	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	0	2	0	0	2	8

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : 99th Ave and 3rd St_04112023_0000-2400

Site Code : 7

Start Date : 4/11/2023

Page No : 2

99th Ave NE and 3rd St NE
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	School Driveway Southbound					99th Ave NE Westbound					3rd St NE Northbound					99th Ave NE Eastbound					Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:45 AM	0	0	0	0	0	0	6	0	0	6	0	0	3	0	3	0	3	0	1	4	13
Total	0	0	0	0	0	0	19	1	0	20	1	0	9	0	10	0	5	0	1	6	36
07:00 AM	0	0	0	0	0	1	11	0	0	12	1	0	1	0	2	0	0	0	0	0	14
07:15 AM	0	0	0	0	0	0	13	3	0	16	0	0	6	0	6	0	1	0	0	1	23
07:30 AM	0	0	0	0	0	1	14	0	0	15	0	0	4	0	4	1	0	0	0	1	20
07:45 AM	0	0	0	0	0	7	12	0	0	19	4	1	2	0	7	2	1	0	0	3	29
Total	0	0	0	0	0	9	50	3	0	62	5	1	13	0	19	3	2	0	0	5	86
08:00 AM	0	0	0	0	0	6	9	2	0	17	0	4	2	0	6	4	1	0	0	5	28
08:15 AM	0	0	0	0	0	6	11	1	0	18	1	1	2	0	4	4	1	0	0	5	27
08:30 AM	3	0	0	0	3	4	10	0	0	14	3	0	1	0	4	1	2	0	0	3	24
08:45 AM	0	0	0	0	0	3	11	2	0	16	0	1	5	0	6	0	0	0	4	4	26
Total	3	0	0	0	3	19	41	5	0	65	4	6	10	0	20	9	4	0	4	17	105
09:00 AM	17	0	2	5	24	18	26	3	1	48	4	5	1	0	10	3	1	0	31	35	117
09:15 AM	34	1	17	4	56	28	13	0	0	41	3	7	2	0	12	8	2	0	14	24	133
09:30 AM	1	0	0	0	1	0	1	1	0	2	1	0	0	0	1	0	0	0	0	0	4
09:45 AM	0	0	0	0	0	0	2	1	0	3	1	0	1	0	2	1	0	0	0	1	6
Total	52	1	19	9	81	46	42	5	1	94	9	12	4	0	25	12	3	0	45	60	260
10:00 AM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	1	0	0	1	4
10:15 AM	0	0	0	0	0	0	5	0	0	5	1	0	2	0	3	0	1	0	0	1	9
10:30 AM	0	0	0	0	0	0	7	1	0	8	1	0	0	0	1	0	1	0	0	1	10
10:45 AM	0	0	0	0	0	0	1	2	0	3	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	15	3	0	18	2	0	3	0	5	0	3	0	0	3	26
11:00 AM	0	0	0	1	1	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	3
11:15 AM	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	1	0	0	1	6
11:30 AM	0	0	0	0	0	0	5	0	0	5	0	0	1	0	1	0	0	0	0	0	6
11:45 AM	0	0	0	8	8	0	3	1	0	4	0	0	4	0	4	0	0	0	3	3	19
Total	0	0	0	9	9	0	13	1	0	14	0	0	7	0	7	0	1	0	3	4	34
12:00 PM	0	0	0	0	0	0	8	0	0	8	1	0	1	0	2	0	0	0	0	0	10
12:15 PM	0	0	0	0	0	0	5	2	0	7	0	0	2	0	2	0	0	0	0	0	9
12:30 PM	0	0	1	0	1	0	8	1	0	9	0	0	2	0	2	0	0	0	0	0	12
12:45 PM	0	0	0	0	0	0	9	0	0	9	1	0	2	0	3	0	1	0	0	1	13
Total	0	0	1	0	1	0	30	3	0	33	2	0	7	0	9	0	1	0	0	1	44

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : 99th Ave and 3rd St_04112023_0000-2400

Site Code : 7

Start Date : 4/11/2023

Page No : 3

99th Ave NE and 3rd St NE
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	School Driveway Southbound					99th Ave NE Westbound					3rd St NE Northbound					99th Ave NE Eastbound					Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
01:00 PM	0	0	0	0	0	2	4	0	0	6	0	2	3	0	5	0	0	0	0	0	11
01:15 PM	4	0	1	0	5	0	4	0	0	4	1	0	2	0	3	0	2	0	0	2	14
01:30 PM	0	0	0	2	2	0	2	2	0	4	1	0	0	0	1	0	0	0	0	0	7
01:45 PM	0	0	1	0	1	0	4	1	0	5	2	0	3	0	5	0	0	0	0	0	11
Total	4	0	2	2	8	2	14	3	0	19	4	2	8	0	14	0	2	0	0	2	43
02:00 PM	0	0	0	0	0	0	3	2	0	5	1	0	4	0	5	0	1	0	0	1	11
02:15 PM	0	0	0	1	1	0	3	0	0	3	3	0	2	0	5	0	3	0	0	3	12
02:30 PM	0	0	0	0	0	0	3	1	0	4	1	0	1	0	2	0	1	0	0	1	7
02:45 PM	0	0	0	0	0	1	2	0	0	3	0	0	1	0	1	0	1	1	0	2	6
Total	0	0	0	1	1	1	11	3	0	15	5	0	8	0	13	0	6	1	0	7	36
03:00 PM	1	0	0	0	1	3	3	1	0	7	0	1	0	0	1	0	1	0	0	1	10
03:15 PM	1	0	0	0	1	6	8	2	0	16	2	2	5	1	10	0	1	2	0	3	30
03:30 PM	0	0	0	1	1	10	15	2	0	27	2	1	2	0	5	0	1	0	4	5	38
03:45 PM	14	1	4	0	19	13	15	3	0	31	4	0	7	7	18	0	0	0	98	98	166
Total	16	1	4	1	22	32	41	8	0	81	8	4	14	8	34	0	3	2	102	107	244
04:00 PM	19	0	15	0	34	9	5	1	0	15	3	0	4	0	7	0	1	0	8	9	65
04:15 PM	5	0	10	0	15	0	5	0	0	5	1	0	3	0	4	0	5	1	0	6	30
04:30 PM	3	0	1	0	4	0	2	0	0	2	5	1	2	0	8	0	2	0	0	2	16
04:45 PM	2	0	1	0	3	1	6	2	0	9	4	0	3	0	7	0	4	0	0	4	23
Total	29	0	27	0	56	10	18	3	0	31	13	1	12	0	26	0	12	1	8	21	134
05:00 PM	0	0	1	0	1	2	6	0	0	8	3	0	0	0	3	0	11	0	0	11	23
05:15 PM	1	0	1	0	2	0	7	0	0	7	4	0	2	0	6	0	4	0	0	4	19
05:30 PM	3	0	2	0	5	1	4	1	1	7	0	0	4	0	4	0	6	0	2	8	24
05:45 PM	2	0	1	0	3	0	4	2	0	6	3	0	1	0	4	0	1	1	0	2	15
Total	6	0	5	0	11	3	21	3	1	28	10	0	7	0	17	0	22	1	2	25	81
06:00 PM	1	0	0	0	1	0	6	0	0	6	2	0	5	0	7	0	2	0	0	2	16
06:15 PM	0	0	1	0	1	0	0	1	0	1	2	0	1	0	3	0	0	0	0	0	5
06:30 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	2
06:45 PM	0	0	0	0	0	0	2	1	0	3	2	0	0	0	2	0	0	0	0	0	5
Total	1	0	1	0	2	0	9	2	0	11	6	0	6	0	12	0	3	0	0	3	28
07:00 PM	0	0	0	0	0	2	1	2	0	5	0	0	0	0	0	0	0	0	0	0	5
07:15 PM	0	0	0	0	0	0	1	2	0	3	3	0	1	0	4	0	2	0	0	2	9
07:30 PM	0	0	0	0	0	0	1	2	0	3	0	0	2	0	2	0	0	0	0	0	5

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : 99th Ave and 3rd St_04112023_0000-2400

Site Code : 7

Start Date : 4/11/2023

Page No : 4

99th Ave NE and 3rd St NE
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	School Driveway Southbound					99th Ave NE Westbound					3rd St NE Northbound					99th Ave NE Eastbound					Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:45 PM	0	0	0	0	0	0	0	2	0	2	1	0	1	0	2	0	1	0	0	1	5
Total	0	0	0	0	0	2	3	8	0	13	4	0	4	0	8	0	3	0	0	3	24
08:00 PM	2	0	0	0	2	0	1	2	0	3	0	0	1	0	1	0	1	0	0	1	7
08:15 PM	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	3	0	0	3	6
08:30 PM	0	0	0	0	0	0	4	1	0	5	1	0	0	0	1	0	0	0	0	0	6
08:45 PM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	0	0	0	0	0	4
Total	2	0	0	0	2	0	10	3	0	13	2	0	2	0	4	0	4	0	0	4	23
09:00 PM	0	0	0	0	0	0	1	1	0	2	0	0	4	0	4	0	0	0	1	1	7
09:15 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	1	0	0	1	3
09:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	2
09:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	0	0	2	3
Total	0	0	0	0	0	0	2	2	0	4	1	0	5	0	6	0	4	0	1	5	15
10:00 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	0	0	0	0	0	3
10:45 PM	0	0	0	0	0	0	1	0	0	1	1	0	1	0	2	0	0	0	0	0	3
Total	0	0	0	0	0	0	5	0	0	5	2	0	2	0	4	0	0	0	0	0	9
11:00 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	2
11:15 PM	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	2
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
Total	0	0	0	0	0	0	2	1	0	3	1	0	1	0	2	0	0	0	0	0	5
Grand Total	113	2	59	22	196	124	350	60	2	536	81	26	127	8	242	24	79	5	166	274	1248
Apprch %	57.7	1	30.1	11.2		23.1	65.3	11.2	0.4		33.5	10.7	52.5	3.3		8.8	28.8	1.8	60.6		
Total %	9.1	0.2	4.7	1.8	15.7	9.9	28	4.8	0.2	42.9	6.5	2.1	10.2	0.6	19.4	1.9	6.3	0.4	13.3	22	
Cars +	113	2	59	22	196	123	307	57	2	489	73	26	127	8	234	22	75	5	164	266	1185
% Cars +	100	100	100	100	100	99.2	87.7	95	100	91.2	90.1	100	100	100	96.7	91.7	94.9	100	98.8	97.1	95
Trucks	0	0	0	0	0	1	43	3	0	47	8	0	0	0	8	2	4	0	2	8	63
% Trucks	0	0	0	0	0	0.8	12.3	5	0	8.8	9.9	0	0	0	3.3	8.3	5.1	0	1.2	2.9	5

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

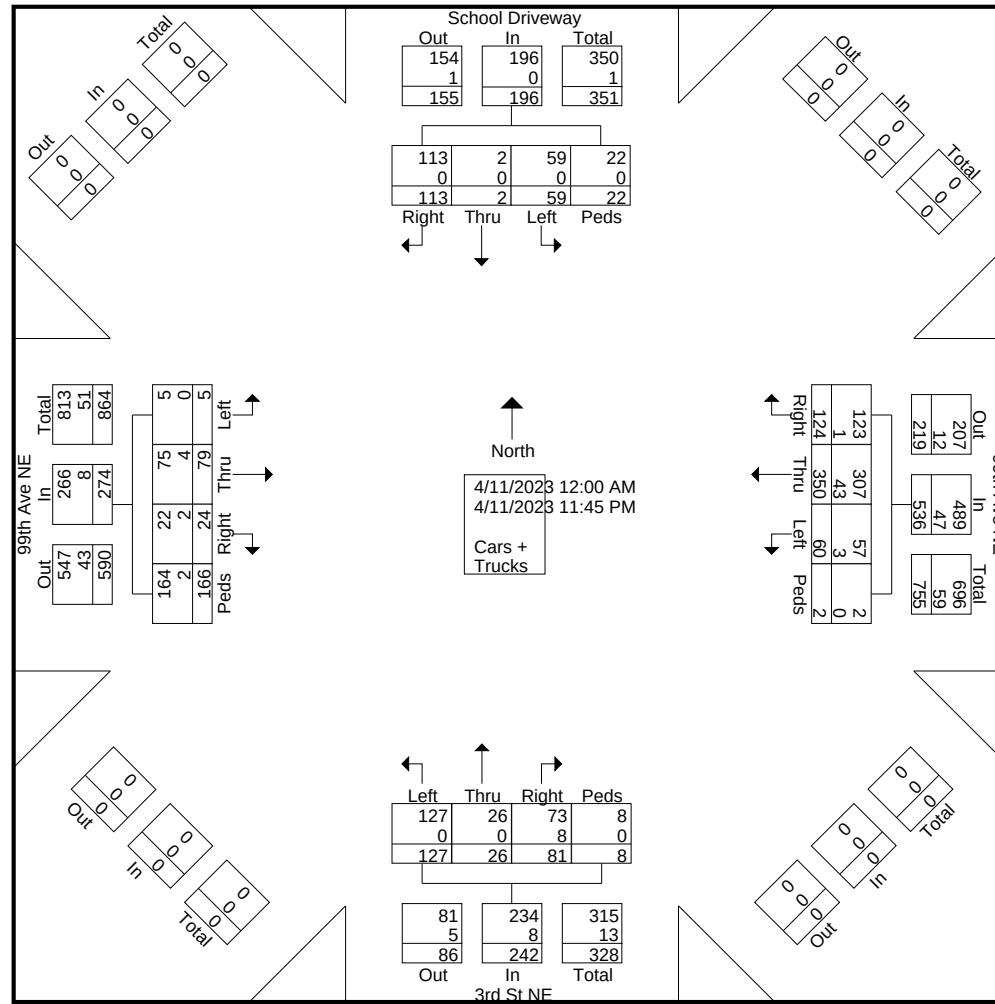
File Name : 99th Ave and 3rd St_04112023_0000-2400

Site Code : 7

Start Date : 4/11/2023

Page No : 5

99th Ave NE and 3rd St NE
Blaine, Minnesota



Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : 99th Ave and 3rd St_04112023_0000-2400

Site Code : 7

Start Date : 4/11/2023

Page No : 6

99th Ave NE and 3rd St NE
Blaine, Minnesota

	School Driveway Southbound					99th Ave NE Westbound					3rd St NE Northbound					99th Ave NE Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 AM to 12:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:30 AM																					
08:30 AM	3	0	0	0	3	4	10	0	0	14	3	0	1	0	4	1	2	0	0	3	24
08:45 AM	0	0	0	0	0	3	11	2	0	16	0	1	5	0	6	0	0	0	4	4	26
09:00 AM	17	0	2	5	24	18	26	3	1	48	4	5	1	0	10	3	1	0	31	35	117
09:15 AM	34	1	17	4	56	28	13	0	0	41	3	7	2	0	12	8	2	0	14	24	133
Total Volume	54	1	19	9	83	53	60	5	1	119	10	13	9	0	32	12	5	0	49	66	300
% App. Total	65.1	1.2	22.9	10.8		44.5	50.4	4.2	0.8		31.2	40.6	28.1	0		18.2	7.6	0	74.2		
PHF	.397	.250	.279	.450	.371	.473	.577	.417	.250	.620	.625	.464	.450	.000	.667	.375	.625	.000	.395	.471	.564

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

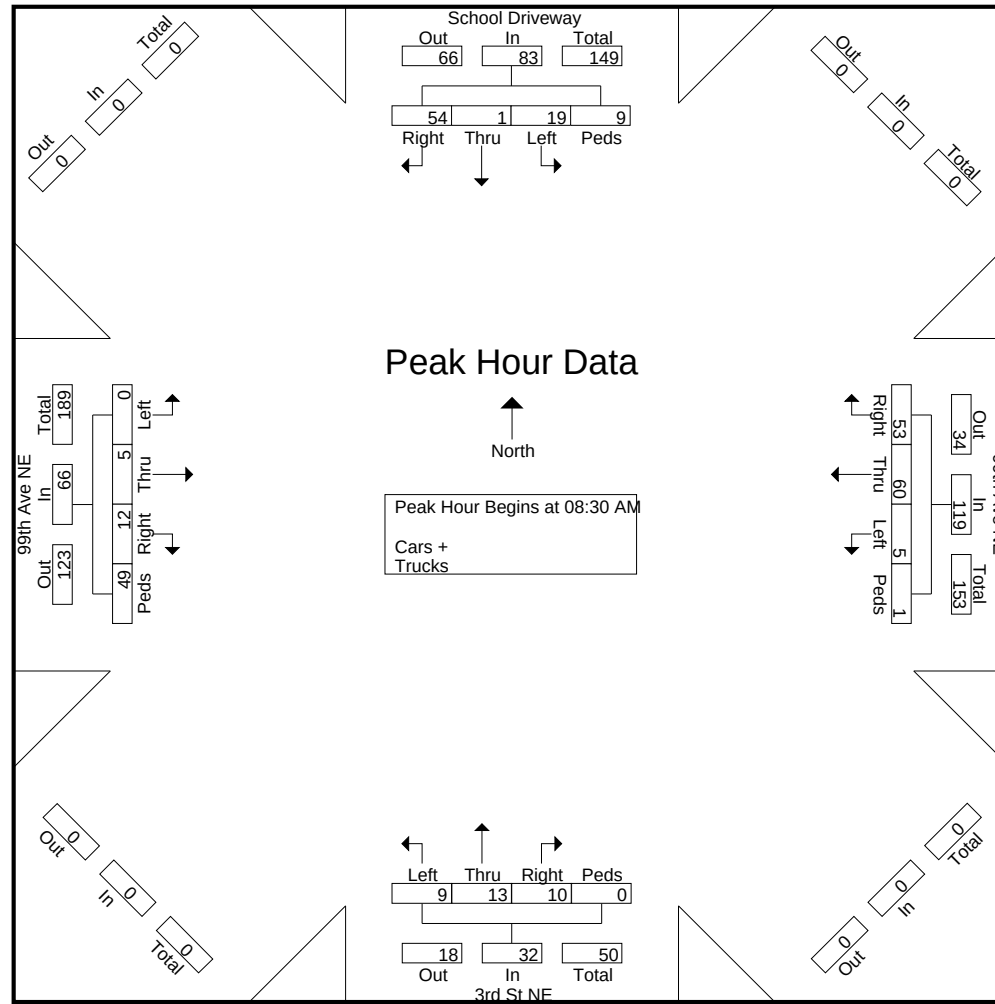
File Name : 99th Ave and 3rd St_04112023_0000-2400

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99th Ave NE and 3rd St NE
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Bolton & Menk, Inc.

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99th Ave NE and 3rd St NE
Blaine, Minnesota

	School Driveway Southbound					99th Ave NE Westbound					3rd St NE Northbound					99th Ave NE Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:15 PM to 11:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:15 PM																					
03:15 PM	1	0	0	0	1	6	8	2	0	16	2	2	5	1	10	0	1	2	0	3	30
03:30 PM	0	0	0	1	1	10	15	2	0	27	2	1	2	0	5	0	1	0	4	5	38
03:45 PM	14	1	4	0	19	13	15	3	0	31	4	0	7	7	18	0	0	0	98	98	166
04:00 PM	19	0	15	0	34	9	5	1	0	15	3	0	4	0	7	0	1	0	8	9	65
Total Volume	34	1	19	1	55	38	43	8	0	89	11	3	18	8	40	0	3	2	110	115	299
% App. Total	61.8	1.8	34.5	1.8		42.7	48.3	9	0		27.5	7.5	45	20		0	2.6	1.7	95.7		
PHF	.447	.250	.317	.250	.404	.731	.717	.667	.000	.718	.688	.375	.643	.286	.556	.000	.750	.250	.281	.293	.450

Bolton & Menk, Inc.

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Burnsville, MN 55337

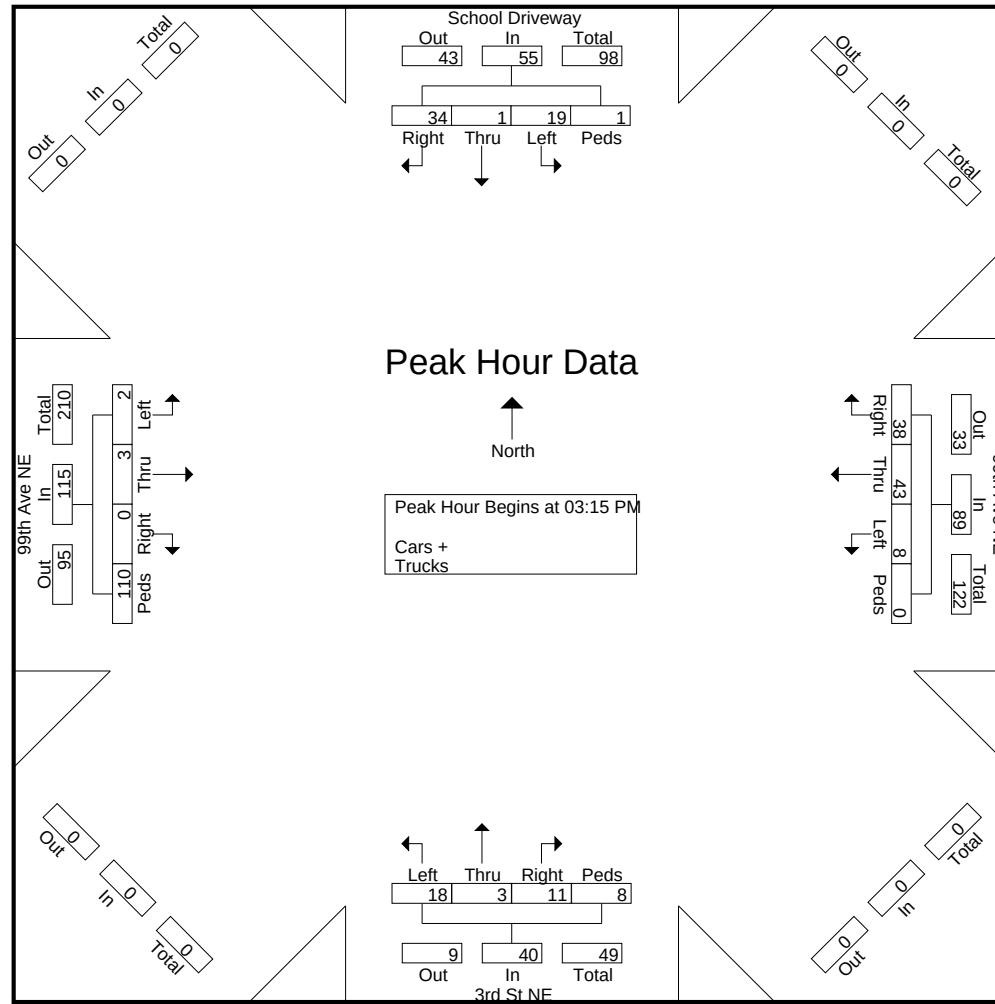
File Name : 99th Ave and 3rd St_04112023_0000-2400

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99th Ave NE and 3rd St NE
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99th Ave NE and 6th St NE
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	Southbound					99th Ave NE Westbound					6th St NE Northbound					99th Ave NE Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
12:00 AM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	0	0	0	0	0	4
12:15 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	0	0	0	0	2
12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	4	0	0	4	2	0	0	0	2	0	1	0	0	1	7
01:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 AM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
03:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
04:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1
04:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	6
04:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	1	2
Total	0	0	0	0	0	0	2	0	0	2	0	0	1	0	1	0	6	0	0	6	9
05:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	0	1	2
05:15 AM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	2	0	0	2	4
05:30 AM	0	0	0	0	0	0	0	0	0	0	3	0	2	0	5	0	1	0	0	1	6
05:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	5	0	0	5	6
Total	0	0	0	0	0	0	1	0	0	1	6	0	2	0	8	0	9	0	0	9	18
06:00 AM	0	0	0	0	0	0	2	2	0	4	3	0	0	0	3	0	4	0	0	4	11
06:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	7
06:30 AM	0	0	0	0	0	0	6	0	0	6	4	0	0	0	4	0	5	0	0	5	15

Bolton & Menk, Inc.

12224 Nicollet Avenue
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99th Ave NE and 6th St NE
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	Southbound					99th Ave NE Westbound					6th St NE Northbound					99th Ave NE Eastbound					Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:45 AM	0	0	0	0	0	0	6	1	0	7	1	0	1	1	3	0	8	0	0	8	18
Total	0	0	0	0	0	0	17	3	0	20	8	0	1	1	10	0	21	0	0	21	51
07:00 AM	0	0	0	0	0	0	9	0	0	9	2	0	0	0	2	0	7	0	0	7	18
07:15 AM	0	0	0	0	0	0	13	1	0	14	5	0	1	0	6	0	6	0	2	8	28
07:30 AM	0	0	0	0	0	0	10	1	0	11	2	0	1	0	3	0	2	0	0	2	16
07:45 AM	0	0	0	0	0	0	17	1	0	18	1	0	0	0	1	1	10	0	0	11	30
Total	0	0	0	0	0	0	49	3	0	52	10	0	2	0	12	1	25	0	2	28	92
08:00 AM	0	0	0	0	0	0	16	0	0	16	5	0	1	0	6	0	3	0	0	3	25
08:15 AM	0	0	0	0	0	0	15	1	0	16	1	0	0	0	1	0	4	0	0	4	21
08:30 AM	0	0	0	0	0	0	13	0	0	13	1	0	0	0	1	0	4	0	0	4	18
08:45 AM	0	0	0	0	0	0	17	2	0	19	1	0	1	0	2	0	0	0	0	0	21
Total	0	0	0	0	0	0	61	3	0	64	8	0	2	0	10	0	11	0	0	11	85
09:00 AM	0	0	0	0	0	0	55	0	0	55	4	0	0	0	4	0	5	0	0	5	64
09:15 AM	0	0	0	0	0	0	39	0	0	39	2	0	1	0	3	0	31	0	0	31	73
09:30 AM	0	0	0	0	0	0	6	1	0	7	2	0	1	0	3	1	5	0	0	6	16
09:45 AM	0	0	0	0	0	0	5	1	0	6	1	0	0	1	2	0	7	0	0	7	15
Total	0	0	0	0	0	0	105	2	0	107	9	0	2	1	12	1	48	0	0	49	168
10:00 AM	0	0	0	0	0	0	3	1	0	4	1	0	2	1	4	0	2	0	0	2	10
10:15 AM	0	0	0	0	0	0	6	2	0	8	3	0	0	1	4	0	1	0	1	2	14
10:30 AM	0	0	0	0	0	0	10	2	0	12	1	0	1	1	3	0	4	0	0	4	19
10:45 AM	0	0	0	0	0	0	4	1	0	5	4	0	0	0	4	0	3	0	0	3	12
Total	0	0	0	0	0	0	23	6	0	29	9	0	3	3	15	0	10	0	1	11	55
11:00 AM	0	0	0	0	0	0	4	1	0	5	6	0	0	0	6	0	1	0	1	2	13
11:15 AM	0	0	0	0	0	0	5	1	0	6	2	0	0	0	2	0	3	0	0	3	11
11:30 AM	0	0	0	0	0	0	5	1	0	6	3	0	0	0	3	0	1	0	0	1	10
11:45 AM	0	0	0	0	0	0	8	2	0	10	3	0	0	0	3	0	0	0	0	0	13
Total	0	0	0	0	0	0	22	5	0	27	14	0	0	0	14	0	5	0	1	6	47
12:00 PM	0	0	0	0	0	0	2	1	0	3	1	0	2	0	3	0	2	0	0	2	8
12:15 PM	0	0	0	0	0	0	5	0	0	5	1	0	0	0	1	0	2	0	0	2	8
12:30 PM	0	0	0	0	0	0	8	0	0	8	2	0	2	0	4	0	2	0	0	2	14
12:45 PM	0	0	0	0	0	0	10	2	0	12	5	0	1	0	6	0	4	0	0	4	22
Total	0	0	0	0	0	0	25	3	0	28	9	0	5	0	14	0	10	0	0	10	52

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : 99th Ave and 6th St_04112023_0000-2400

Site Code : 7

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99th Ave NE and 6th St NE
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	Southbound					99th Ave NE Westbound					6th St NE Northbound					99th Ave NE Eastbound					Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
01:00 PM	0	0	0	0	0	0	6	1	0	7	5	0	1	0	6	0	1	0	0	1	14
01:15 PM	0	0	0	0	0	0	5	0	0	5	5	0	0	0	5	1	5	0	0	6	16
01:30 PM	0	0	0	0	0	0	6	1	0	7	4	0	0	0	4	0	3	0	0	3	14
01:45 PM	0	0	0	0	0	0	2	3	0	5	3	0	0	1	4	0	3	0	0	3	12
Total	0	0	0	0	0	0	19	5	0	24	17	0	1	1	19	1	12	0	0	13	56
02:00 PM	0	0	0	0	0	0	6	2	0	8	3	0	0	0	3	0	3	0	0	3	14
02:15 PM	0	0	0	0	0	0	3	1	0	4	3	0	0	0	3	0	5	0	0	5	12
02:30 PM	0	0	0	0	0	0	5	0	0	5	3	0	1	0	4	0	2	0	0	2	11
02:45 PM	0	0	0	0	0	0	6	2	0	8	5	0	0	0	5	0	3	0	0	3	16
Total	0	0	0	0	0	0	20	5	0	25	14	0	1	0	15	0	13	0	0	13	53
03:00 PM	0	0	0	0	0	0	8	2	0	10	3	0	2	0	5	0	0	0	0	0	15
03:15 PM	0	0	0	0	0	0	16	2	0	18	2	0	0	0	2	0	5	0	0	5	25
03:30 PM	0	0	0	0	0	0	41	3	0	44	6	0	0	0	6	0	3	0	0	3	53
03:45 PM	0	0	0	0	0	0	27	4	0	31	4	0	3	1	8	0	13	0	6	19	58
Total	0	0	0	0	0	0	92	11	0	103	15	0	5	1	21	0	21	0	6	27	151
04:00 PM	0	0	0	0	0	0	16	3	0	19	7	0	2	0	9	1	22	0	4	27	55
04:15 PM	0	0	0	0	0	0	5	2	0	7	2	0	0	0	2	0	17	0	0	17	26
04:30 PM	0	0	0	0	0	0	7	3	0	10	5	0	0	0	5	0	10	0	2	12	27
04:45 PM	0	0	0	0	0	0	13	4	0	17	4	0	1	0	5	0	6	0	0	6	28
Total	0	0	0	0	0	0	41	12	0	53	18	0	3	0	21	1	55	0	6	62	136
05:00 PM	0	0	0	0	0	0	11	1	0	12	7	0	1	0	8	0	16	0	0	16	36
05:15 PM	0	0	0	0	0	0	5	2	0	7	3	0	1	0	4	0	9	0	1	10	21
05:30 PM	0	0	0	0	0	0	7	1	0	8	4	0	1	0	5	0	7	0	3	10	23
05:45 PM	0	0	0	0	0	0	11	1	0	12	1	0	1	1	3	0	9	0	1	10	25
Total	0	0	0	0	0	0	34	5	0	39	15	0	4	1	20	0	41	0	5	46	105
06:00 PM	0	0	0	0	0	0	9	1	0	10	1	0	0	0	1	0	6	0	0	6	17
06:15 PM	0	0	0	0	0	0	2	2	0	4	2	0	0	0	2	0	3	0	0	3	9
06:30 PM	0	0	0	0	0	0	5	0	0	5	1	0	2	0	3	0	4	0	0	4	12
06:45 PM	0	0	0	0	0	0	3	2	0	5	1	0	0	0	1	1	2	0	0	3	9
Total	0	0	0	0	0	0	19	5	0	24	5	0	2	0	7	1	15	0	0	16	47
07:00 PM	0	0	0	0	0	0	8	0	0	8	5	0	0	0	5	0	1	0	0	1	14
07:15 PM	0	0	0	0	0	0	5	1	0	6	1	0	0	0	1	0	6	0	0	6	13
07:30 PM	0	0	0	0	0	0	5	1	0	6	2	0	0	0	2	0	2	0	0	2	10

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

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99th Ave NE and 6th St NE
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	Southbound					99th Ave NE Westbound					6th St NE Northbound					99th Ave NE Eastbound					Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:45 PM	0	0	0	0	0	0	2	3	0	5	0	0	1	0	1	0	6	0	0	6	12
Total	0	0	0	0	0	0	20	5	0	25	8	0	1	0	9	0	15	0	0	15	49
08:00 PM	0	0	0	0	0	0	3	0	0	3	2	0	1	0	3	0	1	0	2	3	9
08:15 PM	0	0	0	0	0	0	4	1	0	5	1	0	1	0	2	0	2	0	0	2	9
08:30 PM	0	0	0	0	0	0	4	2	0	6	2	0	0	0	2	0	3	0	0	3	11
08:45 PM	0	0	0	0	0	0	7	1	0	8	0	0	1	0	1	0	2	0	0	2	11
Total	0	0	0	0	0	0	18	4	0	22	5	0	3	0	8	0	8	0	2	10	40
09:00 PM	0	0	0	0	0	0	2	1	0	3	2	0	1	0	3	0	1	0	0	1	7
09:15 PM	0	0	0	0	0	0	4	2	0	6	2	0	1	0	3	0	3	0	0	3	12
09:30 PM	0	0	0	0	0	0	1	0	0	1	2	0	0	0	2	0	2	0	0	2	5
09:45 PM	0	0	0	0	0	0	2	0	0	2	2	0	0	0	2	0	3	0	0	3	7
Total	0	0	0	0	0	0	9	3	0	12	8	0	2	0	10	0	9	0	0	9	31
10:00 PM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	0	0	0	0	0	4
10:15 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2	0	0	2	3
10:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3
10:45 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	0	1	0	1	0	0	1	3
Total	0	0	0	0	0	0	7	1	0	8	2	0	0	0	2	0	3	0	0	3	13
11:00 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	5
11:15 PM	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	1
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	3	0	0	3	7
Grand Total	0	0	0	0	0	0	594	82	0	676	182	0	40	8	230	5	341	0	23	369	1275
Apprch %	0	0	0	0	0	0	87.9	12.1	0	79.1	0	17.4	3.5	0	1.4	92.4	0	6.2	0	0	0
Total %	0	0	0	0	0	0	46.6	6.4	0	53	14.3	0	3.1	0.6	18	0.4	26.7	0	1.8	28.9	0
Cars +	0	0	0	0	0	0	548	82	0	630	180	0	36	8	224	3	326	0	23	352	1206
% Cars +	0	0	0	0	0	0	92.3	100	0	93.2	98.9	0	90	100	97.4	60	95.6	0	100	95.4	94.6
Trucks	0	0	0	0	0	0	46	0	0	46	2	0	4	0	6	2	15	0	0	17	69
% Trucks	0	0	0	0	0	0	7.7	0	0	6.8	1.1	0	10	0	2.6	40	4.4	0	0	4.6	5.4

12224 Nicollet Avenue
Burnsville, MN 55337

12224 Nicollet Avenue
Burnsville, MN 55337

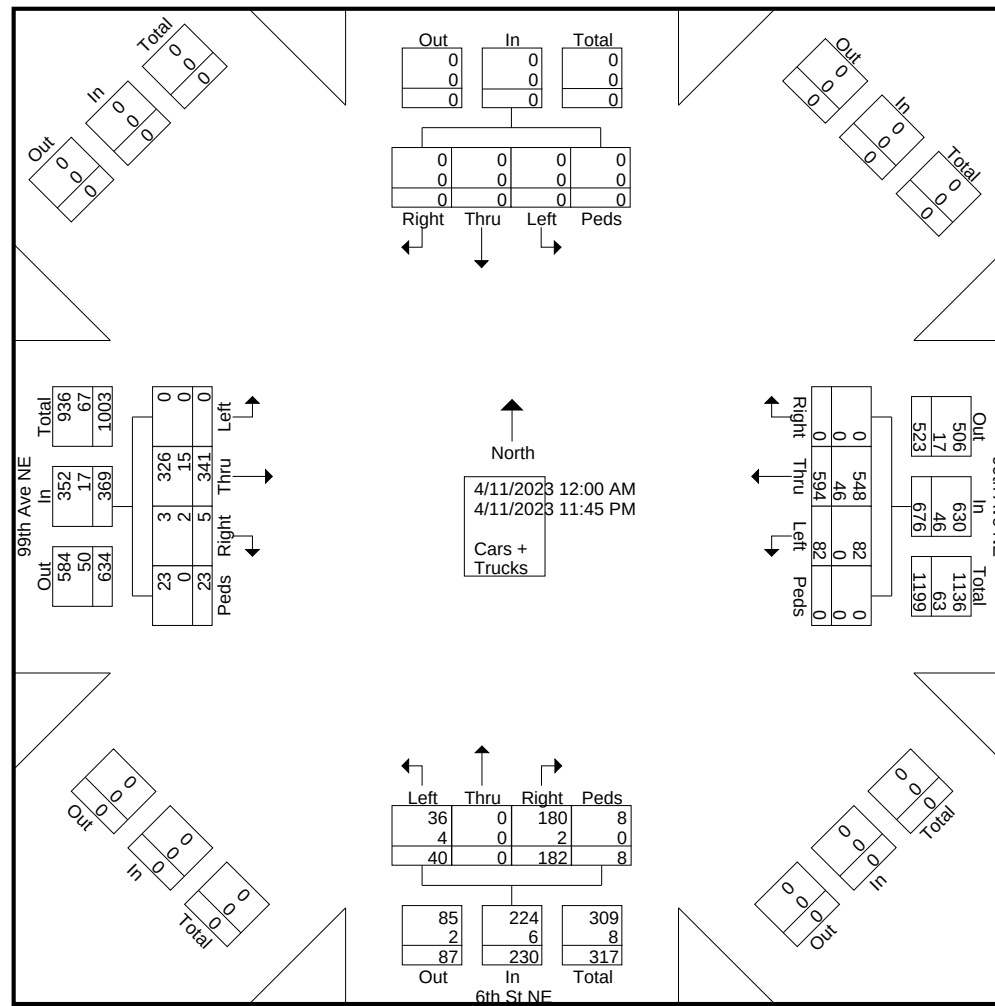
File Name : 99th Ave and 6th St_04112023_0000-2400

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99th Ave NE and 6th St NE
Blaine, Minnesota



Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : 99th Ave and 6th St_04112023_0000-2400

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99th Ave NE and 6th St NE
Blaine, Minnesota

	Southbound					99th Ave NE Westbound					6th St NE Northbound					99th Ave NE Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 AM to 12:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:30 AM																					
08:30 AM	0	0	0	0	0	0	13	0	0	13	1	0	0	0	1	0	4	0	0	4	18
08:45 AM	0	0	0	0	0	0	17	2	0	19	1	0	1	0	2	0	0	0	0	0	21
09:00 AM	0	0	0	0	0	0	55	0	0	55	4	0	0	0	4	0	5	0	0	5	64
09:15 AM	0	0	0	0	0	0	39	0	0	39	2	0	1	0	3	0	31	0	0	31	73
Total Volume	0	0	0	0	0	0	124	2	0	126	8	0	2	0	10	0	40	0	0	40	176
% App. Total	0	0	0	0	0	0	98.4	1.6	0		80	0	20	0		0	100	0	0		
PHF	.000	.000	.000	.000	.000	.000	.564	.250	.000	.573	.500	.000	.500	.000	.625	.000	.323	.000	.000	.323	.603

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

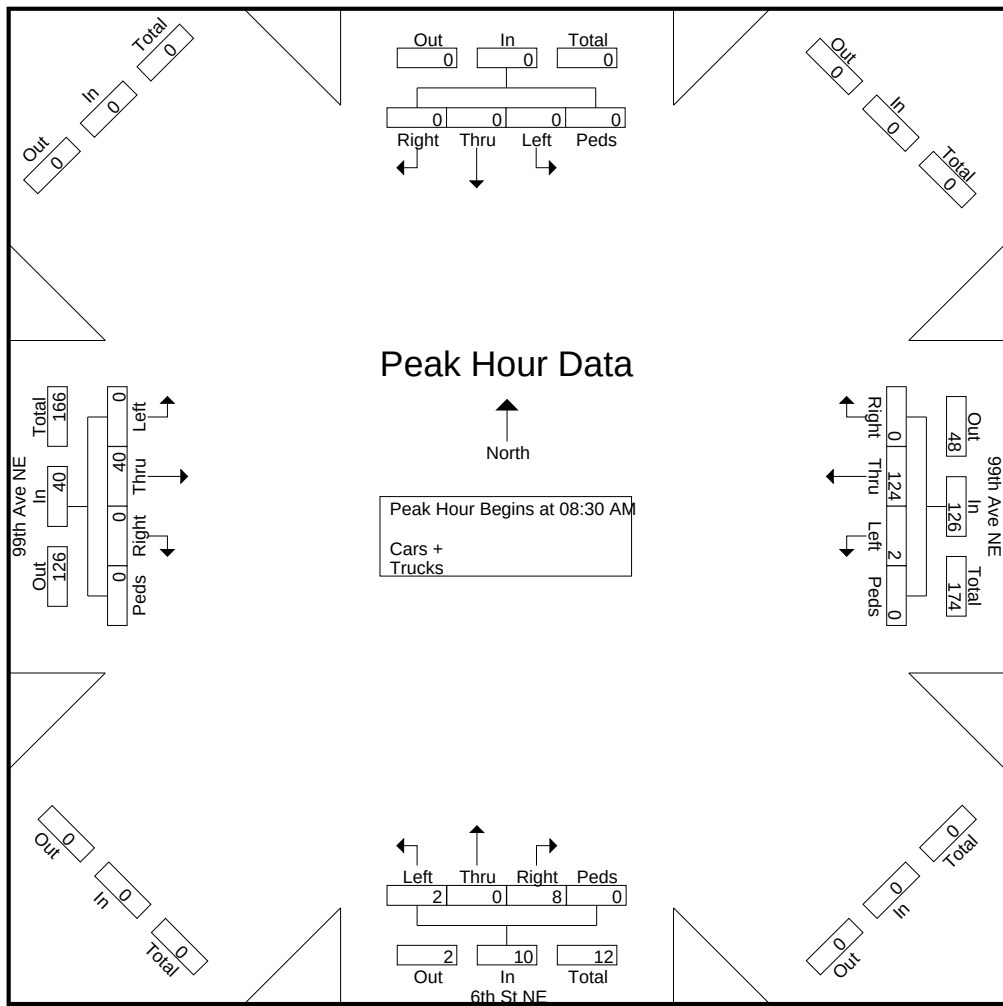
File Name : 99th Ave and 6th St_04112023_0000-2400

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99th Ave NE and 6th St NE
Blaine, Minnesota



Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : 99th Ave and 6th St_04112023_0000-2400

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99th Ave NE and 6th St NE
Blaine, Minnesota

	Southbound					99th Ave NE Westbound					6th St NE Northbound					99th Ave NE Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:15 PM to 11:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:30 PM																					
03:30 PM	0	0	0	0	0	0	41	3	0	44	6	0	0	0	6	0	3	0	0	3	53
03:45 PM	0	0	0	0	0	0	27	4	0	31	4	0	3	1	8	0	13	0	6	19	58
04:00 PM	0	0	0	0	0	0	16	3	0	19	7	0	2	0	9	1	22	0	4	27	55
04:15 PM	0	0	0	0	0	0	5	2	0	7	2	0	0	0	2	0	17	0	0	17	26
Total Volume	0	0	0	0	0	0	89	12	0	101	19	0	5	1	25	1	55	0	10	66	192
% App. Total	0	0	0	0	0	0	88.1	11.9	0		76	0	20	4		1.5	83.3	0	15.2		
PHF	.000	.000	.000	.000	.000	.000	.543	.750	.000	.574	.679	.000	.417	.250	.694	.250	.625	.000	.417	.611	.828

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

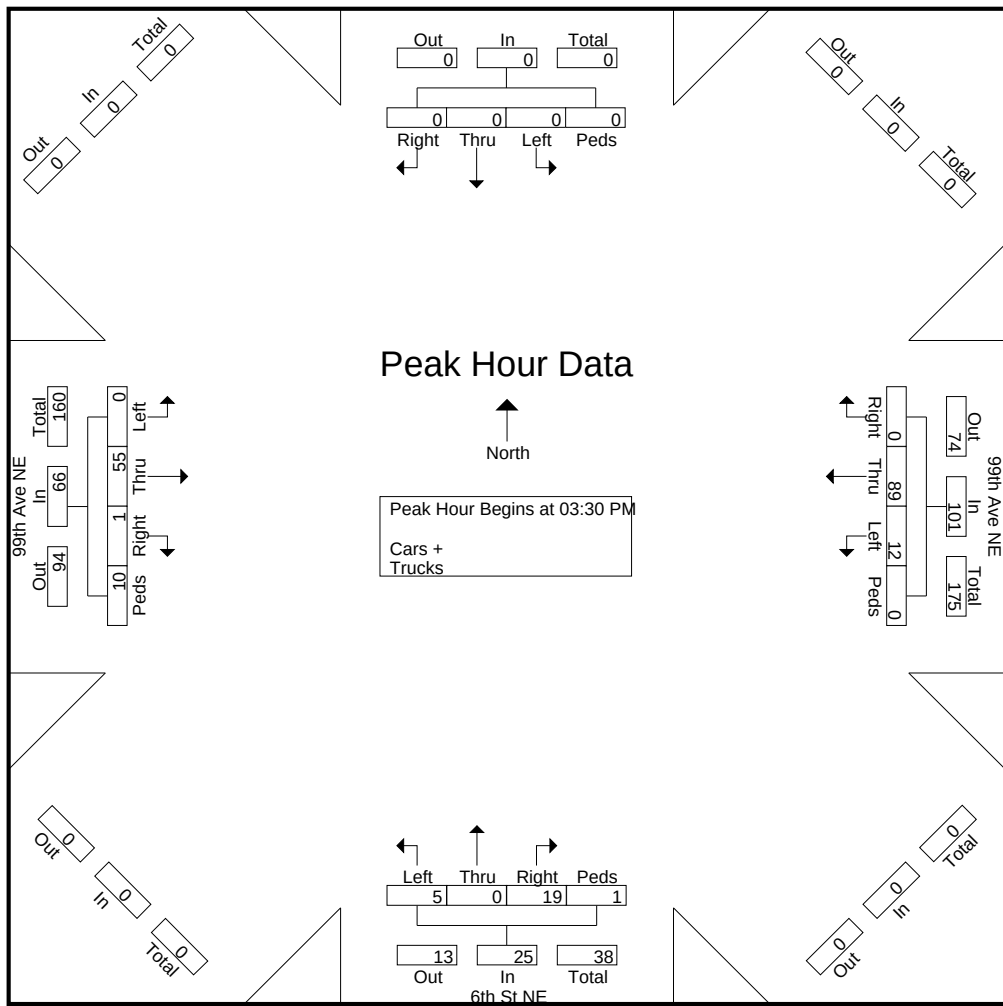
File Name : 99th Ave and 6th St_04112023_0000-2400

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99th Ave NE and 6th St NE
Blaine, Minnesota



Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : 99th Ave and 101st Ave_04112023_0000-2400

Site Code : 7

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99th Ave NE and 101st Ave NE
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	101st Ave NE Southbound					Westbound					99th Ave NE Northbound					99th Ave NE Eastbound					Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
12:00 AM	2	6	0	0	8	0	0	0	0	0	0	2	1	0	3	1	0	0	0	1	12
12:15 AM	0	7	0	0	7	0	0	0	0	0	0	2	1	0	3	1	0	0	0	1	11
12:30 AM	0	2	0	0	2	0	0	0	0	0	0	4	0	0	4	1	0	0	0	1	7
12:45 AM	0	6	0	0	6	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	11
Total	2	21	0	0	23	0	0	0	0	0	0	13	2	0	15	3	0	0	0	3	41
01:00 AM	0	2	0	0	2	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	5
01:15 AM	1	10	0	0	11	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	15
01:30 AM	0	6	0	0	6	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	11
01:45 AM	0	8	0	0	8	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	12
Total	1	26	0	0	27	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	43
02:00 AM	0	6	0	0	6	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	8
02:15 AM	0	5	0	0	5	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	6
02:30 AM	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
02:45 AM	0	5	0	0	5	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	7
Total	0	19	0	0	19	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	24
03:00 AM	0	1	0	0	1	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	6
03:15 AM	0	1	0	0	1	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	4
03:30 AM	0	4	0	0	4	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	7
03:45 AM	0	1	0	0	1	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	7
Total	0	7	0	0	7	0	0	0	0	0	0	15	2	0	17	0	0	0	0	0	24
04:00 AM	0	3	0	0	3	0	0	0	0	0	0	13	0	0	13	0	0	1	0	1	17
04:15 AM	0	5	0	0	5	0	0	0	0	0	0	12	0	0	12	0	0	2	0	2	19
04:30 AM	2	2	0	0	4	0	0	0	0	0	0	13	0	0	13	1	0	1	0	2	19
04:45 AM	0	4	0	0	4	0	0	0	0	0	0	18	0	0	18	0	0	2	0	2	24
Total	2	14	0	0	16	0	0	0	0	0	0	56	0	0	56	1	0	6	0	7	79
05:00 AM	0	10	0	0	10	0	0	0	0	0	0	17	0	0	17	1	0	3	0	4	31
05:15 AM	1	4	0	0	5	0	0	0	0	0	0	32	0	0	32	1	0	3	0	4	41
05:30 AM	0	10	0	0	10	0	0	0	0	0	0	50	1	0	51	1	0	2	0	3	64
05:45 AM	1	12	0	0	13	0	0	0	0	0	0	35	0	0	35	3	0	4	0	7	55
Total	2	36	0	0	38	0	0	0	0	0	0	134	1	0	135	6	0	12	0	18	191
06:00 AM	3	11	0	0	14	0	0	0	0	0	0	45	3	0	48	3	0	2	0	5	67
06:15 AM	1	24	0	0	25	0	0	0	0	0	0	45	2	0	47	0	0	4	0	4	76
06:30 AM	8	29	0	0	37	0	0	0	0	0	0	78	0	0	78	4	0	7	0	11	126

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

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Site Code : 7

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99th Ave NE and 101st Ave NE
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	101st Ave NE Southbound					Westbound					99th Ave NE Northbound					99th Ave NE Eastbound					Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:45 AM	4	27	0	0	31	0	0	0	0	0	0	78	5	0	83	6	0	2	1	9	123
Total	16	91	0	0	107	0	0	0	0	0	0	246	10	0	256	13	0	15	1	29	392
07:00 AM	4	24	0	0	28	0	0	0	0	0	0	86	4	0	90	3	0	5	0	8	126
07:15 AM	10	27	0	0	37	0	0	0	0	0	0	82	5	0	87	2	0	9	0	11	135
07:30 AM	8	45	0	0	53	0	0	0	0	0	0	87	2	0	89	2	0	6	0	8	150
07:45 AM	16	50	0	0	66	0	0	0	0	0	0	74	4	0	78	3	0	7	0	10	154
Total	38	146	0	0	184	0	0	0	0	0	0	329	15	0	344	10	0	27	0	37	565
08:00 AM	12	31	0	0	43	0	0	0	0	0	0	58	5	0	63	3	0	5	0	8	114
08:15 AM	10	34	0	0	44	0	0	0	0	0	0	59	5	0	64	1	0	4	0	5	113
08:30 AM	10	36	0	0	46	0	0	0	0	0	0	49	3	0	52	3	0	3	0	6	104
08:45 AM	19	44	0	0	63	0	0	0	0	0	0	68	3	0	71	1	0	1	0	2	136
Total	51	145	0	0	196	0	0	0	0	0	0	234	16	0	250	8	0	13	0	21	467
09:00 AM	38	37	0	0	75	0	0	0	0	0	0	49	18	0	67	4	0	5	0	9	151
09:15 AM	25	40	0	0	65	0	0	0	0	0	0	44	11	0	55	19	0	14	0	33	153
09:30 AM	4	28	0	0	32	0	0	0	0	0	0	65	3	0	68	4	0	4	1	9	109
09:45 AM	4	32	0	0	36	0	0	0	0	0	0	57	2	0	59	5	0	4	0	9	104
Total	71	137	0	0	208	0	0	0	0	0	0	215	34	0	249	32	0	27	1	60	517
10:00 AM	2	33	0	0	35	0	0	0	0	0	0	49	2	0	51	2	0	1	0	3	89
10:15 AM	4	42	0	0	46	0	0	0	0	0	0	46	4	0	50	2	0	3	0	5	101
10:30 AM	9	39	0	0	48	0	0	0	0	0	0	58	1	0	59	1	0	3	0	4	111
10:45 AM	5	37	0	0	42	0	0	0	0	0	0	46	0	0	46	6	0	3	0	9	97
Total	20	151	0	0	171	0	0	0	0	0	0	199	7	0	206	11	0	10	0	21	398
11:00 AM	1	42	0	0	43	0	0	0	0	0	0	42	3	0	45	4	0	3	1	8	96
11:15 AM	5	45	0	0	50	0	0	0	0	0	0	46	2	0	48	2	0	4	0	6	104
11:30 AM	2	42	0	0	44	0	0	0	0	0	0	51	4	0	55	3	0	2	0	5	104
11:45 AM	5	54	0	0	59	0	0	0	0	0	0	55	5	0	60	1	0	2	0	3	122
Total	13	183	0	0	196	0	0	0	0	0	0	194	14	0	208	10	0	11	1	22	426
12:00 PM	3	50	0	0	53	0	0	0	0	0	0	59	1	0	60	3	0	2	0	5	118
12:15 PM	3	55	0	0	58	0	0	0	0	0	0	49	4	0	53	2	0	2	0	4	115
12:30 PM	2	49	0	0	51	0	0	0	0	0	0	48	6	0	54	2	0	2	0	4	109
12:45 PM	11	62	0	0	73	0	0	0	0	0	0	56	2	0	58	6	0	3	0	9	140
Total	19	216	0	0	235	0	0	0	0	0	0	212	13	0	225	13	0	9	0	22	482

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

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99th Ave NE and 101st Ave NE
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	101st Ave NE Southbound					Westbound					99th Ave NE Northbound					99th Ave NE Eastbound					Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
01:00 PM	7	51	0	0	58	0	0	0	0	0	0	53	2	0	55	6	0	0	0	6	119
01:15 PM	3	35	0	0	38	0	0	0	0	0	0	59	3	0	62	5	0	5	0	10	110
01:30 PM	5	44	0	0	49	0	0	0	0	0	0	52	3	0	55	4	0	4	1	9	113
01:45 PM	2	56	0	0	58	0	0	0	0	0	0	49	3	0	52	5	0	1	0	6	116
Total	17	186	0	0	203	0	0	0	0	0	0	213	11	0	224	20	0	10	1	31	458
02:00 PM	3	59	0	0	62	0	0	0	0	0	0	49	4	0	53	2	0	5	0	7	122
02:15 PM	4	75	0	0	79	0	0	0	0	0	0	50	2	0	52	5	0	2	0	7	138
02:30 PM	3	65	0	0	68	0	0	0	0	0	0	56	3	0	59	2	0	4	1	7	134
02:45 PM	8	84	0	0	92	0	0	0	0	0	0	60	1	0	61	4	0	4	0	8	161
Total	18	283	0	0	301	0	0	0	0	0	0	215	10	0	225	13	0	15	1	29	555
03:00 PM	7	95	0	0	102	0	0	0	0	0	0	62	4	0	66	1	0	2	0	3	171
03:15 PM	11	100	0	0	111	0	0	0	0	0	0	72	8	0	80	5	0	0	0	5	196
03:30 PM	32	127	0	0	159	0	0	0	0	0	0	63	12	0	75	3	0	5	1	9	243
03:45 PM	22	83	0	0	105	0	0	0	0	0	0	65	9	0	74	9	0	11	0	20	199
Total	72	405	0	0	477	0	0	0	0	0	0	262	33	0	295	18	0	18	1	37	809
04:00 PM	15	121	0	0	136	0	0	0	0	0	0	77	6	0	83	10	0	17	0	27	246
04:15 PM	7	98	0	0	105	0	0	0	0	0	0	65	2	0	67	4	0	14	1	19	191
04:30 PM	8	96	0	0	104	0	0	0	0	0	0	66	3	0	69	9	0	10	0	19	192
04:45 PM	15	109	0	0	124	0	0	0	0	0	0	78	3	0	81	5	0	5	3	13	218
Total	45	424	0	0	469	0	0	0	0	0	0	286	14	0	300	28	0	46	4	78	847
05:00 PM	6	112	0	0	118	0	0	0	0	0	0	76	8	0	84	20	0	6	1	27	229
05:15 PM	7	118	0	0	125	0	0	0	0	0	0	63	1	0	64	6	0	7	0	13	202
05:30 PM	5	88	0	0	93	0	0	0	0	0	0	64	3	0	67	5	0	6	4	15	175
05:45 PM	9	87	0	0	96	0	0	0	0	0	0	59	4	0	63	7	0	5	3	15	174
Total	27	405	0	0	432	0	0	0	0	0	0	262	16	0	278	38	0	24	8	70	780
06:00 PM	6	81	0	0	87	0	0	0	0	0	0	86	4	0	90	2	0	6	0	8	185
06:15 PM	8	62	0	0	70	0	0	0	0	0	0	53	2	0	55	2	0	4	0	6	131
06:30 PM	3	64	0	0	67	0	0	0	0	0	0	67	4	0	71	2	0	4	0	6	144
06:45 PM	2	59	0	0	61	0	0	0	0	0	0	46	3	0	49	3	0	1	0	4	114
Total	19	266	0	0	285	0	0	0	0	0	0	252	13	0	265	9	0	15	0	24	574
07:00 PM	7	66	0	0	73	0	0	0	0	0	0	50	2	0	52	3	0	3	0	6	131
07:15 PM	3	54	0	0	57	0	0	0	0	0	0	46	5	0	51	5	0	2	0	7	115
07:30 PM	6	66	0	0	72	0	0	0	0	0	0	45	1	0	46	2	0	2	0	4	122

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

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99th Ave NE and 101st Ave NE
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	101st Ave NE Southbound					Westbound					99th Ave NE Northbound					99th Ave NE Eastbound					Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:45 PM	4	43	0	0	47	0	0	0	0	0	0	44	0	0	44	4	0	2	0	6	97
Total	20	229	0	0	249	0	0	0	0	0	0	185	8	0	193	14	0	9	0	23	465
08:00 PM	3	50	0	0	53	0	0	0	0	0	0	32	1	0	33	2	0	2	0	4	90
08:15 PM	5	56	0	0	61	0	0	0	0	0	0	33	1	0	34	1	0	0	0	1	96
08:30 PM	6	39	0	0	45	0	0	0	0	0	0	37	1	0	38	2	0	2	0	4	87
08:45 PM	2	47	0	0	49	0	0	0	0	0	0	20	5	0	25	0	0	2	0	2	76
Total	16	192	0	0	208	0	0	0	0	0	0	122	8	0	130	5	0	6	0	11	349
09:00 PM	4	40	0	0	44	0	0	0	0	0	0	43	1	0	44	2	0	2	0	4	92
09:15 PM	5	36	0	0	41	0	0	0	0	0	0	24	3	0	27	3	0	1	0	4	72
09:30 PM	0	27	0	0	27	0	0	0	0	0	0	15	1	0	16	2	0	2	0	4	47
09:45 PM	1	25	0	0	26	0	0	0	0	0	0	9	1	0	10	0	0	2	0	2	38
Total	10	128	0	0	138	0	0	0	0	0	0	91	6	0	97	7	0	7	0	14	249
10:00 PM	3	32	0	0	35	0	0	0	0	0	0	17	0	0	17	0	0	0	0	0	52
10:15 PM	1	28	0	0	29	0	0	0	0	0	0	15	0	0	15	1	0	1	0	2	46
10:30 PM	0	16	0	0	16	0	0	0	0	0	0	8	3	0	11	0	0	0	0	0	27
10:45 PM	1	17	0	0	18	0	0	0	0	0	0	8	0	0	8	1	0	1	0	2	28
Total	5	93	0	0	98	0	0	0	0	0	0	48	3	0	51	2	0	2	0	4	153
11:00 PM	1	20	0	0	21	0	0	0	0	0	0	8	1	0	9	2	0	1	0	3	33
11:15 PM	1	14	0	0	15	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	21
11:30 PM	0	22	0	0	22	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	27
11:45 PM	1	12	0	0	13	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	16
Total	3	68	0	0	71	0	0	0	0	0	0	22	1	0	23	2	0	1	0	3	97
Grand Total	487	3871	0	0	4358	0	0	0	0	0	0	3826	237	0	4063	263	0	283	18	564	8985
Apprch %	11.2	88.8	0	0		0	0	0	0		0	94.2	5.8	0		46.6	0	50.2	3.2		
Total %	5.4	43.1	0	0	48.5	0	0	0	0	0	0	42.6	2.6	0	45.2	2.9	0	3.1	0.2	6.3	
Cars +	455	3802	0	0	4257	0	0	0	0	0	0	3772	224	0	3996	250	0	279	7	536	8789
% Cars +	93.4	98.2	0	0	97.7	0	0	0	0	0	0	98.6	94.5	0	98.4	95.1	0	98.6	38.9	95	97.8
Trucks	32	69	0	0	101	0	0	0	0	0	0	54	13	0	67	13	0	4	11	28	196
% Trucks	6.6	1.8	0	0	2.3	0	0	0	0	0	0	1.4	5.5	0	1.6	4.9	0	1.4	61.1	5	2.2

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

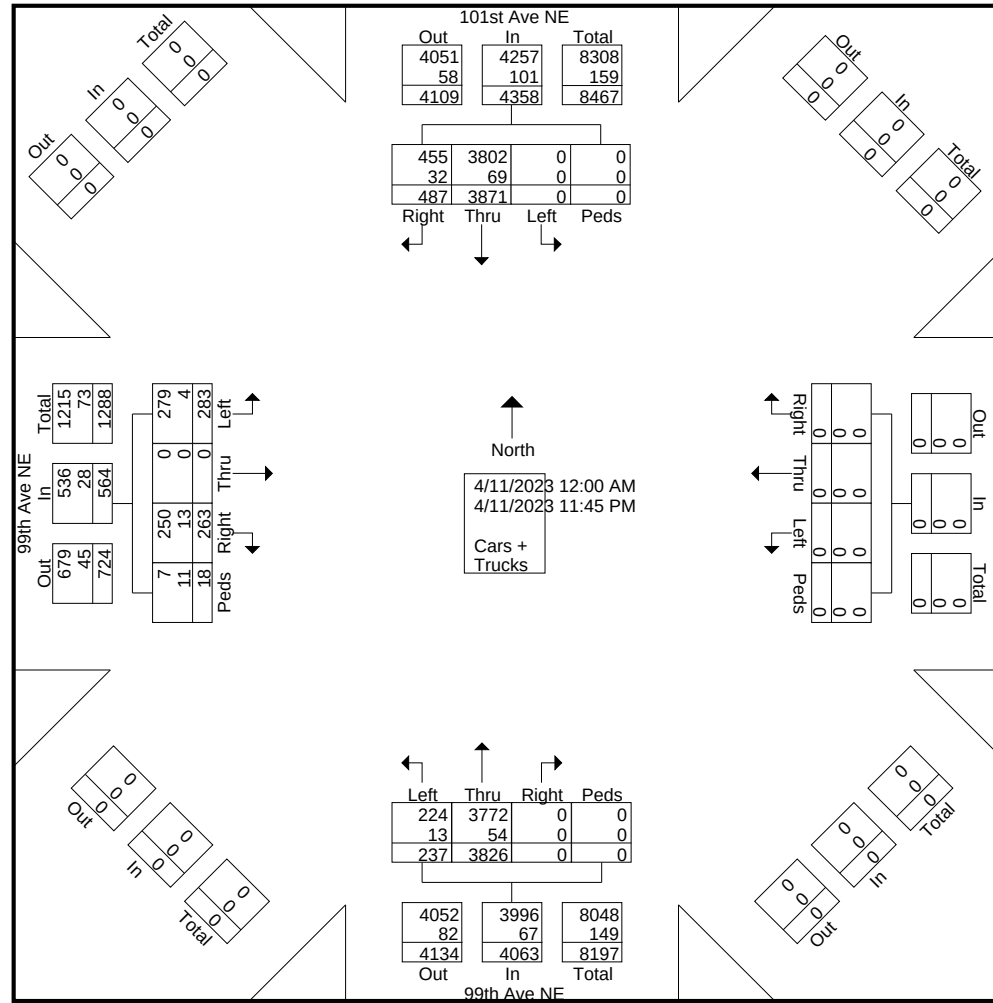
File Name : 99th Ave and 101st Ave_04112023_0000-2400

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99th Ave NE and 101st Ave NE
Blaine, Minnesota



Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : 99th Ave and 101st Ave_04112023_0000-2400

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99th Ave NE and 101st Ave NE
Blaine, Minnesota

	101st Ave NE Southbound					Westbound					99th Ave NE Northbound					99th Ave NE Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 AM to 12:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	4	24	0	0	28	0	0	0	0	0	0	86	4	0	90	3	0	5	0	8	126
07:15 AM	10	27	0	0	37	0	0	0	0	0	0	82	5	0	87	2	0	9	0	11	135
07:30 AM	8	45	0	0	53	0	0	0	0	0	0	87	2	0	89	2	0	6	0	8	150
07:45 AM	16	50	0	0	66	0	0	0	0	0	0	74	4	0	78	3	0	7	0	10	154
Total Volume	38	146	0	0	184	0	0	0	0	0	0	329	15	0	344	10	0	27	0	37	565
% App. Total	20.7	79.3	0	0		0	0	0	0		0	95.6	4.4	0		27	0	73	0		
PHF	.594	.730	.000	.000	.697	.000	.000	.000	.000	.000	.000	.945	.750	.000	.956	.833	.000	.750	.000	.841	.917

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

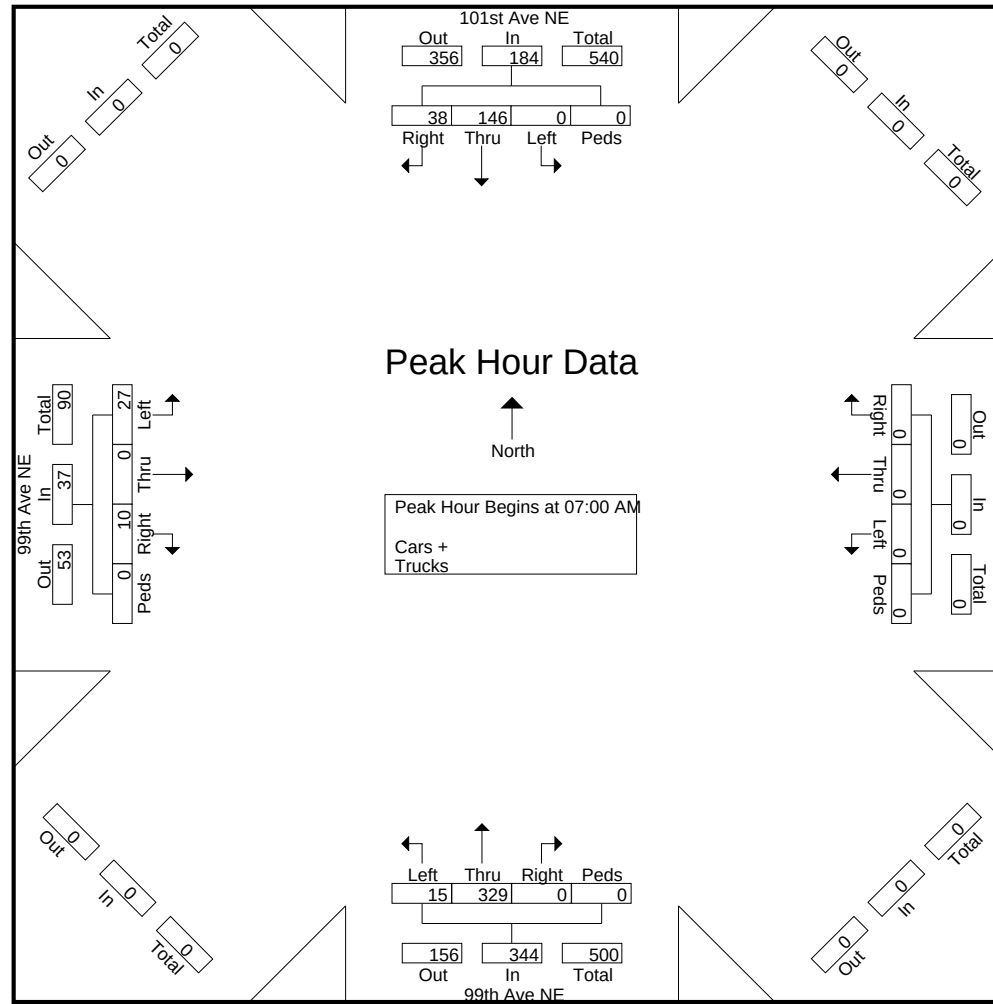
File Name : 99th Ave and 101st Ave_04112023_0000-2400

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99th Ave NE and 101st Ave NE
Blaine, Minnesota



Bolton & Menk, Inc.

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Burnsville, MN 55337

File Name : 99th Ave and 101st Ave_04112023_0000-2400

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99th Ave NE and 101st Ave NE
Blaine, Minnesota

	101st Ave NE Southbound					Westbound					99th Ave NE Northbound					99th Ave NE Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:15 PM to 11:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:15 PM																					
03:15 PM	11	100	0	0	111	0	0	0	0	0	0	72	8	0	80	5	0	0	0	5	196
03:30 PM	32	127	0	0	159	0	0	0	0	0	0	63	12	0	75	3	0	5	1	9	243
03:45 PM	22	83	0	0	105	0	0	0	0	0	0	65	9	0	74	9	0	11	0	20	199
04:00 PM	15	121	0	0	136	0	0	0	0	0	0	77	6	0	83	10	0	17	0	27	246
Total Volume	80	431	0	0	511	0	0	0	0	0	0	277	35	0	312	27	0	33	1	61	884
% App. Total	15.7	84.3	0	0		0	0	0	0		0	88.8	11.2	0		44.3	0	54.1	1.6		
PHF	.625	.848	.000	.000	.803	.000	.000	.000	.000	.000	.000	.899	.729	.000	.940	.675	.000	.485	.250	.565	.898

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12224 Nicollet Avenue
Burnsville, MN 55337

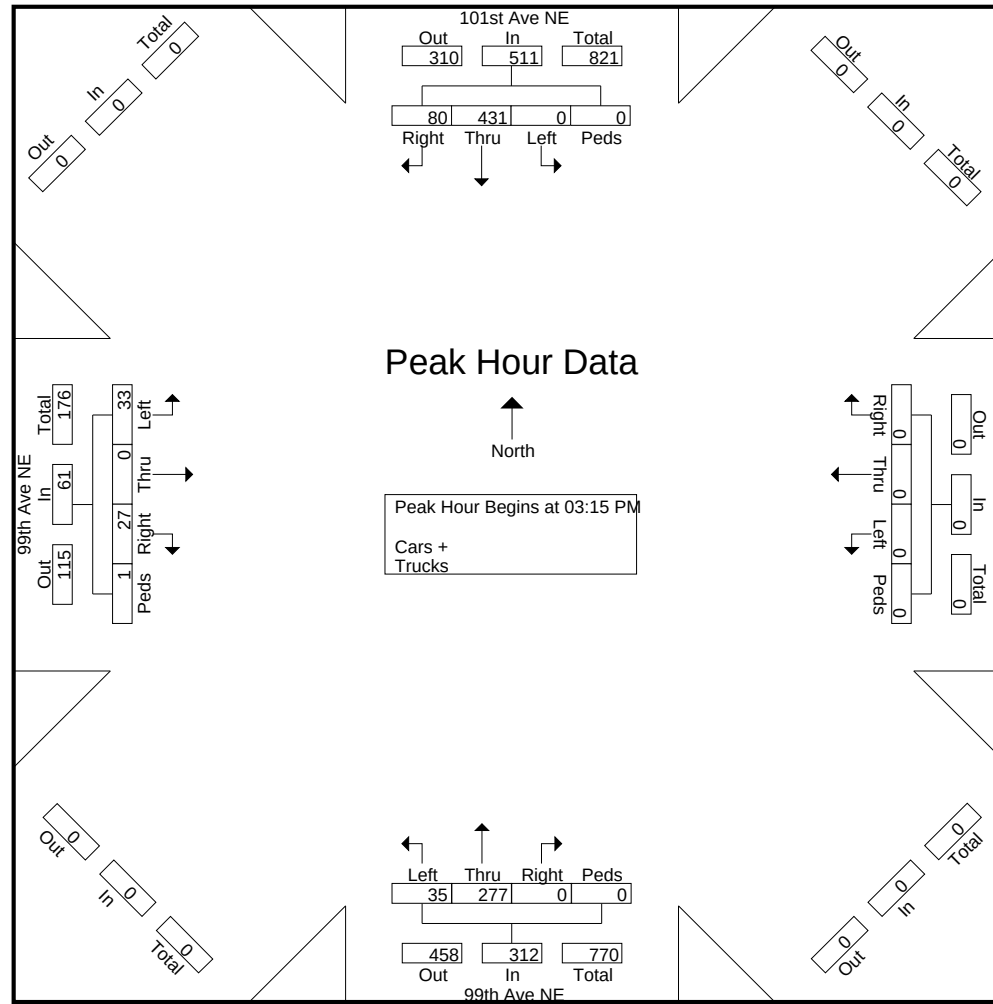
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99th Ave NE and 101st Ave NE
Blaine, Minnesota



Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : 99th Ave and Clover Leaf Pkwy_04112023_0000-2400

Site Code : 7

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99th Ave NE and Clover Leaf Pkwy
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	Clover Leaf Pkwy Southbound					99th Ave NE Westbound					Clover Leaf Pkwy Northbound					99th Ave NE Eastbound					Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
12:00 AM	0	0	0	0	0	0	3	0	0	3	1	0	0	0	1	4	4	0	0	8	12
12:15 AM	0	0	0	0	0	0	2	0	0	2	1	0	1	0	2	4	4	0	0	8	12
12:30 AM	0	0	0	0	0	0	2	0	0	2	0	0	2	0	2	1	2	0	0	3	7
12:45 AM	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	5	1	0	0	6	11
Total	0	0	0	0	0	0	11	0	0	11	2	0	4	0	6	14	11	0	0	25	42
01:00 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	3	0	0	3	6
01:15 AM	0	0	0	0	0	0	1	0	0	1	0	0	3	0	3	1	9	0	0	10	14
01:30 AM	0	0	0	0	0	0	4	1	0	5	0	0	1	0	1	1	4	1	0	6	12
01:45 AM	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	2	4	0	0	6	10
Total	0	0	1	0	1	0	11	1	0	12	0	0	4	0	4	4	20	1	0	25	42
02:00 AM	1	0	0	0	1	0	1	0	0	1	0	0	0	0	0	3	4	0	0	7	9
02:15 AM	0	0	0	0	0	1	1	0	0	2	0	0	0	0	0	1	3	1	0	5	7
02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	3	3
02:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	2	3	0	0	5	7
Total	1	0	0	0	1	1	3	0	0	4	0	0	1	0	1	7	12	1	0	20	26
03:00 AM	0	0	0	0	0	0	4	1	0	5	1	0	1	0	2	0	1	0	0	1	8
03:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	1	0	0	0	1	4
03:30 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	4	0	0	4	7
03:45 AM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	1	0	0	1	7
Total	0	0	0	0	0	0	16	1	0	17	1	0	1	0	2	1	6	0	0	7	26
04:00 AM	0	0	0	0	0	0	10	0	0	10	1	0	3	0	4	0	3	0	0	3	17
04:15 AM	4	0	0	0	4	0	5	0	0	5	0	0	3	0	3	1	4	0	0	5	17
04:30 AM	3	1	0	0	4	0	8	2	0	10	3	1	3	0	7	0	3	0	0	3	24
04:45 AM	1	0	2	0	3	0	12	0	0	12	2	0	4	0	6	1	3	0	0	4	25
Total	8	1	2	0	11	0	35	2	0	37	6	1	13	0	20	2	13	0	0	15	83
05:00 AM	3	0	2	0	5	0	9	0	0	9	1	0	5	0	6	2	9	0	0	11	31
05:15 AM	2	0	1	0	3	0	25	0	0	25	0	0	5	0	5	0	6	0	0	6	39
05:30 AM	3	0	0	0	3	0	35	0	0	35	1	0	12	0	13	2	9	0	0	11	62
05:45 AM	3	0	0	0	3	0	22	0	0	22	5	1	10	0	16	5	10	1	0	16	57
Total	11	0	3	0	14	0	91	0	0	91	7	1	32	0	40	9	34	1	0	44	189
06:00 AM	8	1	0	0	9	0	24	1	0	25	5	0	14	0	19	6	9	0	0	15	68
06:15 AM	3	0	0	0	3	0	26	0	0	26	0	0	18	0	18	5	18	1	0	24	71
06:30 AM	11	0	2	0	13	0	40	1	0	41	1	0	27	0	28	10	21	1	0	32	114

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

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99th Ave NE and Clover Leaf Pkwy
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	Clover Leaf Pkwy Southbound					99th Ave NE Westbound					Clover Leaf Pkwy Northbound					99th Ave NE Eastbound					Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
06:45 AM	3	0	1	0	4	0	47	0	0	47	3	0	30	1	34	4	25	2	2	33	118
Total	25	1	3	0	29	0	137	2	0	139	9	0	89	1	99	25	73	4	2	104	371
07:00 AM	8	1	4	0	13	1	54	2	0	57	3	0	28	0	31	5	20	0	0	25	126
07:15 AM	14	4	3	0	21	3	49	2	0	54	3	0	22	0	25	10	19	2	1	32	132
07:30 AM	12	4	5	0	21	2	42	0	0	44	1	1	35	0	37	10	32	5	1	48	150
07:45 AM	8	1	5	0	14	1	50	3	0	54	6	1	20	0	27	14	38	1	0	53	148
Total	42	10	17	0	69	7	195	7	0	209	13	2	105	0	120	39	109	8	2	158	556
08:00 AM	8	3	4	0	15	1	38	1	0	40	4	3	19	0	26	3	29	3	0	35	116
08:15 AM	6	3	2	0	11	0	35	0	0	35	3	1	21	0	25	9	24	3	0	36	107
08:30 AM	6	1	1	2	10	1	27	2	3	33	6	2	17	0	25	9	28	1	0	38	106
08:45 AM	5	1	6	2	14	1	45	2	1	49	5	1	20	0	26	13	29	0	4	46	135
Total	25	8	13	4	50	3	145	5	4	157	18	7	77	0	102	34	110	7	4	155	464
09:00 AM	2	1	2	1	6	1	49	1	2	53	9	1	17	2	29	12	29	1	0	42	130
09:15 AM	3	1	1	1	6	0	31	2	0	33	8	3	22	0	33	15	43	3	0	61	133
09:30 AM	7	2	3	0	12	2	41	3	1	47	3	0	19	1	23	13	16	2	0	31	113
09:45 AM	5	2	6	0	13	1	40	1	0	42	2	2	12	0	16	8	26	3	1	38	109
Total	17	6	12	2	37	4	161	7	3	175	22	6	70	3	101	48	114	9	1	172	485
10:00 AM	2	0	2	2	6	1	37	1	0	39	1	0	14	0	15	11	24	1	0	36	96
10:15 AM	1	0	2	0	3	4	30	0	0	34	5	0	19	0	24	17	26	1	1	45	106
10:30 AM	5	1	1	2	9	2	39	3	2	46	5	0	14	0	19	11	25	3	1	40	114
10:45 AM	1	3	2	1	7	2	29	3	0	34	3	0	17	0	20	8	33	1	1	43	104
Total	9	4	7	5	25	9	135	7	2	153	14	0	64	0	78	47	108	6	3	164	420
11:00 AM	3	0	2	0	5	3	30	6	0	39	5	1	11	0	17	9	32	7	0	48	109
11:15 AM	4	2	3	1	10	3	38	4	0	45	7	1	6	0	14	16	27	4	0	47	116
11:30 AM	6	2	4	0	12	1	40	2	1	44	2	0	9	0	11	7	34	3	0	44	111
11:45 AM	7	1	1	2	11	1	34	3	0	38	3	2	17	0	22	13	39	3	2	57	128
Total	20	5	10	3	38	8	142	15	1	166	17	4	43	0	64	45	132	17	2	196	464
12:00 PM	2	2	1	0	5	1	45	4	1	51	3	2	13	0	18	11	39	3	2	55	129
12:15 PM	5	3	2	0	10	4	32	5	0	41	7	2	16	1	26	9	42	5	3	59	136
12:30 PM	3	1	0	0	4	2	35	7	2	46	7	1	15	1	24	14	33	5	2	54	128
12:45 PM	3	3	3	0	9	4	46	4	0	54	3	2	9	1	15	18	44	5	1	68	146
Total	13	9	6	0	28	11	158	20	3	192	20	7	53	3	83	52	158	18	8	236	539

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

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99th Ave NE and Clover Leaf Pkwy
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	Clover Leaf Pkwy Southbound					99th Ave NE Westbound					Clover Leaf Pkwy Northbound					99th Ave NE Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
01:00 PM	1	0	1	0	2	4	39	3	0	46	4	1	14	0	19	18	36	3	0	57	124
01:15 PM	3	1	2	0	6	3	40	4	0	47	4	1	19	0	24	12	25	3	2	42	119
01:30 PM	5	2	5	0	12	0	28	7	0	35	6	2	22	0	30	14	31	3	1	49	126
01:45 PM	6	0	3	0	9	1	33	4	0	38	2	1	14	0	17	20	36	5	2	63	127
Total	15	3	11	0	29	8	140	18	0	166	16	5	69	0	90	64	128	14	5	211	496
02:00 PM	2	2	1	0	5	1	31	3	0	35	6	2	18	2	28	24	36	1	4	65	133
02:15 PM	5	1	1	0	7	3	34	7	0	44	2	2	13	0	17	29	48	3	1	81	149
02:30 PM	5	4	2	1	12	2	40	7	0	49	3	1	12	0	16	16	43	6	4	69	146
02:45 PM	1	0	2	0	3	2	39	6	0	47	3	2	20	0	25	25	64	2	0	91	166
Total	13	7	6	1	27	8	144	23	0	175	14	7	63	2	86	94	191	12	9	306	594
03:00 PM	1	2	3	1	7	4	50	3	0	57	6	2	15	0	23	19	73	5	2	99	186
03:15 PM	4	4	3	1	12	2	48	4	0	54	8	0	22	0	30	25	70	11	2	108	204
03:30 PM	2	2	5	0	9	5	52	5	0	62	4	4	17	0	25	32	95	4	2	133	229
03:45 PM	3	2	2	1	8	6	52	7	2	67	4	1	17	0	22	28	63	3	1	95	192
Total	10	10	13	3	36	17	202	19	2	240	22	7	71	0	100	104	301	23	7	435	811
04:00 PM	2	2	2	1	7	11	67	8	0	86	4	4	16	3	27	36	82	10	2	130	250
04:15 PM	8	6	1	0	15	10	42	11	0	63	10	5	16	1	32	23	68	9	1	101	211
04:30 PM	4	1	2	0	7	2	49	6	0	57	5	5	13	0	23	39	54	10	6	109	196
04:45 PM	8	3	3	2	16	3	51	9	0	63	4	3	26	1	34	38	71	9	7	125	238
Total	22	12	8	3	45	26	209	34	0	269	23	17	71	5	116	136	275	38	16	465	895
05:00 PM	5	1	7	0	13	7	44	7	1	59	4	2	34	2	42	38	85	12	6	141	255
05:15 PM	7	1	6	7	21	2	38	2	8	50	5	2	20	2	29	34	83	11	5	133	233
05:30 PM	8	1	2	4	15	4	41	5	2	52	8	1	16	0	25	28	61	5	3	97	189
05:45 PM	5	1	2	2	10	6	37	8	1	52	3	0	19	6	28	29	56	12	12	109	199
Total	25	4	17	13	59	19	160	22	12	213	20	5	89	10	124	129	285	40	26	480	876
06:00 PM	6	3	2	0	11	1	60	9	0	70	4	1	23	1	29	19	58	7	6	90	200
06:15 PM	1	5	2	1	9	6	35	5	0	46	3	1	20	0	24	25	36	3	6	70	149
06:30 PM	10	4	5	0	19	4	40	2	0	46	4	1	22	1	28	19	44	3	5	71	164
06:45 PM	3	0	1	0	4	1	36	4	0	41	1	0	11	1	13	19	39	6	1	65	123
Total	20	12	10	1	43	12	171	20	0	203	12	3	76	3	94	82	177	19	18	296	636
07:00 PM	2	1	2	0	5	1	39	4	0	44	2	2	9	0	13	18	46	4	0	68	130
07:15 PM	6	2	1	0	9	1	30	3	0	34	4	2	15	0	21	25	30	5	0	60	124
07:30 PM	2	0	3	0	5	2	29	1	0	32	5	1	16	2	24	20	41	6	0	67	128

Bolton & Menk, Inc.

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Burnsville, MN 55337

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99th Ave NE and Clover Leaf Pkwy
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	Clover Leaf Pkwy Southbound					99th Ave NE Westbound					Clover Leaf Pkwy Northbound					99th Ave NE Eastbound					Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:45 PM	2	1	4	1	8	3	32	5	0	40	1	1	8	0	10	14	31	2	0	47	105
Total	12	4	10	1	27	7	130	13	0	150	12	6	48	2	68	77	148	17	0	242	487
08:00 PM	2	0	2	0	4	4	23	5	1	33	6	0	7	2	15	16	34	3	0	53	105
08:15 PM	1	0	2	0	3	3	24	5	0	32	0	1	8	2	11	20	33	5	0	58	104
08:30 PM	1	2	1	0	4	3	23	6	1	33	3	0	13	0	16	12	29	1	1	43	96
08:45 PM	3	0	1	0	4	2	17	2	0	21	1	1	5	0	7	19	27	1	0	47	79
Total	7	2	6	0	15	12	87	18	2	119	10	2	33	4	49	67	123	10	1	201	384
09:00 PM	3	0	1	0	4	6	30	5	0	41	2	0	10	0	12	15	24	3	1	43	100
09:15 PM	1	0	0	0	1	1	22	5	0	28	5	0	4	0	9	13	24	3	0	40	78
09:30 PM	3	1	0	0	4	2	12	1	0	15	1	2	1	0	4	9	17	3	0	29	52
09:45 PM	0	1	0	0	1	1	5	3	0	9	1	0	5	0	6	7	17	2	0	26	42
Total	7	2	1	0	10	10	69	14	0	93	9	2	20	0	31	44	82	11	1	138	272
10:00 PM	0	0	0	0	0	1	12	1	0	14	1	0	5	0	6	12	17	5	0	34	54
10:15 PM	0	0	1	0	1	2	11	1	0	14	0	0	5	0	5	13	16	1	0	30	50
10:30 PM	1	0	2	0	3	0	7	2	0	9	1	0	2	0	3	5	10	1	0	16	31
10:45 PM	0	0	0	0	0	2	6	3	0	11	0	0	2	0	2	6	10	3	0	19	32
Total	1	0	3	0	4	5	36	7	0	48	2	0	14	0	16	36	53	10	0	99	167
11:00 PM	0	0	0	0	0	0	5	0	0	5	1	1	4	0	6	6	16	0	0	22	33
11:15 PM	0	0	0	0	0	2	5	0	0	7	0	0	1	0	1	3	9	2	0	14	22
11:30 PM	1	0	0	0	1	0	3	0	0	3	0	1	1	0	2	9	11	2	0	22	28
11:45 PM	0	0	0	0	0	0	1	1	0	2	0	0	2	0	2	7	4	1	0	12	16
Total	1	0	0	0	1	2	14	1	0	17	1	2	8	0	11	25	40	5	0	70	99
Grand Total	304	100	159	36	599	169	2602	256	29	3056	270	84	1118	33	1505	1185	2703	271	105	4264	9424
Apprch %	50.8	16.7	26.5	6		5.5	85.1	8.4	0.9		17.9	5.6	74.3	2.2		27.8	63.4	6.4	2.5		
Total %	3.2	1.1	1.7	0.4	6.4	1.8	27.6	2.7	0.3	32.4	2.9	0.9	11.9	0.4	16	12.6	28.7	2.9	1.1	45.2	
Cars +	299	93	156	31	579	165	2570	251	21	3007	260	80	1092	22	1454	1164	2659	268	92	4183	9223
% Cars +	98.4	93	98.1	86.1	96.7	97.6	98.8	98	72.4	98.4	96.3	95.2	97.7	66.7	96.6	98.2	98.4	98.9	87.6	98.1	97.9
Trucks	5	7	3	5	20	4	32	5	8	49	10	4	26	11	51	21	44	3	13	81	201
% Trucks	1.6	7	1.9	13.9	3.3	2.4	1.2	2	27.6	1.6	3.7	4.8	2.3	33.3	3.4	1.8	1.6	1.1	12.4	1.9	2.1

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

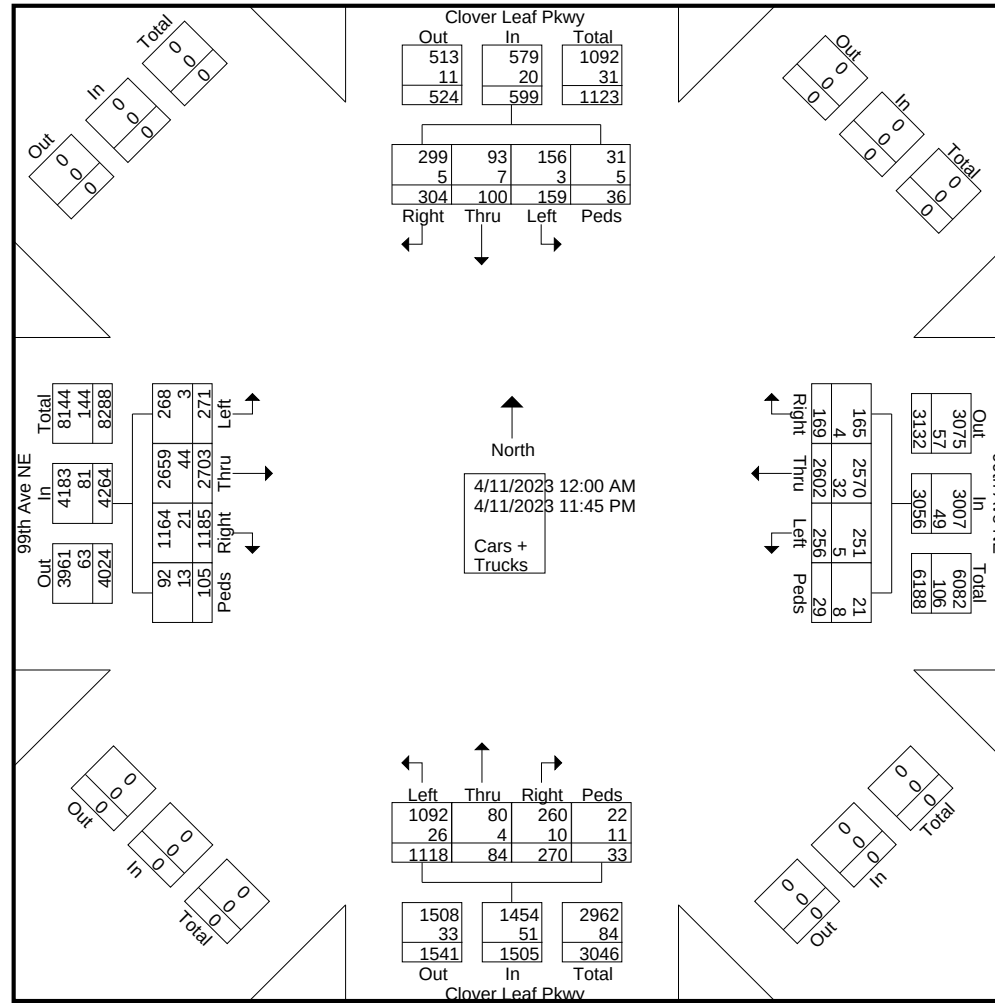
File Name : 99th Ave and Clover Leaf Pkwy_04112023_0000-2400

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99th Ave NE and Clover Leaf Pkwy
Blaine, Minnesota



Bolton & Menk, Inc.

12224 Nicollet Avenue
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99th Ave NE and Clover Leaf Pkwy
Blaine, Minnesota

	Clover Leaf Pkwy Southbound					99th Ave NE Westbound					Clover Leaf Pkwy Northbound					99th Ave NE Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 AM to 12:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	8	1	4	0	13	1	54	2	0	57	3	0	28	0	31	5	20	0	0	25	126
07:15 AM	14	4	3	0	21	3	49	2	0	54	3	0	22	0	25	10	19	2	1	32	132
07:30 AM	12	4	5	0	21	2	42	0	0	44	1	1	35	0	37	10	32	5	1	48	150
07:45 AM	8	1	5	0	14	1	50	3	0	54	6	1	20	0	27	14	38	1	0	53	148
Total Volume	42	10	17	0	69	7	195	7	0	209	13	2	105	0	120	39	109	8	2	158	556
% App. Total	60.9	14.5	24.6	0		3.3	93.3	3.3	0		10.8	1.7	87.5	0		24.7	69	5.1	1.3		
PHF	.750	.625	.850	.000	.821	.583	.903	.583	.000	.917	.542	.500	.750	.000	.811	.696	.717	.400	.500	.745	.927

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

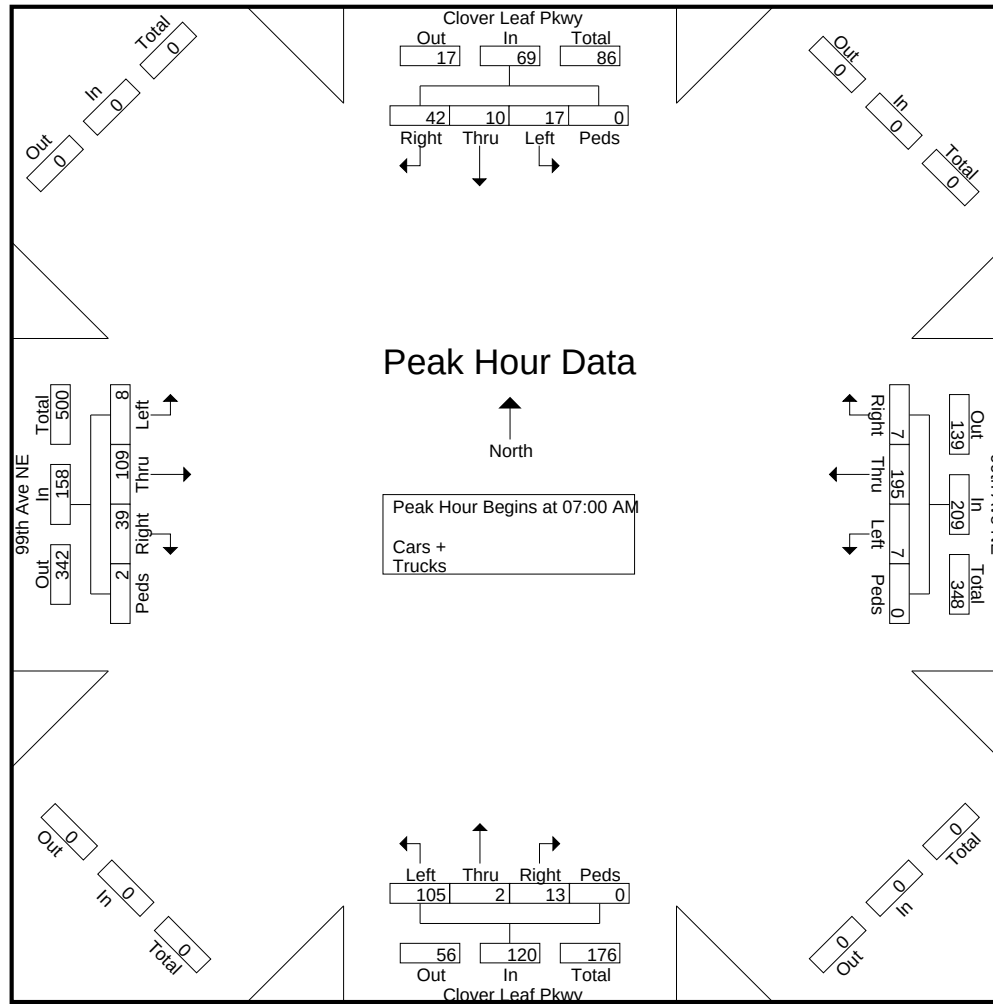
File Name : 99th Ave and Clover Leaf Pkwy_04112023_0000-2400

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99th Ave NE and Clover Leaf Pkwy
Blaine, Minnesota



Bolton & Menk, Inc.

12224 Nicollet Avenue
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99th Ave NE and Clover Leaf Pkwy
Blaine, Minnesota

	Clover Leaf Pkwy Southbound					99th Ave NE Westbound					Clover Leaf Pkwy Northbound					99th Ave NE Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:15 PM to 11:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:30 PM																					
04:30 PM	4	1	2	0	7	2	49	6	0	57	5	5	13	0	23	39	54	10	6	109	196
04:45 PM	8	3	3	2	16	3	51	9	0	63	4	3	26	1	34	38	71	9	7	125	238
05:00 PM	5	1	7	0	13	7	44	7	1	59	4	2	34	2	42	38	85	12	6	141	255
05:15 PM	7	1	6	7	21	2	38	2	8	50	5	2	20	2	29	34	83	11	5	133	233
Total Volume	24	6	18	9	57	14	182	24	9	229	18	12	93	5	128	149	293	42	24	508	922
% App. Total	42.1	10.5	31.6	15.8		6.1	79.5	10.5	3.9		14.1	9.4	72.7	3.9		29.3	57.7	8.3	4.7		
PHF	.750	.500	.643	.321	.679	.500	.892	.667	.281	.909	.900	.600	.684	.625	.762	.955	.862	.875	.857	.901	.904

12224 Nicollet Avenue
Burnsville, MN 55337

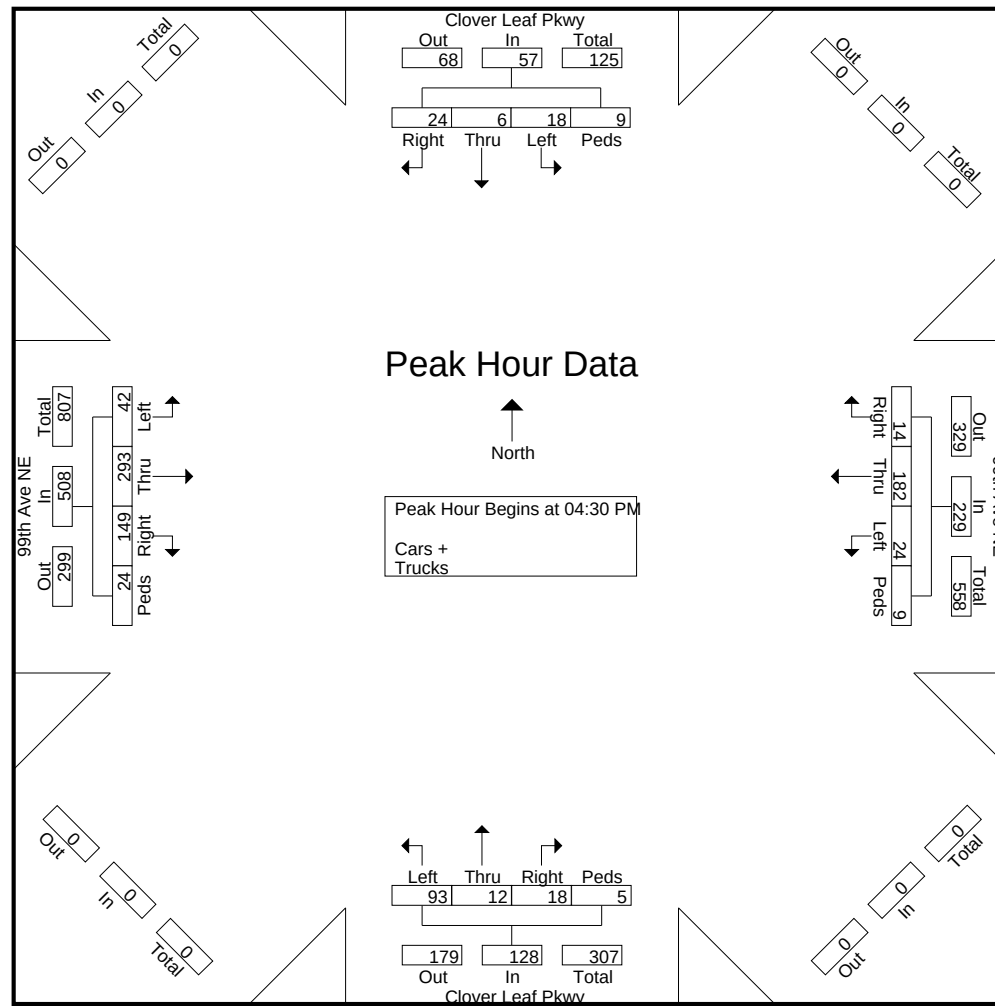
File Name : 99th Ave and Clover Leaf Pkwy_04112023_0000-2400

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99th Ave NE and Clover Leaf Pkwy
Blaine, Minnesota



Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : 99th Ave and Frontage Rd_04112023_0000-2400

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99th Ave NE at Frontage Rd
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	Southbound					99th Ave Ne Westbound					Frontage Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
01:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
04:45 AM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
05:15 AM	0	0	0	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	2
05:30 AM	0	0	0	0	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4
05:45 AM	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	3
Total	0	0	0	0	0	7	0	0	1	8	1	0	0	0	1	0	0	0	0	0	9
06:00 AM	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
06:15 AM	0	0	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	0	0	0	8
06:30 AM	0	0	0	0	0	1	0	0	0	1	4	0	0	0	4	0	0	0	0	0	5

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

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Site Code : 7

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99th Ave NE at Frontage Rd
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	Southbound					99th Ave Ne Westbound					Frontage Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:45 AM	0	0	0	0	0	4	0	0	0	4	4	0	0	0	4	0	0	0	0	0	8
Total	0	0	0	0	0	15	0	0	0	15	8	0	0	0	8	0	0	0	0	0	23
07:00 AM	0	0	0	0	0	4	0	0	0	4	1	0	0	0	1	0	0	0	0	0	5
07:15 AM	0	0	0	0	0	8	0	0	0	8	2	0	0	0	2	0	0	0	0	0	10
07:30 AM	0	0	0	0	0	11	0	0	0	11	2	0	0	0	2	0	0	0	0	0	13
07:45 AM	0	0	0	0	0	8	0	0	0	8	5	0	0	0	5	0	0	0	0	0	13
Total	0	0	0	0	0	31	0	0	0	31	10	0	0	0	10	0	0	0	0	0	41
08:00 AM	0	0	0	0	0	7	0	0	0	7	8	0	0	0	8	0	0	0	0	0	15
08:15 AM	0	0	0	0	0	4	0	0	0	4	7	0	0	0	7	0	0	0	0	0	11
08:30 AM	0	0	0	0	0	3	0	0	0	3	10	0	0	0	10	0	0	0	0	0	13
08:45 AM	0	0	0	0	0	7	0	0	0	7	2	0	0	0	2	0	0	0	0	0	9
Total	0	0	0	0	0	21	0	0	0	21	27	0	0	0	27	0	0	0	0	0	48
09:00 AM	0	0	0	0	0	20	0	0	0	20	11	0	0	0	11	0	0	0	0	0	31
09:15 AM	0	0	0	0	0	36	0	1	0	37	10	0	0	0	10	0	0	0	0	0	47
09:30 AM	0	0	0	0	0	2	0	0	0	2	5	0	0	0	5	0	0	0	0	0	7
09:45 AM	0	0	0	0	0	2	0	1	1	4	2	0	0	0	2	0	0	0	0	0	6
Total	0	0	0	0	0	60	0	2	1	63	28	0	0	0	28	0	0	0	0	0	91
10:00 AM	0	0	0	0	0	1	0	0	0	1	3	0	0	0	3	0	0	0	0	0	4
10:15 AM	0	0	0	0	0	4	0	2	0	6	7	0	0	0	7	0	0	0	0	0	13
10:30 AM	0	0	0	0	0	0	0	0	2	2	2	0	0	0	2	0	0	0	0	0	4
10:45 AM	0	0	0	0	0	1	0	0	1	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	6	0	2	3	11	12	0	0	0	12	0	0	0	0	0	23
11:00 AM	0	0	0	0	0	2	0	0	0	2	2	0	0	0	2	0	0	0	0	0	4
11:15 AM	0	0	0	0	0	4	0	0	0	4	1	0	0	0	1	0	0	0	0	0	5
11:30 AM	0	0	0	0	0	5	0	1	0	6	2	0	0	0	2	0	0	0	0	0	8
11:45 AM	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5
Total	0	0	0	0	0	16	0	1	0	17	5	0	0	0	5	0	0	0	0	0	22
12:00 PM	0	0	0	0	0	9	0	0	1	10	2	0	0	0	2	0	0	0	0	0	12
12:15 PM	0	0	0	0	0	5	0	0	1	6	0	0	0	0	0	0	0	0	0	0	6
12:30 PM	0	0	0	0	0	5	0	2	1	8	0	0	0	0	0	0	0	0	0	0	8
12:45 PM	0	0	0	0	0	7	0	1	0	8	2	0	0	0	2	0	0	0	0	0	10
Total	0	0	0	0	0	26	0	3	3	32	4	0	0	0	4	0	0	0	0	0	36

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

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99th Ave NE at Frontage Rd
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	Southbound					99th Ave Ne Westbound					Frontage Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
01:00 PM	0	0	0	0	0	5	0	0	0	5	1	0	0	0	1	0	0	0	0	0	6
01:15 PM	0	0	0	0	0	6	0	2	1	9	2	0	0	0	2	0	0	0	0	0	11
01:30 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	2
01:45 PM	0	0	0	0	0	7	0	0	1	8	0	0	0	0	0	0	0	0	0	0	8
Total	0	0	0	0	0	19	0	2	2	23	4	0	0	0	4	0	0	0	0	0	27
02:00 PM	0	0	0	0	0	7	0	0	0	7	1	0	0	0	1	0	0	0	0	0	8
02:15 PM	0	0	0	0	0	3	0	0	0	3	2	0	0	0	2	0	0	0	0	0	5
02:30 PM	0	0	0	0	0	1	0	1	0	2	1	0	0	0	1	0	0	0	0	0	3
02:45 PM	0	0	0	0	0	1	0	0	0	1	3	0	0	0	3	0	0	0	0	0	4
Total	0	0	0	0	0	12	0	1	0	13	7	0	0	0	7	0	0	0	0	0	20
03:00 PM	0	0	0	0	0	4	0	0	0	4	1	0	0	0	1	0	0	0	0	0	5
03:15 PM	0	0	0	0	0	11	0	0	0	11	3	0	0	0	3	0	0	0	0	0	14
03:30 PM	0	0	0	0	0	5	0	0	0	5	5	0	0	0	5	0	0	0	0	0	10
03:45 PM	0	0	0	0	0	19	0	2	2	23	0	0	0	0	0	0	0	0	0	0	23
Total	0	0	0	0	0	39	0	2	2	43	9	0	0	0	9	0	0	0	0	0	52
04:00 PM	0	0	0	0	0	28	0	0	0	28	4	0	0	0	4	0	0	0	0	0	32
04:15 PM	0	0	0	0	0	18	0	0	2	20	4	0	0	0	4	0	0	0	0	0	24
04:30 PM	0	0	0	0	0	8	0	0	1	9	2	0	0	0	2	0	0	0	0	0	11
04:45 PM	0	0	0	0	0	7	0	0	0	7	5	0	0	0	5	0	0	0	0	0	12
Total	0	0	0	0	0	61	0	0	3	64	15	0	0	0	15	0	0	0	0	0	79
05:00 PM	0	0	0	0	0	5	0	1	0	6	5	0	0	0	5	0	0	0	0	0	11
05:15 PM	0	0	0	0	0	9	0	0	2	11	6	0	0	0	6	0	0	0	0	0	17
05:30 PM	0	0	0	0	0	11	0	0	0	11	4	0	0	0	4	0	0	0	0	0	15
05:45 PM	0	0	0	0	0	5	0	2	0	7	1	0	0	0	1	0	0	0	0	0	8
Total	0	0	0	0	0	30	0	3	2	35	16	0	0	0	16	0	0	0	0	0	51
06:00 PM	0	0	0	0	0	11	0	1	0	12	2	0	0	0	2	0	0	0	0	0	14
06:15 PM	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
06:30 PM	0	0	0	0	0	1	0	0	1	2	1	0	0	0	1	0	0	0	0	0	3
06:45 PM	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	16	0	1	1	18	3	0	0	0	3	0	0	0	0	0	21
07:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
07:15 PM	0	0	0	0	0	1	0	0	0	1	3	0	0	0	3	0	0	0	0	0	4
07:30 PM	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : 99th Ave and Frontage Rd_04112023_0000-2400

Site Code : 7

Start Date : 4/11/2023

Page No : 4

99th Ave NE at Frontage Rd
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	Southbound					99th Ave Ne Westbound					Frontage Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
07:45 PM	0	0	0	0	0	2	0	0	0	2	1	0	0	0	1	0	0	0	0	0	3
Total	0	0	0	0	0	7	0	0	0	7	4	0	0	0	4	0	0	0	0	0	11
08:00 PM	0	0	0	0	0	4	0	1	1	6	1	0	0	0	1	0	0	0	0	0	7
08:15 PM	0	0	0	0	0	2	0	1	2	5	3	0	0	0	3	0	0	0	0	0	8
08:30 PM	0	0	0	0	0	3	0	0	1	4	1	0	0	0	1	0	0	0	0	0	5
08:45 PM	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	11	0	2	4	17	5	0	0	0	5	0	0	0	0	0	22
09:00 PM	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	5
09:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
09:30 PM	0	0	0	0	0	1	0	0	1	2	1	0	0	0	1	0	0	0	0	0	3
09:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
Total	0	0	0	0	0	6	0	0	1	7	4	0	0	0	4	0	0	0	0	0	11
10:00 PM	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3
10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 PM	0	0	0	0	0	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	2
10:45 PM	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	0	0	0	6	0	1	0	7	0	0	0	0	0	0	0	0	0	0	7
11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Grand Total	0	0	0	0	0	393	0	20	23	436	163	0	0	0	163	0	0	0	0	0	599
Apprch %	0	0	0	0		90.1	0	4.6	5.3		100	0	0	0		0	0	0	0		
Total %	0	0	0	0	0	65.6	0	3.3	3.8	72.8	27.2	0	0	0	27.2	0	0	0	0	0	
Cars +	0	0	0	0	0	392	0	19	12	423	153	0	0	0	153	0	0	0	0	0	576
% Cars +	0	0	0	0	0	99.7	0	95	52.2	97	93.9	0	0	0	93.9	0	0	0	0	0	96.2
Trucks	0	0	0	0	0	1	0	1	11	13	10	0	0	0	10	0	0	0	0	0	23
% Trucks	0	0	0	0	0	0.3	0	5	47.8	3	6.1	0	0	0	6.1	0	0	0	0	0	3.8

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

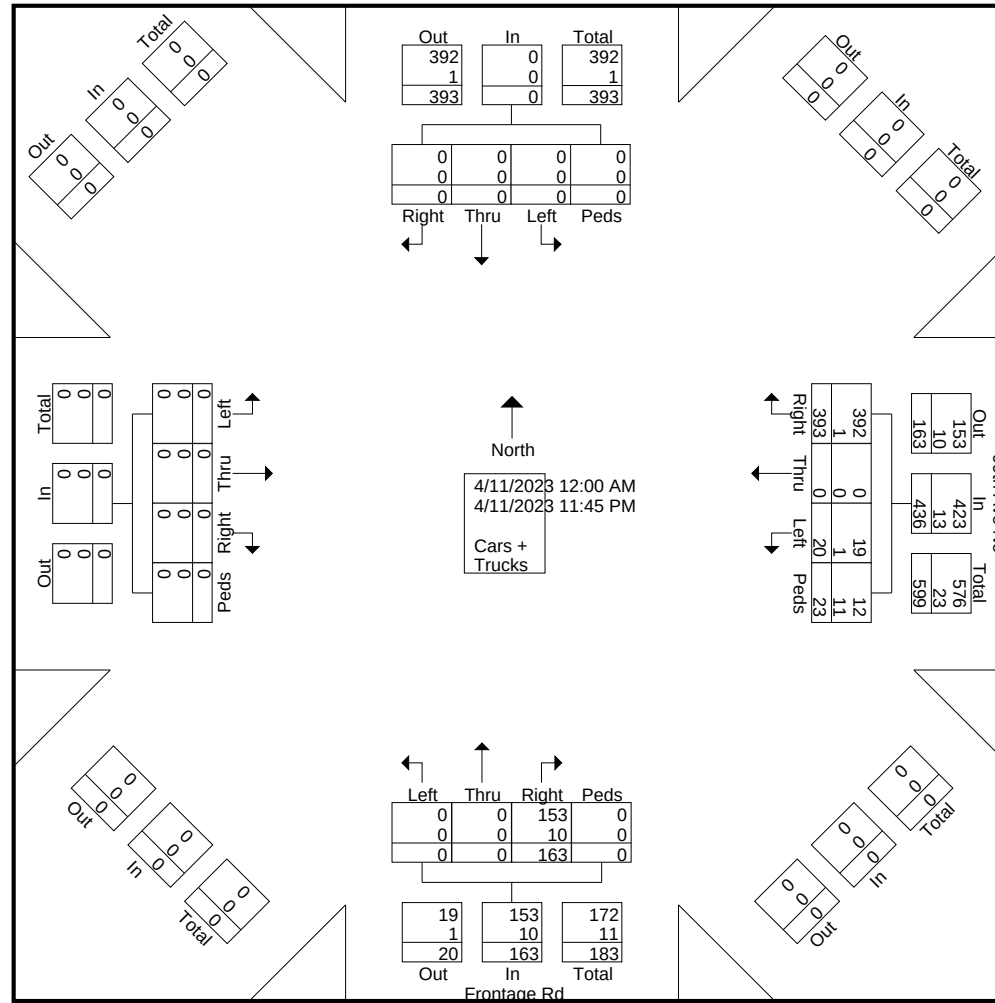
File Name : 99th Ave and Frontage Rd_04112023_0000-2400

Site Code : 7

Start Date : 4/11/2023

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99th Ave NE at Frontage Rd
Blaine, Minnesota



Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : 99th Ave and Frontage Rd_04112023_0000-2400

Site Code : 7

Start Date : 4/11/2023

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99th Ave NE at Frontage Rd
Blaine, Minnesota

	Southbound					99th Ave Ne Westbound					Frontage Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 AM to 12:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:30 AM																					
08:30 AM	0	0	0	0	0	3	0	0	0	3	10	0	0	0	10	0	0	0	0	0	13
08:45 AM	0	0	0	0	0	7	0	0	0	7	2	0	0	0	2	0	0	0	0	0	9
09:00 AM	0	0	0	0	0	20	0	0	0	20	11	0	0	0	11	0	0	0	0	0	31
09:15 AM	0	0	0	0	0	36	0	1	0	37	10	0	0	0	10	0	0	0	0	0	47
Total Volume	0	0	0	0	0	66	0	1	0	67	33	0	0	0	33	0	0	0	0	0	100
% App. Total	0	0	0	0		98.5	0	1.5	0		100	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.458	.000	.250	.000	.453	.750	.000	.000	.000	.750	.000	.000	.000	.000	.000	.532

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

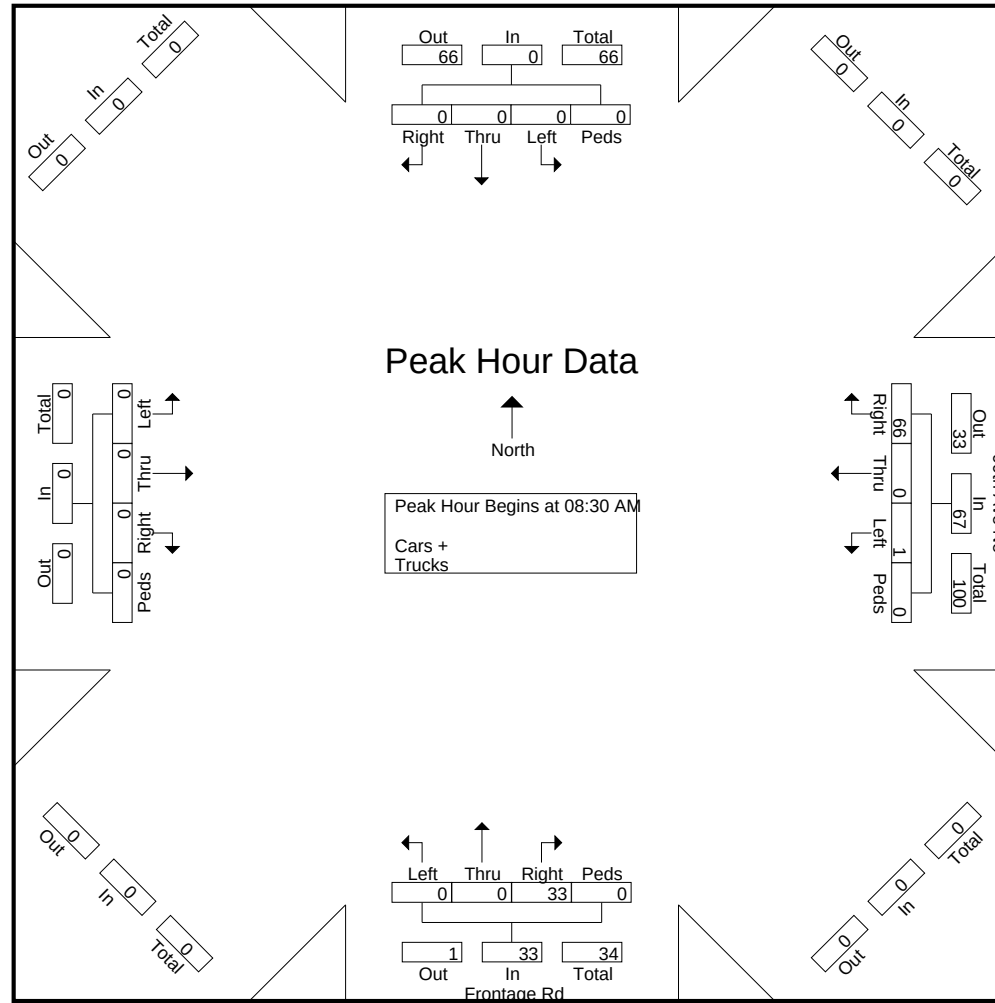
File Name : 99th Ave and Frontage Rd_04112023_0000-2400

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99th Ave NE at Frontage Rd
Blaine, Minnesota



Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : 99th Ave and Frontage Rd_04112023_0000-2400

Site Code : 7

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99th Ave NE at Frontage Rd
Blaine, Minnesota

	Southbound					99th Ave Ne Westbound					Frontage Rd Northbound					Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:15 PM to 11:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 03:45 PM																					
03:45 PM	0	0	0	0	0	19	0	2	2	23	0	0	0	0	0	0	0	0	0	0	23
04:00 PM	0	0	0	0	0	28	0	0	0	28	4	0	0	0	4	0	0	0	0	0	32
04:15 PM	0	0	0	0	0	18	0	0	2	20	4	0	0	0	4	0	0	0	0	0	24
04:30 PM	0	0	0	0	0	8	0	0	1	9	2	0	0	0	2	0	0	0	0	0	11
Total Volume	0	0	0	0	0	73	0	2	5	80	10	0	0	0	10	0	0	0	0	0	90
% App. Total	0	0	0	0	0	91.2	0	2.5	6.2		100	0	0	0		0	0	0	0		
PHF	.000	.000	.000	.000	.000	.652	.000	.250	.625	.714	.625	.000	.000	.000	.625	.000	.000	.000	.000	.000	.703

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12224 Nicollet Avenue
Burnsville, MN 55337

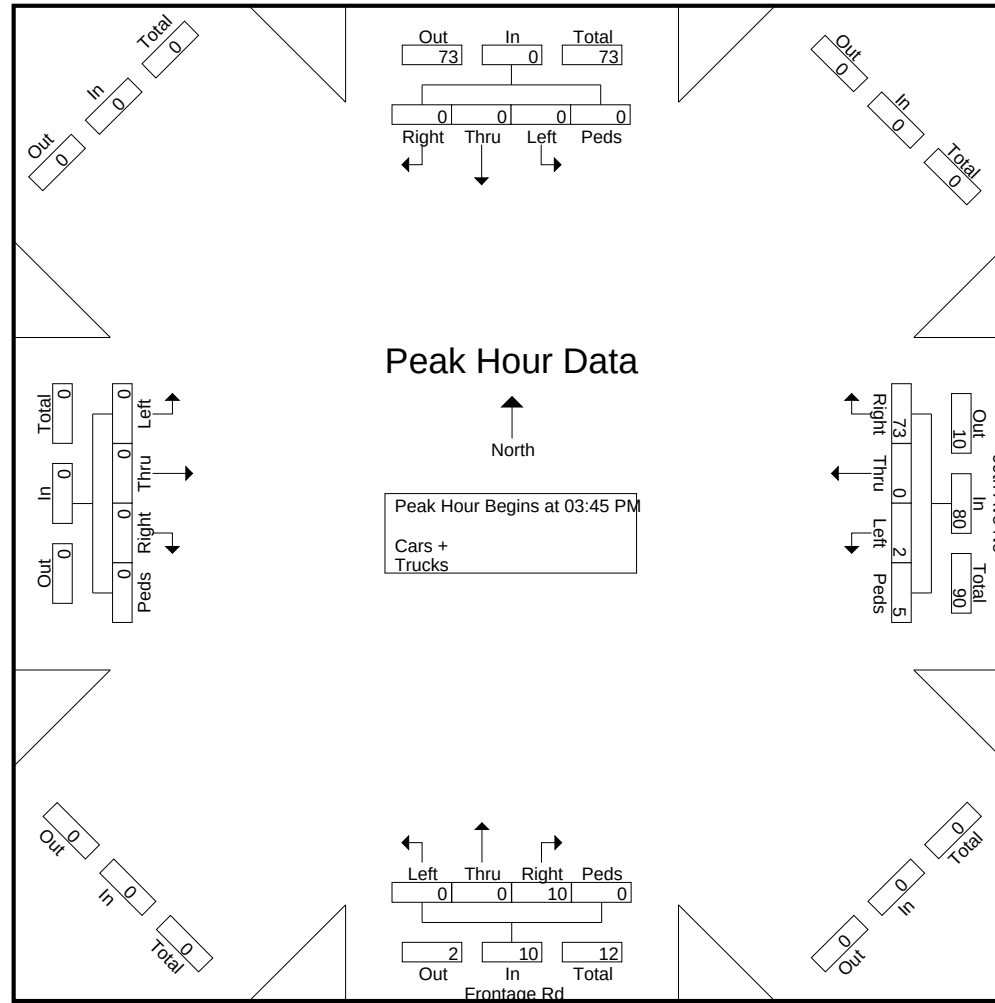
File Name : 99th Ave and Frontage Rd_04112023_0000-2400

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99th Ave NE at Frontage Rd
Blaine, Minnesota



Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : University Ave at 101st Ave NE_04112023_0000-2400

Site Code : 7

Start Date : 4/11/2023

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University Ave NE and 101st Ave NE
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	University Ave NE Southbound					101st Ave NE Westbound					University Ave NE Northbound					101st Ave NE Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
12:00 AM	1	7	3	0	11	0	0	2	0	2	3	30	4	0	37	1	3	2	0	6	56
12:15 AM	0	7	0	0	7	0	0	2	0	2	3	13	3	0	19	2	5	1	0	8	36
12:30 AM	1	4	0	0	5	1	3	0	0	4	0	16	1	0	17	4	1	4	0	9	35
12:45 AM	1	7	1	0	9	1	3	1	0	5	5	16	2	0	23	2	1	1	0	4	41
Total	3	25	4	0	32	2	6	5	0	13	11	75	10	0	96	9	10	8	0	27	168
01:00 AM	2	10	1	0	13	0	3	0	0	3	1	14	2	0	17	3	1	4	0	8	41
01:15 AM	1	4	0	0	5	1	2	1	0	4	8	11	1	0	20	3	3	2	0	8	37
01:30 AM	1	6	2	0	9	1	3	1	0	5	4	8	4	0	16	1	1	1	0	3	33
01:45 AM	2	4	4	0	10	2	2	0	0	4	2	12	2	0	16	2	2	3	0	7	37
Total	6	24	7	0	37	4	10	2	0	16	15	45	9	0	69	9	7	10	0	26	148
02:00 AM	0	7	1	0	8	1	1	0	0	2	2	10	0	0	12	2	2	0	0	4	26
02:15 AM	0	3	0	0	3	1	0	0	0	1	3	16	1	0	20	1	2	0	0	3	27
02:30 AM	1	6	0	0	7	0	0	0	0	0	1	17	1	0	19	1	2	2	0	5	31
02:45 AM	1	3	1	0	5	0	1	1	0	2	3	6	3	0	12	0	1	3	0	4	23
Total	2	19	2	0	23	2	2	1	0	5	9	49	5	0	63	4	7	5	0	16	107
03:00 AM	0	13	0	0	13	2	1	1	0	4	1	6	0	0	7	0	1	1	0	2	26
03:15 AM	2	10	0	0	12	1	2	0	0	3	1	3	1	1	6	0	1	0	1	2	23
03:30 AM	0	18	1	0	19	0	0	2	0	2	1	4	2	0	7	4	1	3	0	8	36
03:45 AM	2	12	0	0	14	0	4	2	0	6	1	5	0	0	6	2	1	0	0	3	29
Total	4	53	1	0	58	3	7	5	0	15	4	18	3	1	26	6	4	4	1	15	114
04:00 AM	1	21	0	0	22	1	6	9	0	16	2	5	2	0	9	5	2	1	0	8	55
04:15 AM	4	32	1	0	37	0	4	10	0	14	0	8	0	0	8	5	3	0	0	8	67
04:30 AM	4	66	0	0	70	0	7	4	0	11	0	3	0	0	3	3	3	2	0	8	92
04:45 AM	4	54	3	0	61	1	9	12	0	22	0	9	3	0	12	7	3	0	0	10	105
Total	13	173	4	0	190	2	26	35	0	63	2	25	5	0	32	20	11	3	0	34	319
05:00 AM	11	66	4	1	82	1	8	14	0	23	1	5	2	0	8	14	2	3	0	19	132
05:15 AM	4	105	1	0	110	0	12	20	0	32	0	10	4	0	14	10	6	3	0	19	175
05:30 AM	9	130	2	1	142	0	23	25	0	48	4	15	7	0	26	19	5	4	0	28	244
05:45 AM	8	119	3	0	130	3	19	24	0	46	3	16	5	0	24	15	5	0	0	20	220
Total	32	420	10	2	464	4	62	83	0	149	8	46	18	0	72	58	18	10	0	86	771
06:00 AM	14	139	5	0	158	5	20	32	0	57	3	27	6	0	36	16	9	5	0	30	281
06:15 AM	17	209	3	1	230	3	14	32	0	49	9	32	8	1	50	26	10	7	0	43	372
06:30 AM	20	218	7	0	245	9	29	60	0	98	12	51	13	0	76	18	19	4	0	41	460

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : University Ave at 101st Ave NE_04112023_0000-2400

Site Code : 7

Start Date : 4/11/2023

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University Ave NE and 101st Ave NE
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	University Ave NE Southbound					101st Ave NE Westbound					University Ave NE Northbound					101st Ave NE Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
06:45 AM	18	211	9	0	238	5	32	44	1	82	7	65	9	1	82	27	19	9	0	55	457
Total	69	777	24	1	871	22	95	168	1	286	31	175	36	2	244	87	57	25	0	169	1570
07:00 AM	13	210	9	0	232	9	44	55	0	108	9	94	12	0	115	23	16	7	0	46	501
07:15 AM	14	252	10	0	276	9	42	64	0	115	15	75	11	0	101	23	24	11	0	58	550
07:30 AM	24	267	15	0	306	10	42	62	0	114	17	79	12	0	108	33	46	16	0	95	623
07:45 AM	17	237	10	0	264	7	35	53	1	96	13	97	15	1	126	37	44	17	0	98	584
Total	68	966	44	0	1078	35	163	234	1	433	54	345	50	1	450	116	130	51	0	297	2258
08:00 AM	22	152	7	0	181	5	30	43	0	78	23	80	17	2	122	29	23	13	0	65	446
08:15 AM	9	163	7	0	179	10	26	40	0	76	15	68	9	0	92	18	33	16	0	67	414
08:30 AM	16	179	5	0	200	4	18	42	0	64	15	79	16	0	110	19	23	12	0	54	428
08:45 AM	13	157	8	0	178	17	30	26	0	73	20	95	15	1	131	14	36	16	1	67	449
Total	60	651	27	0	738	36	104	151	0	291	73	322	57	3	455	80	115	57	1	253	1737
09:00 AM	12	113	21	0	146	9	28	16	0	53	15	91	18	0	124	14	42	19	0	75	398
09:15 AM	13	154	20	1	188	13	24	34	0	71	14	97	45	3	159	23	37	14	0	74	492
09:30 AM	9	137	11	0	157	10	35	37	0	82	17	88	16	1	122	14	13	21	0	48	409
09:45 AM	13	101	8	0	122	11	31	24	1	67	11	82	12	0	105	24	18	14	0	56	350
Total	47	505	60	1	613	43	118	111	1	273	57	358	91	4	510	75	110	68	0	253	1649
10:00 AM	10	94	6	0	110	3	22	28	0	53	17	73	10	0	100	11	22	17	0	50	313
10:15 AM	9	104	10	0	123	11	27	21	0	59	16	71	15	0	102	18	20	13	0	51	335
10:30 AM	11	96	11	0	118	8	34	26	1	69	12	83	12	0	107	21	28	12	0	61	355
10:45 AM	9	88	3	0	100	9	27	21	0	57	14	87	10	0	111	16	24	13	1	54	322
Total	39	382	30	0	451	31	110	96	1	238	59	314	47	0	420	66	94	55	1	216	1325
11:00 AM	9	82	5	0	96	7	26	17	0	50	18	83	8	0	109	8	25	12	0	45	300
11:15 AM	6	88	8	1	103	8	25	19	0	52	22	100	13	0	135	16	20	18	0	54	344
11:30 AM	15	91	11	0	117	10	32	18	0	60	15	91	18	0	124	11	28	18	0	57	358
11:45 AM	15	92	11	0	118	11	23	24	1	59	15	111	31	0	157	13	29	20	0	62	396
Total	45	353	35	1	434	36	106	78	1	221	70	385	70	0	525	48	102	68	0	218	1398
12:00 PM	7	83	10	0	100	10	32	16	0	58	19	119	15	1	154	17	21	26	1	65	377
12:15 PM	9	106	18	3	136	12	27	19	1	59	21	126	9	1	157	12	25	29	1	67	419
12:30 PM	14	93	8	0	115	16	21	21	0	58	25	118	10	0	153	15	25	16	2	58	384
12:45 PM	9	106	14	1	130	10	25	22	1	58	28	109	24	0	161	22	28	26	0	76	425
Total	39	388	50	4	481	48	105	78	2	233	93	472	58	2	625	66	99	97	4	266	1605

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : University Ave at 101st Ave NE_04112023_0000-2400

Site Code : 7

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University Ave NE and 101st Ave NE
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	University Ave NE Southbound					101st Ave NE Westbound					University Ave NE Northbound					101st Ave NE Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
01:00 PM	9	106	15	1	131	9	28	17	1	55	20	132	13	0	165	17	27	15	0	59	410
01:15 PM	11	115	7	0	133	13	31	23	0	67	18	150	11	0	179	24	14	25	0	63	442
01:30 PM	12	109	4	0	125	10	29	19	1	59	29	151	13	0	193	24	17	15	0	56	433
01:45 PM	12	107	10	1	130	15	16	27	1	59	23	155	14	0	192	15	30	19	0	64	445
Total	44	437	36	2	519	47	104	86	3	240	90	588	51	0	729	80	88	74	0	242	1730
02:00 PM	13	116	10	0	139	11	24	27	0	62	22	153	20	0	195	19	34	22	0	75	471
02:15 PM	6	122	13	0	141	9	27	12	0	48	43	186	26	0	255	19	29	16	0	64	508
02:30 PM	15	129	13	0	157	8	30	26	0	64	28	206	27	0	261	22	28	27	1	78	560
02:45 PM	16	88	15	0	119	10	27	25	0	62	43	252	22	0	317	20	42	30	0	92	590
Total	50	455	51	0	556	38	108	90	0	236	136	797	95	0	1028	80	133	95	1	309	2129
03:00 PM	11	120	12	0	143	14	31	23	0	68	33	240	16	0	289	12	50	23	0	85	585
03:15 PM	17	125	16	0	158	13	42	32	0	87	46	308	37	0	391	18	53	37	2	110	746
03:30 PM	16	133	33	2	184	17	42	16	0	75	58	292	26	1	377	23	66	35	1	125	761
03:45 PM	19	108	11	2	140	19	38	20	1	78	47	314	15	1	377	25	61	45	0	131	726
Total	63	486	72	4	625	63	153	91	1	308	184	1154	94	2	1434	78	230	140	3	451	2818
04:00 PM	16	140	21	0	177	20	48	36	0	104	58	363	39	0	460	26	46	24	0	96	837
04:15 PM	15	132	11	0	158	23	53	28	0	104	50	319	34	0	403	24	62	39	1	126	791
04:30 PM	24	143	23	0	190	21	35	29	0	85	54	373	26	1	454	21	32	33	0	86	815
04:45 PM	18	103	27	0	148	19	43	29	0	91	55	359	44	1	459	16	58	36	0	110	808
Total	73	518	82	0	673	83	179	122	0	384	217	1414	143	2	1776	87	198	132	1	418	3251
05:00 PM	13	111	23	0	147	25	43	37	0	105	59	339	20	0	418	14	51	34	0	99	769
05:15 PM	12	119	19	2	152	22	37	25	0	84	52	300	19	0	371	18	50	44	3	115	722
05:30 PM	21	118	10	1	150	15	38	32	1	86	39	295	19	1	354	27	45	33	2	107	697
05:45 PM	16	99	21	0	136	17	27	33	0	77	49	224	19	3	295	13	33	34	1	81	589
Total	62	447	73	3	585	79	145	127	1	352	199	1158	77	4	1438	72	179	145	6	402	2777
06:00 PM	16	117	14	0	147	18	46	27	0	91	47	178	21	0	246	10	24	28	0	62	546
06:15 PM	13	112	16	0	141	17	21	24	0	62	28	204	14	1	247	18	26	22	0	66	516
06:30 PM	11	92	16	0	119	21	28	28	2	79	24	145	17	0	186	15	32	23	0	70	454
06:45 PM	15	84	12	0	111	14	21	22	0	57	26	136	16	1	179	12	25	21	1	59	406
Total	55	405	58	0	518	70	116	101	2	289	125	663	68	2	858	55	107	94	1	257	1922
07:00 PM	9	74	22	0	105	7	25	19	0	51	28	142	13	6	189	12	23	16	7	58	403
07:15 PM	10	67	9	0	86	8	26	15	2	51	25	123	8	1	157	11	27	14	1	53	347
07:30 PM	8	75	12	0	95	11	28	15	1	55	27	126	15	0	168	11	39	18	1	69	387

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : University Ave at 101st Ave NE_04112023_0000-2400

Site Code : 7

Start Date : 4/11/2023

Page No : 4

University Ave NE and 101st Ave NE
Blaine, Minnesota

Groups Printed- Cars + - Trucks

	University Ave NE Southbound					101st Ave NE Westbound					University Ave NE Northbound					101st Ave NE Eastbound					Int. Total
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:45 PM	10	53	15	0	78	7	22	15	0	44	14	109	14	0	137	8	15	15	0	38	297
Total	37	269	58	0	364	33	101	64	3	201	94	500	50	7	651	42	104	63	9	218	1434
08:00 PM	10	61	12	0	83	12	17	8	1	38	19	112	19	2	152	11	24	19	4	58	331
08:15 PM	7	70	7	0	84	6	16	12	0	34	34	110	9	0	153	15	22	10	0	47	318
08:30 PM	8	68	6	0	82	6	14	18	0	38	26	85	13	0	124	4	22	15	0	41	285
08:45 PM	6	58	8	0	72	6	14	1	0	21	16	82	10	0	108	14	29	19	0	62	263
Total	31	257	33	0	321	30	61	39	1	131	95	389	51	2	537	44	97	63	4	208	1197
09:00 PM	10	66	13	0	89	13	16	7	0	36	14	72	11	0	97	15	14	17	1	47	269
09:15 PM	4	36	3	0	43	7	12	7	0	26	15	70	11	0	96	9	22	9	0	40	205
09:30 PM	9	37	2	0	48	2	9	4	0	15	11	60	12	0	83	7	15	14	1	37	183
09:45 PM	6	32	7	0	45	5	3	5	0	13	14	63	8	0	85	4	9	6	0	19	162
Total	29	171	25	0	225	27	40	23	0	90	54	265	42	0	361	35	60	46	2	143	819
10:00 PM	9	36	4	0	49	4	4	6	0	14	13	77	10	0	100	5	17	8	0	30	193
10:15 PM	6	25	5	0	36	7	8	2	0	17	19	53	14	0	86	2	7	8	0	17	156
10:30 PM	2	21	3	0	26	2	5	5	0	12	7	65	4	0	76	5	11	5	0	21	135
10:45 PM	4	21	0	0	25	3	4	2	0	9	7	43	8	0	58	7	7	3	0	17	109
Total	21	103	12	0	136	16	21	15	0	52	46	238	36	0	320	19	42	24	0	85	593
11:00 PM	4	23	1	0	28	4	1	2	0	7	10	49	7	0	66	2	10	3	0	15	116
11:15 PM	2	19	2	0	23	0	3	2	0	5	10	36	4	0	50	2	4	4	0	10	88
11:30 PM	3	5	2	0	10	2	2	1	0	5	12	26	5	0	43	3	8	3	0	14	72
11:45 PM	1	7	2	0	10	0	2	3	0	5	8	21	4	0	33	4	5	5	0	14	62
Total	10	54	7	0	71	6	8	8	0	22	40	132	20	0	192	11	27	15	0	53	338
Grand Total	902	8338	805	18	10063	760	1950	1813	18	4541	1766	9927	1186	32	12911	1247	2029	1352	34	4662	32177
Apprch %	9	82.9	8	0.2		16.7	42.9	39.9	0.4		13.7	76.9	9.2	0.2		26.7	43.5	29	0.7		
Total %	2.8	25.9	2.5	0.1	31.3	2.4	6.1	5.6	0.1	14.1	5.5	30.9	3.7	0.1	40.1	3.9	6.3	4.2	0.1	14.5	
Cars +	883	8248	788	10	9929	754	1925	1790	10	4479	1742	9784	1155	16	12697	1229	1981	1333	21	4564	31669
% Cars +	97.9	98.9	97.9	55.6	98.7	99.2	98.7	98.7	55.6	98.6	98.6	98.6	97.4	50	98.3	98.6	97.6	98.6	61.8	97.9	98.4
Trucks	19	90	17	8	134	6	25	23	8	62	24	143	31	16	214	18	48	19	13	98	508
% Trucks	2.1	1.1	2.1	44.4	1.3	0.8	1.3	1.3	44.4	1.4	1.4	1.4	2.6	50	1.7	1.4	2.4	1.4	38.2	2.1	1.6

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

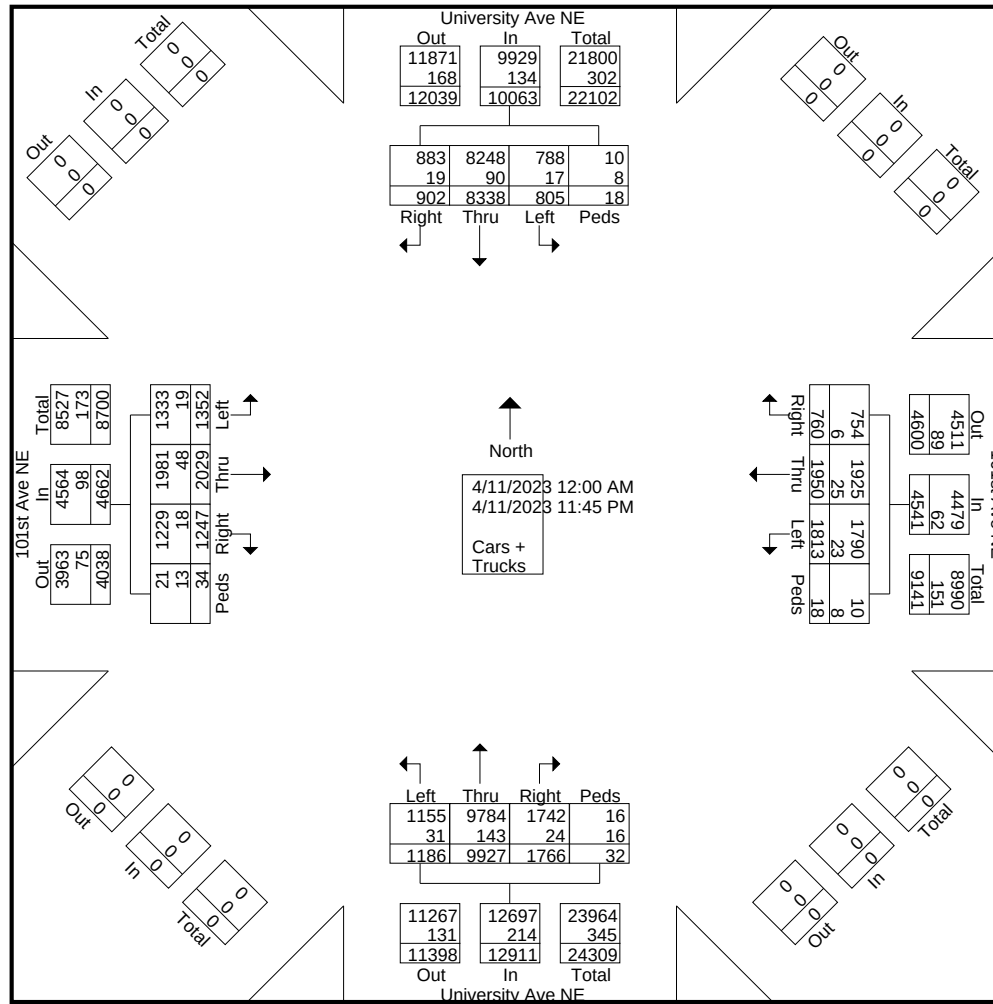
File Name : University Ave at 101st Ave NE_04112023_0000-2400

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University Ave NE and 101st Ave NE
Blaine, Minnesota



Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : University Ave at 101st Ave NE_04112023_0000-2400

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University Ave NE and 101st Ave NE
Blaine, Minnesota

	University Ave NE Southbound					101st Ave NE Westbound					University Ave NE Northbound					101st Ave NE Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:00 AM to 12:00 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:00 AM																					
07:00 AM	13	210	9	0	232	9	44	55	0	108	9	94	12	0	115	23	16	7	0	46	501
07:15 AM	14	252	10	0	276	9	42	64	0	115	15	75	11	0	101	23	24	11	0	58	550
07:30 AM	24	267	15	0	306	10	42	62	0	114	17	79	12	0	108	33	46	16	0	95	623
07:45 AM	17	237	10	0	264	7	35	53	1	96	13	97	15	1	126	37	44	17	0	98	584
Total Volume	68	966	44	0	1078	35	163	234	1	433	54	345	50	1	450	116	130	51	0	297	2258
% App. Total	6.3	89.6	4.1	0		8.1	37.6	54	0.2		12	76.7	11.1	0.2		39.1	43.8	17.2	0		
PHF	.708	.904	.733	.000	.881	.875	.926	.914	.250	.941	.794	.889	.833	.250	.893	.784	.707	.750	.000	.758	.906

Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

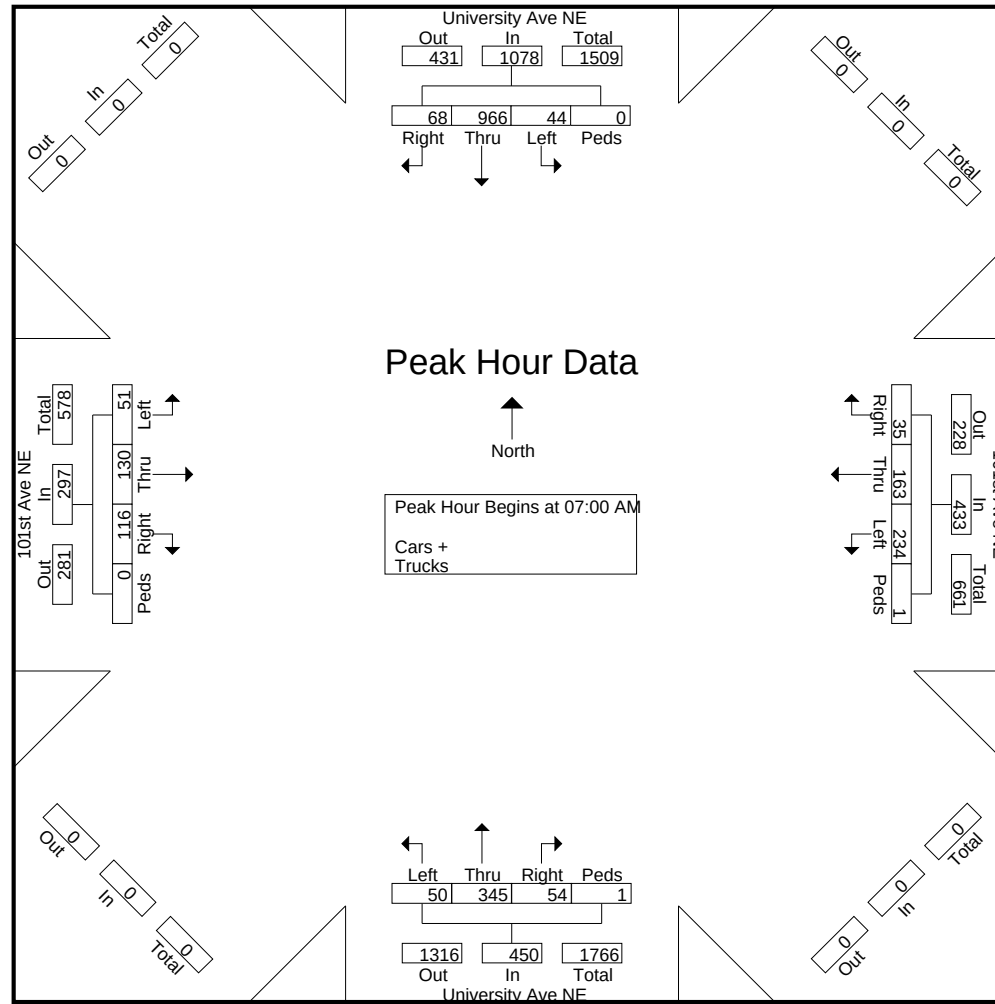
File Name : University Ave at 101st Ave NE_04112023_0000-2400

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University Ave NE and 101st Ave NE
Blaine, Minnesota



Bolton & Menk, Inc.

12224 Nicollet Avenue
Burnsville, MN 55337

File Name : University Ave at 101st Ave NE_04112023_0000-2400

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University Ave NE and 101st Ave NE
Blaine, Minnesota

	University Ave NE Southbound					101st Ave NE Westbound					University Ave NE Northbound					101st Ave NE Eastbound					
Start Time	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Int. Total
Peak Hour Analysis From 12:15 PM to 11:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:00 PM																					
04:00 PM	16	140	21	0	177	20	48	36	0	104	58	363	39	0	460	26	46	24	0	96	837
04:15 PM	15	132	11	0	158	23	53	28	0	104	50	319	34	0	403	24	62	39	1	126	791
04:30 PM	24	143	23	0	190	21	35	29	0	85	54	373	26	1	454	21	32	33	0	86	815
04:45 PM	18	103	27	0	148	19	43	29	0	91	55	359	44	1	459	16	58	36	0	110	808
Total Volume	73	518	82	0	673	83	179	122	0	384	217	1414	143	2	1776	87	198	132	1	418	3251
% App. Total	10.8	77	12.2	0		21.6	46.6	31.8	0		12.2	79.6	8.1	0.1		20.8	47.4	31.6	0.2		
PHF	.760	.906	.759	.000	.886	.902	.844	.847	.000	.923	.935	.948	.813	.500	.965	.837	.798	.846	.250	.829	.971

12224 Nicollet Avenue
Burnsville, MN 55337

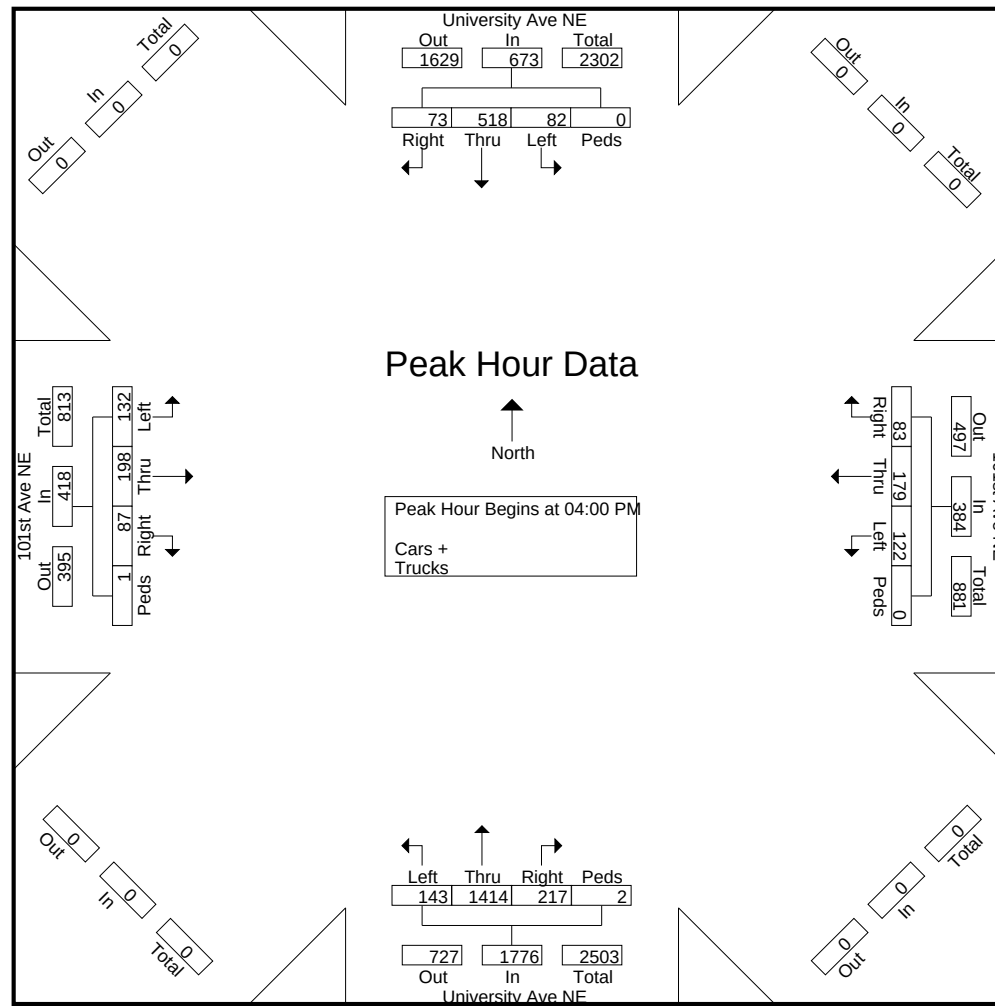
File Name : University Ave at 101st Ave NE_04112023_0000-2400

Site Code : 7

Start Date : 4/11/2023

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University Ave NE and 101st Ave NE
Blaine, Minnesota



Intersection Safety Screening

Intersection: 99th Ave NE at 5th St NE

Statewide Averages based on 2016-2020 crashes

Crashes by Crash Severity		Intersection Characteristics	
Fatal (K)	0	Entering Volume	1,275
Serious Injury (A)	0	Environment	Urban
Minor Injury (B)	0	Lighting	Lit
Possible Injury (C)	0	Traffic Control	Thru-Stop
Property Damage (PDO)	1		
Total Crashes	1		

Annual crash cost = \$2,600

Statewide comparison = Urban, Thru/STOP

Total Crash Rate		Fatal & Serious Injury Crash Rate	
Observed	0.429	Observed	0.000
Statewide Average	0.128	Statewide Average	0.311
Critical Rate	0.950	Critical Rate	26.460
Critical Index	0.45	Critical Index	0.00

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.43 per MEV; this is 55% below the critical rate. Based on similar statewide intersections, an additional 2 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: 99th Ave NE at 6th St NE

Statewide Averages based on 2016-2020 crashes

Crashes by Crash Severity	
Fatal (K)	0
Serious Injury (A)	0
Minor Injury (B)	0
Possible Injury (C)	0
Property Damage (PDO)	1
Total Crashes	1

Intersection Characteristics	
Entering Volume	1,275
Environment	Urban
Lighting	Lit
Traffic Control	Thru-Stop

Annual crash cost = \$2,600

Statewide comparison = Urban, Thru/STOP

Total Crash Rate	
Observed	0.429
Statewide Average	0.128
Critical Rate	0.950
Critical Index	0.45

Fatal & Serious Injury Crash Rate	
Observed	0.000
Statewide Average	0.311
Critical Rate	26.460
Critical Index	0.00

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.43 per MEV; this is 55% below the critical rate. Based on similar statewide intersections, an additional 2 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: 97th Ave NE at University Ave Frontage Rd

Statewide Averages based on 2016-2020 crashes

Crashes by Crash Severity	
Fatal (K)	0
Serious Injury (A)	0
Minor Injury (B)	0
Possible Injury (C)	1
Property Damage (PDO)	0
Total Crashes	1

Intersection Characteristics	
Entering Volume	541
Environment	Urban
Lighting	Lit
Traffic Control	Thru-Stop

Annual crash cost = \$24,000

Statewide comparison = Urban, Thru/STOP

Total Crash Rate	
Observed	1.012
Statewide Average	0.128
Critical Rate	1.560
Critical Index	0.65

Fatal & Serious Injury Crash Rate	
Observed	0.000
Statewide Average	0.311
Critical Rate	58.090
Critical Index	0.00

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 1.01 per MEV; this is 35% below the critical rate. Based on similar statewide intersections, an additional 1 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: 99th Ave NE at 101st Ave NE

Statewide Averages based on 2016-2020 crashes

Crashes by Crash Severity	
Fatal (K)	0
Serious Injury (A)	0
Minor Injury (B)	0
Possible Injury (C)	1
Property Damage (PDO)	5
Total Crashes	6

Intersection Characteristics	
Entering Volume	8,985
Environment	Urban
Lighting	Lit
Traffic Control	Thru-Stop

Annual crash cost = \$37,000

Statewide comparison = Urban, Thru/STOP

Total Crash Rate	
Observed	0.366
Statewide Average	0.128
Critical Rate	0.390
Critical Index	0.94

Fatal & Serious Injury Crash Rate	
Observed	0.000
Statewide Average	0.311
Critical Rate	5.120
Critical Index	0.00

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.37 per MEV; this is 6% below the critical rate. Based on similar statewide intersections, an additional 1 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: 99th Ave NE at University Ave Frontage Rd

Statewide Averages based on 2016-2020 crashes

Crashes by Crash Severity		Intersection Characteristics	
Fatal (K)	0	Entering Volume	576
Serious Injury (A)	0	Environment	Urban
Minor Injury (B)	0	Lighting	Lit
Possible Injury (C)	1	Traffic Control	Thru-Stop
Property Damage (PDO)	1		
Total Crashes	2		

Annual crash cost = \$26,600

Statewide comparison = Urban, Thru/STOP

Total Crash Rate		Fatal & Serious Injury Crash Rate	
Observed	1.901	Observed	0.000
Statewide Average	0.128	Statewide Average	0.311
Critical Rate	1.500	Critical Rate	54.790
Critical Index	1.27	Critical Index	0.00

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 1.90 per MEV; this is 1.3 times the critical rate. If crashes were reduced by 1 over five years, this intersection would perform within normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: Clover Leaf Pkwy at 99th Ave NE

Statewide Averages based on 2016-2020 crashes

Crashes by Crash Severity	
Fatal (K)	0
Serious Injury (A)	0
Minor Injury (B)	0
Possible Injury (C)	1
Property Damage (PDO)	10
Total Crashes	11

Intersection Characteristics	
Entering Volume	9,221
Environment	Urban
Lighting	Lit
Traffic Control	Signal

Annual crash cost = \$50,000

Statewide comparison = Signal, Low Volume (<=20K)

Total Crash Rate	
Observed	0.653
Statewide Average	0.508
Critical Rate	0.990
Critical Index	0.66

Fatal & Serious Injury Crash Rate	
Observed	0.000
Statewide Average	0.690
Critical Rate	6.250
Critical Index	0.00

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.65 per MEV; this is 34% below the critical rate. Based on similar statewide intersections, an additional 6 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 0.00 per 100 MEV; this is 100% below the critical rate. The intersection operates within the normal range.

Intersection Safety Screening

Intersection: University Ave NE at 101st Ave NE

Statewide Averages based on 2016-2020 crashes

Crashes by Crash Severity	
Fatal (K)	0
Serious Injury (A)	1
Minor Injury (B)	4
Possible Injury (C)	8
Property Damage (PDO)	21
Total Crashes	34

Intersection Characteristics	
Entering Volume	30,250
Environment	Urban
Lighting	Lit
Traffic Control	Signal

Annual crash cost = \$580,600

Statewide comparison = Signal, High Volume (>20K)

Total Crash Rate	
Observed	0.615
Statewide Average	0.592
Critical Rate	0.870
Critical Index	0.71

Fatal & Serious Injury Crash Rate	
Observed	1.809
Statewide Average	0.824
Critical Rate	3.290
Critical Index	0.55

The observed crash rate is the number of crashes per million entering vehicles (MEV). The critical rate is a statistical comparison based on similar intersections statewide. An observed crash rate greater than the critical rate indicates that the intersection operates outside the expected, normal range. The critical index reports the magnitude of this difference (i.e. observed crash rate ÷ critical crash rate).

The observed total crash rate for this period is 0.62 per MEV; this is 29% below the critical rate. Based on similar statewide intersections, an additional 15 crashes over the five years would indicate this intersection operates outside the normal range.

The observed fatal and serious injury crash rate for this period is 1.81 per 100 MEV; this is 45% below the critical rate. The intersection operates within the normal range.



Real People. Real Solutions.

SIGNAL WARRANTS ANALYSIS FOR

**99th Avenue at 101st Avenue
Blaine, Minnesota
2023- Existing Conditions**

LOCATION: 99th Ave at 101st Ave
COUNTY: Anoka

DATE: 4/27/2023

OPERATOR: CW

Speed	Approach Description	Lanes
45	Major App1: SB 101st Avenue	2
45	Major App3: NB 99th Avenue	2
30	Minor App2: EB 99th Avenue	1
	Minor App4:	

0.70 FACTOR USED?

YES

POPULATION < 10,000?

No

N/A

No

THRESHOLDS 1A/1B:

420/630

105/52

105/52

Hour	MAJOR APP. 1	MAJOR APP. 3	TOTAL 1+3	MAJOR 1A/1B	MINOR APP. 2	MINOR 2 1A/1B	MINOR APP. 4	MINOR 4 (	MET SAME 1A/1B
0:00 - 1:00	23	15	38	/	2	/	0	/	/
1:00 - 2:00	27	16	43	/	0	/	0	/	/
2:00 - 3:00	19	5	24	/	0	/	0	/	/
3:00 - 4:00	7	17	24	/	0	/	0	/	/
4:00 - 5:00	16	56	72	/	7	/	0	/	/
5:00 - 6:00	38	135	173	/	15	/	0	/	/
6:00 - 7:00	107	256	363	/	22	/	0	/	/
7:00 - 8:00	184	344	528	X/	32	/	0	/	/
8:00 - 9:00	196	250	446	X/	17	/	0	/	/
9:00 - 10:00	208	249	457	X/	43	/	0	/	/
10:00 - 11:00	171	206	377	/	16	/	0	/	/
11:00 - 12:00	196	208	404	/	16	/	0	/	/
12:00 - 13:00	235	225	460	X/	16	/	0	/	/
13:00 - 14:00	203	224	427	X/	20	/	0	/	/
14:00 - 15:00	301	225	526	X/	22	/	0	/	/
15:00 - 16:00	477	295	772	X/X	27	/	0	/	/
16:00 - 17:00	469	300	769	X/X	60	/X	0	/	/X
17:00 - 18:00	432	278	710	X/X	43	/	0	/	/
18:00 - 19:00	285	265	550	X/	20	/	0	/	/
19:00 - 20:00	249	193	442	X/	16	/	0	/	/
20:00 - 21:00	208	130	338	/	9	/	0	/	/
21:00 - 22:00	138	97	235	/	11	/	0	/	/
22:00 - 23:00	98	51	149	/	3	/	0	/	/
23:00 - 24:00	71	23	94	/	2	/	0	/	/

Met (Hr) Required (Hr)

Warrant 1A	0	8	Not satisfied
Warrant 1B	1	8	Not satisfied
Warrant 2	0	4	Not satisfied
Warrant 3	0	1	Not satisfied
Warrant 7	2	8	Not satisfied

LOCATION: 99th Ave at 101st Ave

COUNTY: Anoka

REF. POINT:

DATE: 4/27/2023

OPERATOR: CW

Speed	Approach Description	Lanes
45	Major App1: SB 101st Avenue	2
45	Major App3: NB 99th Avenue	2
30	Minor App2: EB 99th Avenue	1
	Minor App4:	

0.70 FACTOR USED? YES

POPULATION < 10,000? No

EXISTING SIGNAL ? No

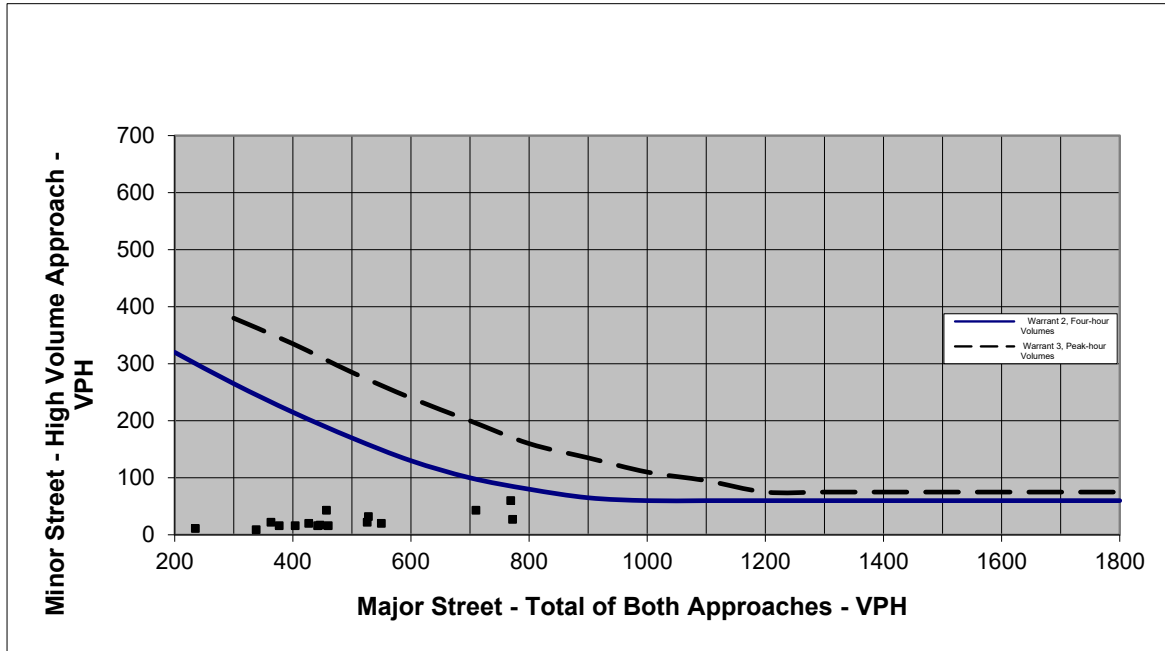


Figure 1. Four Hour and Peak Hour Warrant Analysis

Note: For data points outside the graph range, check the minor street volume against the lower thresholds

Warrant Criteria			Actual Hourly Count	
Major	Warrant 2, F	Warrant 3, Pe	Major	Actual Hourly Count
200	320		38	2
300	265	380	43	0
400	215	335	24	0
500	170	285	24	0
600	130	240	72	7
700	100	200	173	15
800	80	160	363	22
900	65	135	528	32
1000	60	110	446	17
1100	60	95	457	43
1200	60	75	377	16
1300	60	75	404	16
1400	60	75	460	16
1500	60	75	427	20
1600	60	75	526	22
1700	60	75	772	27
1800	60	75	769	60
			710	43
			550	20
			442	16
			338	9
			235	11
			149	3
			94	2



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SIGNAL WARRANTS ANALYSIS FOR

**99th Avenue at 101st Avenue
Blaine, Minnesota
2023- Build Conditions**

LOCATION: 99th Ave at 101st Ave
COUNTY: Anoka

DATE: 4/27/2023

OPERATOR: CW

Speed	Approach Description	Lanes
45	Major App1: SB 101st Avenue	2
45	Major App3: NB 99th Avenue	2
30	Minor App2: EB 99th Avenue	1
	Minor App4:	

0.70 FACTOR USED?

YES

POPULATION < 10,000?

No

N/A

No

THRESHOLDS 1A/1B:

420/630

105/52

Hour	MAJOR APP. 1	MAJOR APP. 3	TOTAL 1+3	MAJOR 1A/1B	MINOR APP. 2	MINOR 2 1A/1B	MINOR APP. 4	MINOR 4 (	MET SAME 1A/1B
0:00 - 1:00	38	24	62	/	4	/	0		/
1:00 - 2:00	43	24	67	/	0	/	0		/
2:00 - 3:00	28	7	35	/	0	/	0		/
3:00 - 4:00	10	27	37	/	0	/	0		/
4:00 - 5:00	28	83	111	/	23	/	0		/
5:00 - 6:00	61	202	263	/	52	/X	0		/
6:00 - 7:00	192	391	583	X/	73	/X	0		/
7:00 - 8:00	352	527	879	X/X	111	X/X	0		X/X
8:00 - 9:00	396	388	784	X/X	59	/X	0		/X
9:00 - 10:00	455	406	861	X/X	143	X/X	0		X/X
10:00 - 11:00	296	313	609	X/	52	/X	0		/
11:00 - 12:00	319	324	643	X/X	53	/X	0		/X
12:00 - 13:00	390	348	738	X/X	51	/	0		/
13:00 - 14:00	338	344	682	X/X	65	/X	0		/X
14:00 - 15:00	486	345	831	X/X	73	/X	0		/X
15:00 - 16:00	858	473	1331	X/X	90	/X	0		/X
16:00 - 17:00	791	461	1252	X/X	205	X/X	0		X/X
17:00 - 18:00	700	430	1130	X/X	140	X/X	0		X/X
18:00 - 19:00	464	407	871	X/X	67	/X	0		/X
19:00 - 20:00	412	295	707	X/X	52	/X	0		/X
20:00 - 21:00	343	201	544	X/	28	/	0		/
21:00 - 22:00	226	150	376	/	35	/	0		/
22:00 - 23:00	157	79	236	/	10	/	0		/
23:00 - 24:00	113	36	149	/	7	/	0		/

Met (Hr) Required (Hr)

Warrant 1A	4	8	Not satisfied
Warrant 1B	11	8	Satisfied
Warrant 2	5	4	Satisfied
Warrant 3	3	1	Satisfied
Warrant 7	14	8	Satisfied, check accident record

LOCATION: 99th Ave at 101st Ave
COUNTY: Anoka

REF. POINT:

DATE: 4/27/2023

OPERATOR: CW

Speed	Approach Description	Lanes
45	Major App1: SB 101st Avenue	2
45	Major App3: NB 99th Avenue	2
30	Minor App2: EB 99th Avenue	1
	Minor App4:	

0.70 FACTOR USED? YES
POPULATION < 10,000? No
EXISTING SIGNAL ? No

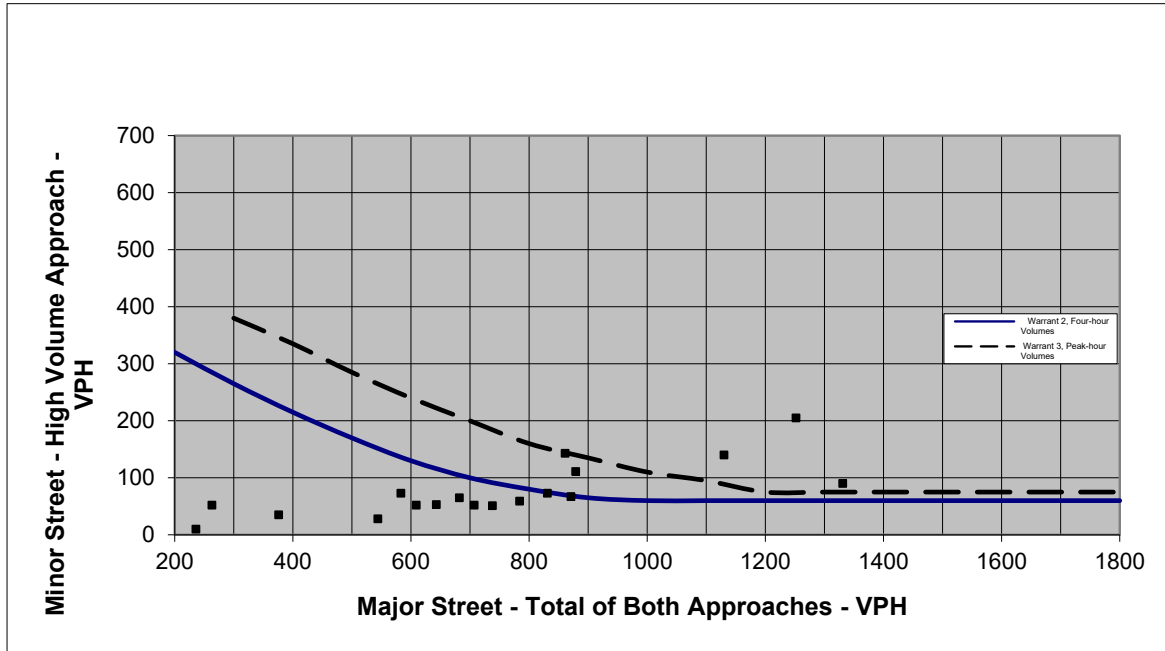


Figure 1. Four Hour and Peak Hour Warrant Analysis

Note: For data points outside the graph range, check the minor street volume against the lower thresholds

Warrant Criteria			Actual Hourly Count	
Major	Warrant 2, F	Warrant 3, Pe	Major	Actual Hourly Count
200	320		62	4
300	265	380	67	0
400	215	335	35	0
500	170	285	37	0
600	130	240	111	23
700	100	200	263	52
800	80	160	583	73
900	65	135	879	111
1000	60	110	784	59
1100	60	95	861	143
1200	60	75	609	52
1300	60	75	643	53
1400	60	75	738	51
1500	60	75	682	65
1600	60	75	831	73
1700	60	75	1331	90
1800	60	75	1252	205
			1130	140
			871	67
			707	52
			544	28
			376	35
			236	10
			149	7



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SIGNAL WARRANTS ANALYSIS FOR

**99th Avenue at Clover Leaf Parkway
Blaine, Minnesota
2023- Existing Conditions**

LOCATION: 99th Ave NE at Clover Leaf Pkwy

COUNTY: Anoka

DATE: 4/27/2023

OPERATOR: CW

Speed	Approach Description	Lanes
45	Major App1: EB 99th Avenue	2
45	Major App3: WB 99th Avenue	2
30	Minor App2: NB Clover Leaf Parkway	1
30	Minor App4: SB Clover Leaf Parkway	1

0.70 FACTOR USED?

YES

POPULATION < 10,000?

No

N/A

No

THRESHOLDS 1A/1B:

420/630

105/52

105/52

Hour	MAJOR APP. 1	MAJOR APP. 3	TOTAL 1+3	MAJOR 1A/1B	MINOR APP. 2	MINOR 2 1A/1B	MINOR APP. 4	MINOR 4 (	MET SAME 1A/1B
0:00 - 1:00	25	11	36	/	5	/	0	/	/
1:00 - 2:00	25	12	37	/	4	/	1	/	/
2:00 - 3:00	20	4	24	/	1	/	1	/	/
3:00 - 4:00	7	17	24	/	2	/	0	/	/
4:00 - 5:00	15	37	52	/	17	/	7	/	/
5:00 - 6:00	44	91	135	/	37	/	9	/	/
6:00 - 7:00	102	139	241	/	94	/X	17	/	/
7:00 - 8:00	156	209	365	/	114	X/X	48	/	/
8:00 - 9:00	151	153	304	/	93	/X	34	/	/
9:00 - 10:00	171	172	343	/	87	/X	27	/	/
10:00 - 11:00	161	151	312	/	71	/X	16	/	/
11:00 - 12:00	194	165	359	/	56	/X	25	/	/
12:00 - 13:00	228	189	417	/	70	/X	22	/	/
13:00 - 14:00	206	166	372	/	82	/X	22	/	/
14:00 - 15:00	297	175	472	X/	77	/X	20	/	/
15:00 - 16:00	428	238	666	X/X	89	/X	28	/	/X
16:00 - 17:00	449	269	718	X/X	100	/X	31	/	/X
17:00 - 18:00	454	201	655	X/X	104	/X	34	/	/X
18:00 - 19:00	278	203	481	X/	85	/X	32	/	/
19:00 - 20:00	242	150	392	/	60	/X	20	/	/
20:00 - 21:00	200	117	317	/	40	/	12	/	/
21:00 - 22:00	137	93	230	/	27	/	7	/	/
22:00 - 23:00	99	48	147	/	15	/	4	/	/
23:00 - 24:00	70	17	87	/	11	/	1	/	/

Met (Hr) Required (Hr)

Warrant 1A	0	8	Not satisfied
Warrant 1B	3	8	Not satisfied
Warrant 2	1	4	Not satisfied
Warrant 3	0	1	Not satisfied
Warrant 7	6	8	Not satisfied

LOCATION: 99th Ave NE at Clover Leaf Pkwy

COUNTY: Anoka

REF. POINT:

DATE: 4/27/2023

OPERATOR: CW

0.70 FACTOR USED? YES

POPULATION < 10,000? No

EXISTING SIGNAL ? No

Speed	Approach Description	Lanes
45	Major App1: EB 99th Avenue	2
45	Major App3: WB 99th Avenue	2
30	Minor App2: NB Clover Leaf Parkway	1
30	Minor App4: SB Clover Leaf Parkway	1

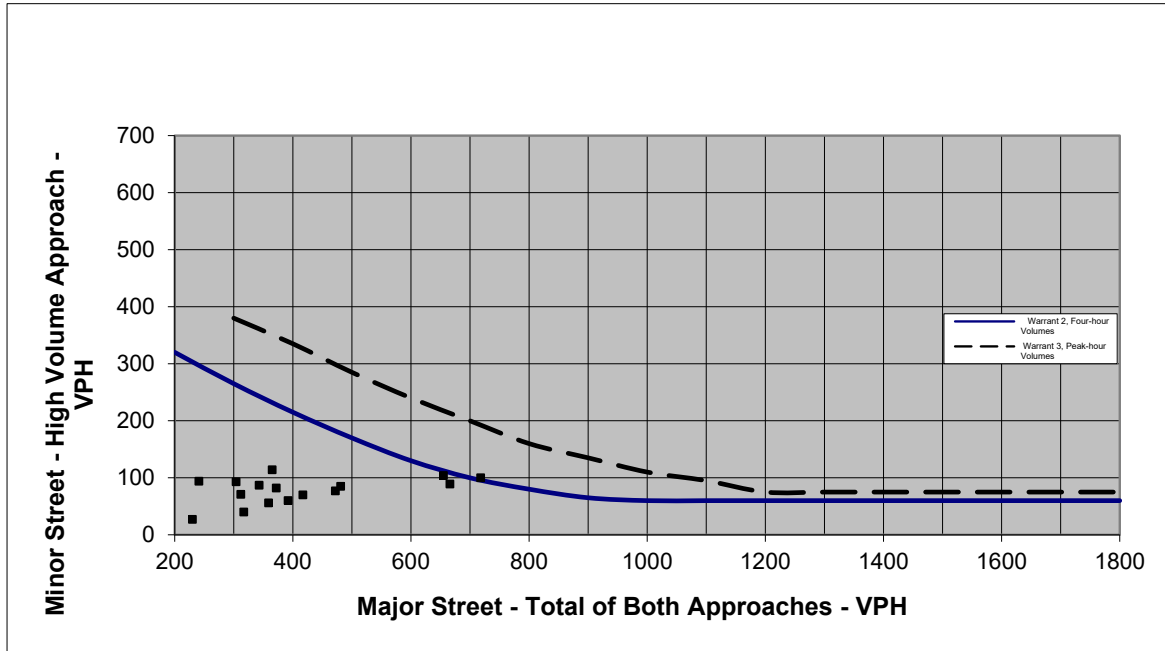


Figure 1. Four Hour and Peak Hour Warrant Analysis

Note: For data points outside the graph range, check the minor street volume against the lower thresholds

Warrant Criteria			Actual Hourly Count	
Major	Warrant 2, F	Warrant 3, Pe	Major	Actual Hourly Count
200	320		36	5
300	265	380	37	4
400	215	335	24	1
500	170	285	24	2
600	130	240	52	17
700	100	200	135	37
800	80	160	241	94
900	65	135	365	114
1000	60	110	304	93
1100	60	95	343	87
1200	60	75	312	71
1300	60	75	359	56
1400	60	75	417	70
1500	60	75	372	82
1600	60	75	472	77
1700	60	75	666	89
1800	60	75	718	100
			655	104
			481	85
			392	60
			317	40
			230	27
			147	15
			87	11



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SIGNAL WARRANTS ANALYSIS FOR

**99th Avenue at Clover Leaf Parkway
Blaine, Minnesota
2023- Build Conditions**

LOCATION: 99th Ave NE at Clover Leaf Pkwy

COUNTY: Anoka

DATE: 4/27/2023

OPERATOR: CW

Speed	Approach Description	Lanes
45	Major App1: EB 99th Avenue	2
45	Major App3: WB 99th Avenue	2
30	Minor App2: NB Clover Leaf Parkway	1
30	Minor App4: SB Clover Leaf Parkway	1

0.70 FACTOR USED?

YES

POPULATION < 10,000?

No

N/A

No

THRESHOLDS 1A/1B:

420/630

105/52

105/52

Hour	MAJOR APP. 1	MAJOR APP. 3	TOTAL 1+3	MAJOR 1A/1B	MINOR APP. 2	MINOR 2 1A/1B	MINOR APP. 4	MINOR 4 (	MET SAME 1A/1B
0:00 - 1:00	25	11	36	/	6	/	0	/	/
1:00 - 2:00	26	12	38	/	4	/	1	/	/
2:00 - 3:00	20	4	24	/	1	/	1	/	/
3:00 - 4:00	7	17	24	/	2	/	0	/	/
4:00 - 5:00	15	37	52	/	20	/	7	/	/
5:00 - 6:00	45	91	136	/	40	/	7	/	/
6:00 - 7:00	104	139	243	/	99	/X	15	/	/
7:00 - 8:00	158	208	366	/	123	X/X	42	/	/
8:00 - 9:00	154	153	307	/	105	X/X	30	/	/
9:00 - 10:00	173	171	344	/	99	/X	23	/	/
10:00 - 11:00	163	150	313	/	76	/X	14	/	/
11:00 - 12:00	196	164	360	/	63	/X	22	/	/
12:00 - 13:00	231	187	418	/	80	/X	20	/	/
13:00 - 14:00	208	165	373	/	92	/X	19	/	/
14:00 - 15:00	301	173	474	X/	87	/X	18	/	/
15:00 - 16:00	435	236	671	X/X	101	/X	25	/	/X
16:00 - 17:00	453	265	718	X/X	119	X/X	28	/	X/X
17:00 - 18:00	458	198	656	X/X	115	X/X	29	/	X/X
18:00 - 19:00	281	201	482	X/	93	/X	29	/	/
19:00 - 20:00	245	149	394	/	69	/X	18	/	/
20:00 - 21:00	202	115	317	/	46	/	10	/	/
21:00 - 22:00	138	92	230	/	31	/	6	/	/
22:00 - 23:00	99	47	146	/	17	/	3	/	/
23:00 - 24:00	71	17	88	/	13	/	1	/	/

Met (Hr) Required (Hr)

Warrant 1A	2	8	Not satisfied
Warrant 1B	3	8	Not satisfied
Warrant 2	2	4	Not satisfied
Warrant 3	0	1	Not satisfied
Warrant 7	8	8	Satisfied, check accident record

LOCATION: 99th Ave NE at Clover Leaf Pkwy

COUNTY: Anoka

REF. POINT:

DATE: 4/27/2023

OPERATOR: CW

0.70 FACTOR USED? YES

POPULATION < 10,000? No

EXISTING SIGNAL ? No

Speed	Approach Description	Lanes
45	Major App1: EB 99th Avenue	2
45	Major App3: WB 99th Avenue	2
30	Minor App2: NB Clover Leaf Parkway	1
30	Minor App4: SB Clover Leaf Parkway	1

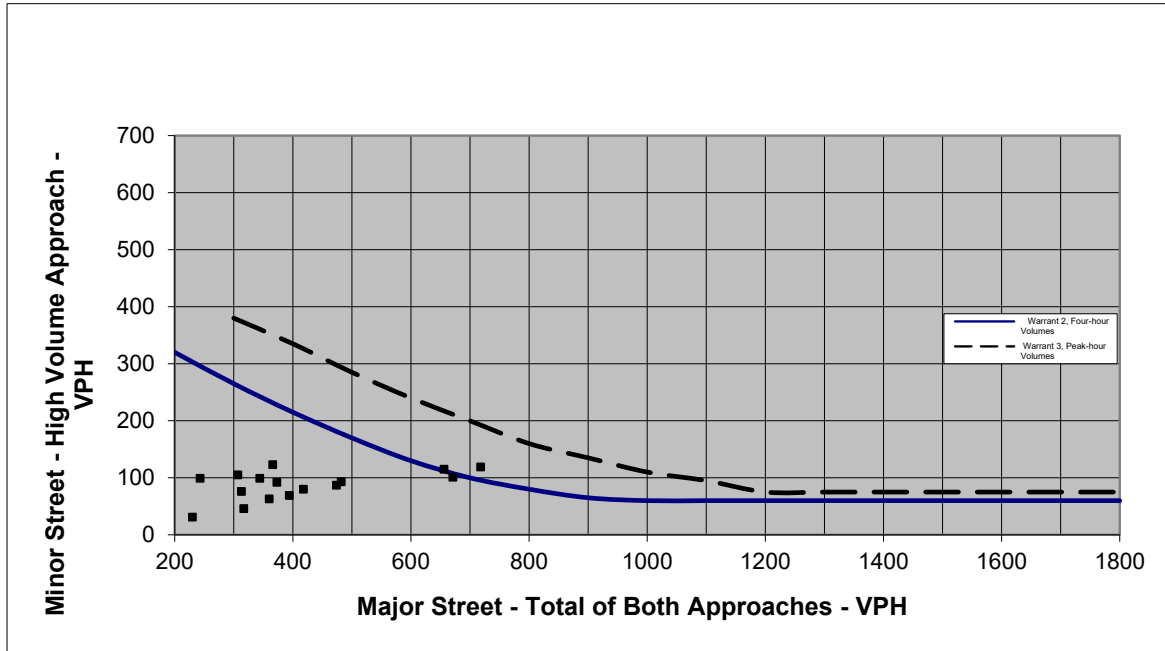


Figure 1. Four Hour and Peak Hour Warrant Analysis

Note: For data points outside the graph range, check the minor street volume against the lower thresholds

Warrant Criteria			Actual Hourly Count	
Major	Warrant 2, F	Warrant 3, Pe	Major	Actual Hourly Count
200	320		36	6
300	265	380	38	4
400	215	335	24	1
500	170	285	24	2
600	130	240	52	20
700	100	200	136	40
800	80	160	243	99
900	65	135	366	123
1000	60	110	307	105
1100	60	95	344	99
1200	60	75	313	76
1300	60	75	360	63
1400	60	75	418	80
1500	60	75	373	92
1600	60	75	474	87
1700	60	75	671	101
1800	60	75	718	119
			656	115
			482	93
			394	69
			317	46
			230	31
			146	17
			88	13



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ALL WAY STOP WARRANT ANALYSIS FOR 99th Avenue at 101st Avenue Blaine, Minnesota 2023- Existing Conditions

LOCATION: 99th Ave at 101st Ave

COUNTY: Anoka

REF. POINT:

DATE: 4/27/2023

OPERATOR: CW

Speed	Approach Description	Lanes
45	Major App1: SB 101st Avenue	2
45	Major App3: NB 99th Avenue	2
30	Minor App2: EB 99th Avenue	1
	Minor App4:	

0.70 FACTOR USED?

Yes

HOUR	210				140		WARRANT MET
	MAJOR	MAJOR	MINOR	MINOR	MAJOR TOTAL Σ (APP. 1 & APP. 3)	MINOR TOTAL APP. 2 + APP. 4	
0:00 - 1:00	23	15	3	0	38	3	/
1:00 - 2:00	27	16	0	0	43	0	/
2:00 - 3:00	19	5	0	0	24	0	/
3:00 - 4:00	7	17	0	0	24	0	/
4:00 - 5:00	16	56	7	0	72	7	/
5:00 - 6:00	38	135	18	0	173	18	/
6:00 - 7:00	107	256	28	0	363	28	X/
7:00 - 8:00	184	344	37	0	528	37	X/
8:00 - 9:00	196	250	21	0	446	21	X/
9:00 - 10:00	208	249	59	0	457	59	X/
10:00 - 11:00	171	206	21	0	377	21	X/
11:00 - 12:00	196	208	21	0	404	21	X/
12:00 - 13:00	235	225	22	0	460	22	X/
13:00 - 14:00	203	224	30	0	427	30	X/
14:00 - 15:00	301	225	28	0	526	28	X/
15:00 - 16:00	477	295	36	0	772	36	X/
16:00 - 17:00	469	300	74	0	769	74	X/
17:00 - 18:00	432	278	62	0	710	62	X/
18:00 - 19:00	285	265	24	0	550	24	X/
19:00 - 20:00	249	193	23	0	442	23	X/
20:00 - 21:00	208	130	11	0	338	11	X/
21:00 - 22:00	138	97	14	0	235	14	X/
22:00 - 23:00	98	51	4	0	149	4	/
23:00 - 24:00	71	23	3	0	94	3	/

Allway Stop Warrant: Met (Hr) 0 Required (Hr) 8 Not satisfied

REMARKS: _____



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ALL WAY STOP WARRANT ANALYSIS FOR 99th Avenue at 101st Avenue Blaine, Minnesota 2023- Build Conditions

LOCATION: 99th Ave at 101st Ave

COUNTY: Anoka

REF. POINT:

DATE: 4/27/2023

OPERATOR: CW

Speed	Approach Description	Lanes
45	Major App1: SB 101st Avenue	2
45	Major App3: NB 99th Avenue	2
30	Minor App2: EB 99th Avenue	1
	Minor App4:	

0.70 FACTOR USED? Yes

HOUR	210				140		WARRANT MET
	MAJOR	MAJOR	MINOR	MINOR	MAJOR TOTAL Σ (APP. 1 & APP. 3)	MINOR TOTAL APP. 2 + APP. 4	
0:00 - 1:00	38	24	8	0	62	8	/
1:00 - 2:00	43	24	0	0	67	0	/
2:00 - 3:00	28	7	0	0	35	0	/
3:00 - 4:00	10	27	0	0	37	0	/
4:00 - 5:00	28	83	24	0	111	24	/
5:00 - 6:00	61	202	60	0	263	60	X/
6:00 - 7:00	192	391	91	0	583	91	X/
7:00 - 8:00	352	527	125	0	879	125	X/
8:00 - 9:00	396	388	70	0	784	70	X/
9:00 - 10:00	455	406	188	0	861	188	X/X
10:00 - 11:00	296	313	67	0	609	67	X/
11:00 - 12:00	319	324	67	0	643	67	X/
12:00 - 13:00	390	348	69	0	738	69	X/
13:00 - 14:00	338	344	93	0	682	93	X/
14:00 - 15:00	486	345	91	0	831	91	X/
15:00 - 16:00	858	473	115	0	1331	115	X/
16:00 - 17:00	791	461	244	0	1252	244	X/X
17:00 - 18:00	700	430	194	0	1130	194	X/X
18:00 - 19:00	464	407	79	0	871	79	X/
19:00 - 20:00	412	295	72	0	707	72	X/
20:00 - 21:00	343	201	35	0	544	35	X/
21:00 - 22:00	226	150	45	0	376	45	X/
22:00 - 23:00	157	79	13	0	236	13	X/
23:00 - 24:00	113	36	10	0	149	10	/

Allway Stop Warrant: Met (Hr) 3 Required (Hr) 8 Not satisfied

REMARKS: _____



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ALL WAY STOP WARRANT ANALYSIS FOR 99th Avenue at Clover Leaf Parkway Blaine, Minnesota 2023- Existing Conditions

LOCATION: 99th Ave NE at Clover Leaf Pkwy

COUNTY: Anoka

REF. POINT:

DATE: 4/27/2023

OPERATOR: CW

0.70 FACTOR USED?

Yes

Speed	Approach Description	Lanes
45	Major App1: EB 99th Avenue	2
45	Major App3: WB 99th Avenue	2
30	Minor App2: NB Clover Leaf Parkway	1
30	Minor App4: SB Clover Leaf Parkway	1

HOUR	210				140		WARRANT MET
	MAJOR	MAJOR	MINOR	MINOR	MAJOR TOTAL Σ (APP. 1 & APP. 3)	MINOR TOTAL APP. 2 + APP. 4	
0:00 - 1:00	25	11	6	0	36	6	/
1:00 - 2:00	25	12	4	1	37	5	/
2:00 - 3:00	20	4	1	1	24	2	/
3:00 - 4:00	7	17	2	0	24	2	/
4:00 - 5:00	15	37	20	11	52	31	/
5:00 - 6:00	44	91	40	14	135	54	/
6:00 - 7:00	102	139	98	29	241	127	X/
7:00 - 8:00	156	209	120	69	365	189	X/X
8:00 - 9:00	151	153	102	46	304	148	X/X
9:00 - 10:00	171	172	98	35	343	133	X/
10:00 - 11:00	161	151	78	20	312	98	X/
11:00 - 12:00	194	165	64	35	359	99	X/
12:00 - 13:00	228	189	80	28	417	108	X/
13:00 - 14:00	206	166	90	29	372	119	X/
14:00 - 15:00	297	175	84	26	472	110	X/
15:00 - 16:00	428	238	100	33	666	133	X/
16:00 - 17:00	449	269	111	42	718	153	X/X
17:00 - 18:00	454	201	114	46	655	160	X/X
18:00 - 19:00	278	203	91	42	481	133	X/
19:00 - 20:00	242	150	66	26	392	92	X/
20:00 - 21:00	200	117	45	15	317	60	X/
21:00 - 22:00	137	93	31	10	230	41	X/
22:00 - 23:00	99	48	16	4	147	20	/
23:00 - 24:00	70	17	11	1	87	12	/

Allway Stop Warrant: Met (Hr) 4 Required (Hr) 8 Not satisfied

REMARKS: _____



Real People. Real Solutions.

ALL WAY STOP WARRANT ANALYSIS FOR 99th Avenue at Clover Leaf Parkway Blaine, Minnesota 2023- Build Conditions

LOCATION: 99th Ave NE at Clover Leaf Pkwy

COUNTY: Anoka

REF. POINT:

DATE: 4/27/2023

OPERATOR: CW

0.70 FACTOR USED?

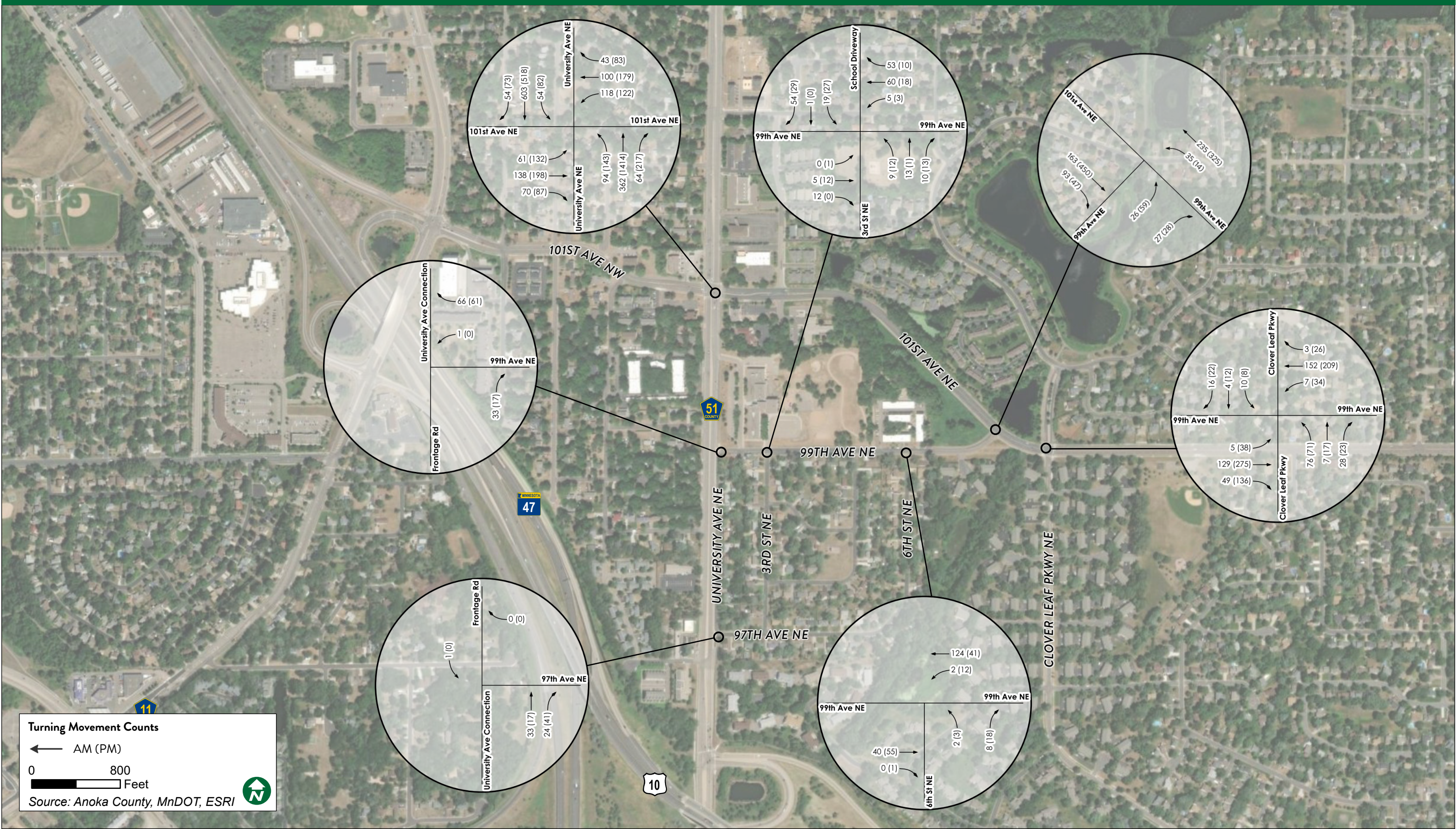
Yes

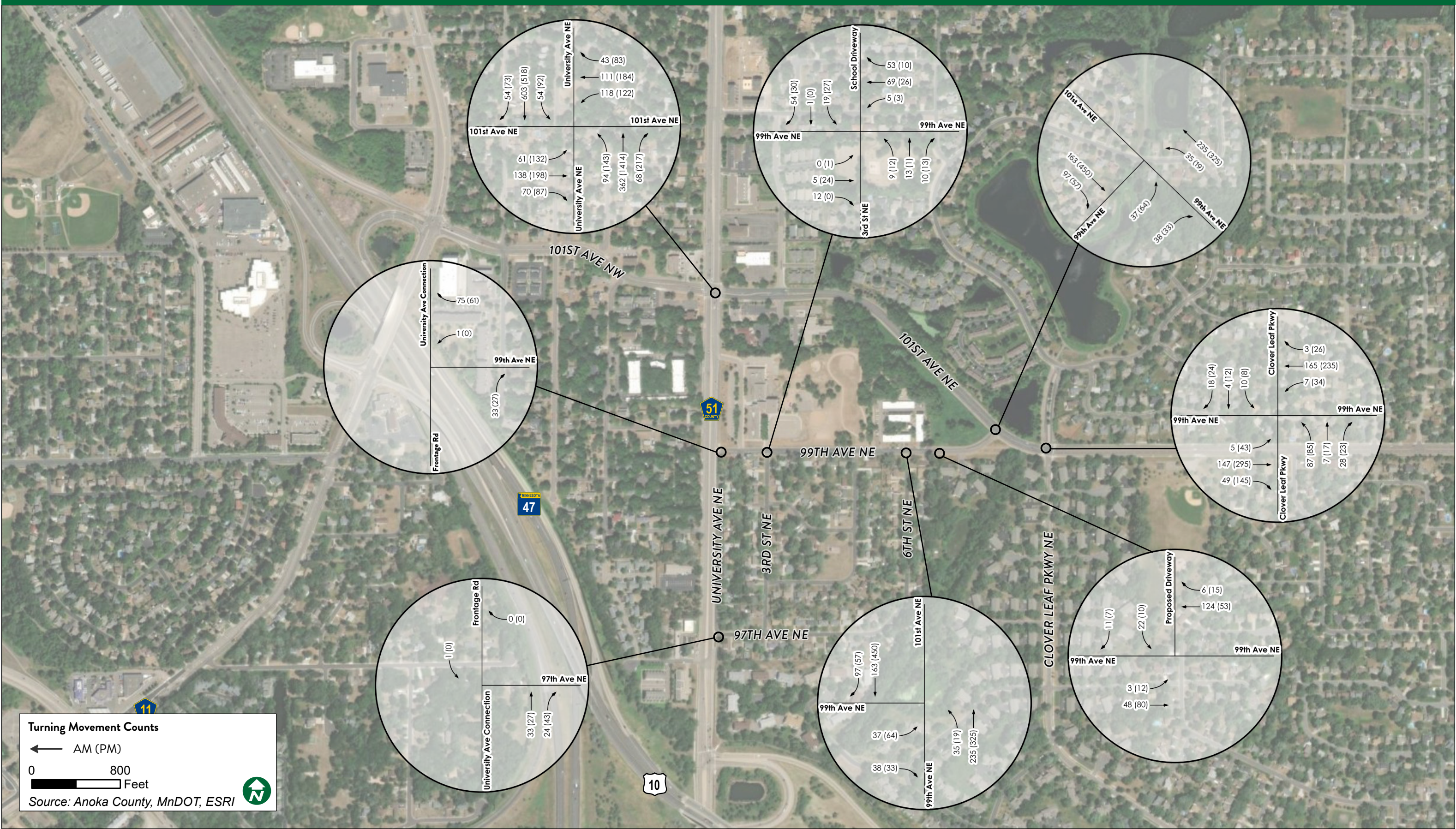
Speed	Approach Description	Lanes
45	Major App1: EB 99th Avenue	2
45	Major App3: WB 99th Avenue	2
30	Minor App2: NB Clover Leaf Parkway	1
30	Minor App4: SB Clover Leaf Parkway	1

HOUR	210				140		WARRANT MET
	MAJOR	MAJOR	MINOR	MINOR	MAJOR TOTAL Σ (APP. 1 & APP. 3)	MINOR TOTAL APP. 2 + APP. 4	
0:00 - 1:00	25	11	7	0	36	7	/
1:00 - 2:00	26	12	4	1	38	5	/
2:00 - 3:00	20	4	1	1	24	2	/
3:00 - 4:00	7	17	2	0	24	2	/
4:00 - 5:00	15	37	24	10	52	34	/
5:00 - 6:00	45	91	44	12	136	56	/
6:00 - 7:00	104	139	105	26	243	131	X/
7:00 - 8:00	158	208	131	61	366	192	X/X
8:00 - 9:00	154	153	117	41	307	158	X/X
9:00 - 10:00	173	171	113	30	344	143	X/X
10:00 - 11:00	163	150	85	18	313	103	X/
11:00 - 12:00	196	164	74	31	360	105	X/
12:00 - 13:00	231	187	93	26	418	119	X/
13:00 - 14:00	208	165	102	26	373	128	X/
14:00 - 15:00	301	173	96	24	474	120	X/
15:00 - 16:00	435	236	115	29	671	144	X/X
16:00 - 17:00	453	265	134	38	718	172	X/X
17:00 - 18:00	458	198	128	40	656	168	X/X
18:00 - 19:00	281	201	101	38	482	139	X/
19:00 - 20:00	245	149	77	23	394	100	X/
20:00 - 21:00	202	115	52	13	317	65	X/
21:00 - 22:00	138	92	37	9	230	46	X/
22:00 - 23:00	99	47	18	3	146	21	/
23:00 - 24:00	71	17	13	1	88	14	/

Allway Stop Warrant: Met (Hr) 6 Required (Hr) 8 Not satisfied

REMARKS: _____





Blaine Neighborhood Meeting Notes 03/07/2023

Pedestrian concerns:

- Sidewalk on north side of 99th Avenue needed. Walking on this street with higher volumes and speeds not advisable but does happen.
- Some residents would like sidewalk on both sides of 99th, some do not
 - West end ROW right
- Get residents to the crosswalk at 6th Street
- Get kids to school safely – along 99th, crossing 99th, Safe routes to school
- Could connections to the east and across 101st Avenue be included?
- Would like sidewalk on frontage road but no space
- Provide sidewalk to crosswalk connections
- Park in neighborhood anticipated to be attended by new apartment residents

Vehicle traffic concerns:

- Traffic uses the University frontage road, 3rd Street and 97th Avenue/6th Street as a cut-through/bypass to get to neighborhoods east on 101st and as an alternative route during congested situations on University Avenue, specifically the PM peak.
 - University Avenue backups can get to 610 when crashes occur – neighborhood used as a shortcut
- AM and PM exit from 99th to 101st Avenue (left turn) difficult to make
 - Other option of University requires a u-turn at 101st Avenue signal
- 6th Street school traffic – can block two-way traffic movements
- Emergency vehicle inaccessibility when University is backed up
- Reduce traffic speeds (frontage road, 3rd Street, 6th Street, 97th Avenue, 99th Avenue)
- Traffic sightlines – safety exiting 99th to 101st

Parking concerns:

- Parking along University frontage road during school events – impacts roadway space.
- Parking along 99th Avenue for school events and during drop-off/pick-up
- No parking zones work well – extend further from school? Some yes, some no
 - Some mentioned a no-parking zone along part of 98th

Maintenance concerns:

- Potholes – pavement rehab needed
- Snow/ice buildup at access from University Avenue to 97th Avenue – jurisdictional change from county to city
- Fire hydrant placement on curve of 97th and 6th 0 has gotten hit by traffic, also far up into yard makes it hard to clear snow out around it

- Drainage along 99th flows east – several ponding/drainage issues

School concerns:

- School pick-up traffic backs-up along 99th are a concern – sometimes to 101st Avenue.
- Buses exiting onto University Avenue – difficult, could buses use 99th and 101st Avenue?
- Other bus routing possible in and out of school?
- Parent pick up line extends throughout the neighborhood. Some residents have been blocked in by parents waiting. Double-wide parking has been observed on 99th.

Development concerns:

- School traffic mixing
- School pedestrian traffic
- Parking
- 99th/101st congestion
- More cut-through traffic
- Already a lot of moving trucks and frequent rental changes at Royal Oaks, concern over increase in similar traffic

Mitigations mentioned:

- Close off from University Avenue
 - Emergency vehicle access needs to be maintained
- Speed humps
- Lower speed limit
- All-way stop control (3rd and 99th)
- Roundabouts (on 101st)
- Eastbound right turn lane on 101st at 99th
- Westbound left turn lane on 101st at 99th



City of Blaine Staff Report

File Number: 2023-604

Agenda Date	Status
December 11, 2023	
In Control	File Type
City Council	Workshop Item

New Business - Erik Thorvig, Community Development Director

Agenda Item # 2.7

105th Avenue Redevelopment Financial Discussion

Background

Various agreements have recently been approved by the City Council and other entities regarding the 105th Redevelopment Project. As the City Council is aware, a key initial component of advancing the project is determining the financing structure for turf fields at the National Sports Center. The agreements approved by the City Council on October 16, 2023, and the ground lease between the MASC and the developer identify the installation of ten turf fields at the NSC. Funding and installation of the turf fields is the mechanism for the MASC/NSC to enter into the ground lease with the developer which allows the developer control of approximately 16 acres of MASC land for private development.

The concept of the City issuing a \$12MM bond has been discussed with the City Council. City staff, with the assistance of their municipal financial consultant Baker Tilly, identified a payment structure for the \$12MM bond. The payment structure is in the form of tax abatement. The annual debt service for the bond is approximately \$1,300,000. The term of the debt is 15 years. Tax abatement is like tax increment financing (TIF), where the increased property taxes received because of new development can be captured to pay debt for various improvements related to a project. Unlike TIF, the county and school district have the option to participate in tax abatement. County and school district participation is crucial in making debt service payments feasible.

Approximately \$125MM in new value is needed to generate annual taxes in the amount of \$1.3MM to cover the annual debt service. The developer has identified approximately \$100MM in new development that would occur on the MASC property. This property does not generate any tax dollars today. Because the ground lease allowing the developer control of the MASC property is dependent upon financing of the fields, no development, nor new tax value would be generated on the MASC property unless the turf field financing is approved. The remainder of the project would likely be captured in a TIF district to assist in typical redevelopment costs such as demolition, environmental, infrastructure and public parking facilities. Any taxes currently collected from properties in a future TIF district would continue to be collected by the various taxing entities.

The \$100MM in new development on the west side of the project would be captured in the tax abatement. The remaining \$25MM in value needed would be captured elsewhere in the City, likely from one or two new apartment builds that opened in 2023. The apartments are Arris II, which is located at 9460 Ulysses Street and Glenfield Park Estates, which is located at 8585 and 8615 Groveland Court. Both are in the SLP school district. Baker Tilly is analyzing whether both buildings are needed to achieve the value necessary to generate the needed abatement dollars. Because the apartments are new, the full value hasn't been realized on the tax rolls. Therefore, there is no "take" of existing tax dollars collected by the various taxing authorities.

The financial analysis is still being reviewed and revised. It is dependent on estimated values and actual development. The developer is currently finalizing a concept master plan which will provide better clarity on values, timing, etc. The final development and financial proposal would be completed prior to any formal action. The City of Blaine is requesting Anoka County and Spring Lake Park Schools to consider a formal participation request at a board meeting in January, ahead of the City formally considering bond issuance in February.

City staff are having ongoing discussions with Anoka County and Spring Lake Park Schools regarding their participation in tax abatement. Spring Lake Park Schools was provided with information on the tax abatement option. Their staff are meeting in small groups with their board and could potentially take action on January 9.

Staff presented to the Anoka County Board on November 9, 2023, outlining the project and request. The county board discussed the proposal at their November 28, 2023, workshop. In general, the county board is supportive of the project, however, some commissioners have concerns about using tax abatement as a tool. Tax abatement has not been used by Anoka County and there is concern about setting a precedent and whether the proposal meets the current county tax abatement policy. County staff presented an alternative funding method through the Anoka County HRA. The county has used this entity for economic development purposes in other cities, most recently a \$1MM grant for expansion of an industrial facility in the City of Anoka. The Anoka County HRA has separate levy authority and 12 of the 21 cities in Anoka County participate in the HRA. Blaine does not. Most cities are smaller, except for Columbia Heights and Ramsey. Ramsey, Columbus and Columbia Heights have an Anoka HRA levy, along with city HRA and/or EDA levies.

Discussions between Anoka County and city staff outlined a potential scenario where Anoka County would front either all or a portion of the \$12MM funding needed for the turf fields at 0% interest. This would eliminate the need to utilize tax abatement to repay debt. Anoka County would require the City of Blaine to participate in the Anoka County HRA, with an estimated annual levy of \$1.8-1.9MM issued by the Anoka County HRA, which would allow the Anoka County HRA to repay themselves with levy proceeds. This repayment would occur in 6-7 years. The levy would be from the Anoka County HRA. For a median valued home in Blaine, the additional levy would be approximately \$47 annually.

There are several benefits to the city with this scenario, which include:

- A. Significant savings in interest and administrative fees. If the City were to issue debt for \$12MM through the sale of bonds, there would be approximately \$5MM in interest payments. No fees would be paid for the sale of the bonds, etc.

- B. The one or two apartment buildings that would be needed to get to the \$125MM in value for tax revenue to cover the debt service are not needed, and those properties can go directly on the tax rolls for all taxing entities.
- C. With tax abatement, there would be a 2-3 year lag between when debt is issued and when full abatement revenue is collected from the new development. Baker Tilly has analyzed methods to cover the debt service for the first 2–3 years, (capitalized interest, abating other property in the short-term, etc.). However, this is not needed if the Anoka County HRA provides the funding.
- D. The approximately \$100MM in development value in Phase 1 of the district could either be placed on the tax rolls immediately and/or identified as abatement property for financing of the stadium. It is anticipated that revenue sharing would cover stadium debt. However, the debt issued would be in the form of a GO tax abatement bond and properties would still need to be identified for abatement, even though the revenue isn't needed. Since the abatement revenue isn't needed, the taxes generated could still go to all taxing authorities immediately.
- E. The process to secure the \$12MM is more streamlined as it does not require Spring Lake Park Schools to participate and there is no bond sale action, etc.
- F. Once the loan is repaid, the annual levy collected by the Anoka County HRA is another funding source that can be utilized for housing, redevelopment projects and general economic development in the City of Blaine.
- G. Removes financial risk to the City and the City does not need to incur additional debt. Additional debt can be viewed negatively by a rating agency which identifies the city's bond rating, currently AAA.

The following is information about the Anoka County HRA and the potential involvement of Blaine in the Anoka County HRA.

The Anoka County Housing and Redevelopment Authority (ACHRA) was established in December 1994 to provide housing and redevelopment services to cities and townships that did not have an HRA. The ACHRA Board of Trustees consisted of County Commissioners or a citizen from their district who was appointed by the Commissioner. The current Bylaws require commissioners serve as the ACHRA Trustee and there are no longer citizen members of the board. The primary focus of the ACHRA was the development of senior housing. The ACHRA believes that local officials have the best understanding of the housing and redevelopment needs of their community and have taken the following actions to be reactive to local governments:

- Any expenditure of HRA funds by a city within the area of operation of the ACHRA must be initiated by the City Council in the form of a resolution. The resolution contains a description of the project, a funding amount request and the time frame the project will be completed during.
- ACHRA levy funds raised through a tax are dedicated to that community. Funds may accumulate over time so that a city can undertake large projects.
- Once a city identifies a project, ACHRA staff conducts research to make certain that the project meets MN Statute 469, the law authorizing HRA, Port Authority and Economic Development Authorities.

In 2007, Anoka County accepted a recommendation from a committee formed to evaluate the need for economic development activities to be undertaken by the ACHRA. The Economic Development

Exploratory Committee was charged with evaluating the need for economic development activities to be provided by the County. The Committee followed the process outlined in MN General Law. At the end of the exploratory period, the committee was required to select one of three options:

- Create a new entity and grant full EDA powers and taxing authority.
- Select an existing authority to provide services.
- Do nothing. Continue the HRA levy and only provide housing and redevelopment funding.

The recommendation from the Economic Development Exploratory Committee identified a need for economic development activities at the county level and assigned the responsibility to the ACHRA. They further recommended that no additional EDA taxes be levied. This means that cities that participate in the ACHRA can spend funding on housing, redevelopment, or economic development projects and the HRA may establish a levy that does not exceed the maximum allowed under MN Statute 469 for Housing and Redevelopment Authorities. This decision reflected the desire to limit the taxing authority of the ACHRA by not adding a separate EDA levy.

Participation in economic development activities is optional. Cities and townships that participated in the ACHRA in 2007 and saw benefit to the new area of service were asked to pass a resolution opting into the economic development activities and expand the types of projects that could be funded. Opting into the economic development activities does not increase the levy rate used by the ACHRA.

Currently, the ACHRA budget is established to support senior housing operations in four cities. In each of these communities, the levy is pledged to support the bonds issued for senior housing developments. The ACHRA must establish one levy rate for the entire area of operation. If a community participates in the program but doesn't have a senior housing facility operated by the ACHRA (like Blaine), the funds levied accumulate in a fund balance for the city.

The levy for 2024 was approved by the ACHRA Board of Trustees on December 1, 2023, at the maximum HRA rate of 0.185% of taxable market value. If the City of Blaine passes a resolution to participate in the ACHRA program, it is estimated that the levy collected will provide \$1.8MM - \$1.9MM per year, starting in 2025. The ACHRA collects an administrative fee to support HRA operations and activities that frequently provide benefit to all members.

Participation in the ACHRA does not remove any responsibility from a city that has established either a HRA or EDA. Instead, it allows the city and county to work together to facilitate projects. If the City of Blaine wants to participate in the ACHRA program, the following steps would be taken:

- Resolution to participate in the ACHRA. If the City wants to utilize funds for economic development, a second resolution opting into economic development activities is required.
- The ACHRA Board of Trustees will accept the resolution and include the city in the following year (2025) budget and levy. This must take place prior to August, when the preliminary budget and levy are established.
- If the city has a need for funding before the levy has generated adequate funding for the project, the ACHRA may enter a loan arrangement with the city with future levy being used to repay the ACHRA. This will require a Joint Powers agreement or other binding agreement to secure the funds.

- If there isn't an immediate need for funds, the city may accumulate levy funds for future use. To access the funds, the City Council must pass a resolution identifying the use of funds.
- ACHRA will research the funding request and, if authorized under Statute 469, recommend approval to the ACHRA Board of Trustees. Once approved, the funds are available for use by the community.

The Anoka County board has not formally discussed in detail the concept of an internal loan and whether it would be for the full amount or a portion of the \$12MM, however, it was generally introduced at their workshop. City staff are asking the city council whether there is interest in pursuing the Anoka County HRA option. If there is interest, further discussion and analysis would need to occur prior to any formal actions taken by both the Anoka County HRA and City of Blaine.

Staff Recommendation

Questions for Council

Is the City Council interested in joining the Anoka County HRA as a tool to fund turf field improvements at the National Sports Center?

Attachment List

None



City of Blaine Staff Report

File Number: 2023-625

Agenda Date	Status
December 11, 2023	
In Control	File Type
City Council	Workshop Item

New Business - Michelle Wolfe, City Manager

Agenda Item # 2.8

Review State and Federal Lobbying Contracts and Update Current Legislative Agenda

Executive Summary

The current federal government relations contract will soon expire. Council is being asked to approve the April 2023 - April 2024 contract at the rate of \$4,500 per month for a total of \$54,000.

Background

Staff will review the current lobbying contracts and legislative agenda for 2024.

The City of Blaine maintained contract relationships with three lobbying firms during 2023:

State Lobbying - Lockridge Grindal Nauen P.L.L.P. ("LGN")

Federal Lobbying - The Ferguson Group ("TFG")

Federal Lobbying - Jacobson Law Group

Attached are year-end reports from all three lobbying firms. It was an extremely successful year, with all three firms supporting our efforts to secure funding necessary to proceed with the TH65 project, which was the city's top legislative priority. LGN and TFG assisted the city with a number of other legislative efforts, as outlined in the year-end reports.

The contract with The Jacobson Group runs through March 31, 2024.(The current Agreement is attached for reference.) Discussions about a new contract will take place in the first quarter of the year.

The contracts with LGN and TFG run with the calendar year. Therefore, they expire at the end of 2023. It is necessary to renew contracts for 2024.

LGN: A proposed three-year agreement is attached. LGN is proposing an annual fee of \$38,000. The current annual fee is \$38,000. The contract fee was \$36,000 annually from 2018-2022. LGN has been lobbying for the city since 2018.

TFG: The current 2023 agreement is attached. The current monthly fee is \$5,000 or \$60,000 annually, and that rate will remain in effect for 2024. Staff is awaiting information regarding the proposed fee for 2024. The Ferguson Group was selected as the city's federal lobbying firm following an RFP process, and a contract was awarded effective April 5, 2022 through the end of December.

2024 Legislative Agenda

A legislative agenda including city council's 2024 priorities needs to be developed. An hour of time at a January workshop has been set aside for discussion of the 2024 legislative agenda. In preparation for that discussion, staff would be interested in initial input from Mayor and City Councilmembers. In addition, staff has prepared a draft of items to potentially include in the 2024 priorities.

Strategic Plan Relationship

By partnering with lobbying firms, relationships are built, and services provided to support the city's progress on the top priority project, TH 65 reconstruction. Advocacy and grant services are necessary to improve the city's opportunities to secure over \$120 million in federal funding.

Board/Commission Review

Financial Impact

Public Outreach/Input

Staff Recommendation

Council is asked to provide input on the City's legislative agenda for 2024.

Attachment List

1. Agreement
2. TFG-City of Blaine 2023 Review - FINAL 1.0
3. Jacobson Law Group Blaine YE Report 23
4. Lockridge City of Blaine 3-year Contract 2024-2026 4879-1322-3796 v.1
5. Lockridge LGN - City of Blaine Report 2023
6. Ferguson Group City of Blaine MN 2023 LOA - 230103

**GOVERNMENT RELATIONS AGREEMENT
BETWEEN
THE CITY OF BLAINE
AND
JACOBSON, MAGNUSON, ANDERSON & HALLORAN, P.C.**

DATED: April 1, 2023

THIS AGREEMENT is made and entered into the date first above written, by and between the CITY OF BLAINE (“Client”) and JACOBSON, MAGNUSON, ANDERSON & HALLORAN, P.C., Attorneys at Law, (“Firm”), with offices at 180 East 5th Street, Suite 940, St. Paul, MN, 55101. The parties hereto agree as follows:

1. Authority. That the City of Blaine does hereby contract with, retain, and employ the Firm as Government Relations representatives in the matters contained herein.
2. Government Relations Representatives. It shall be the duty of the Firm to act as government relations representatives for and on behalf of the Client and to appear as such before federal governing bodies, the Legislature, agencies, departments, committees and other departments of the federal government.
3. Services. The Firm may provide services in the following areas: Government Relations services as detailed in Appendix A. The Firm shall be authorized to use its professional judgment in determining the manner and means of achieving the Client’s goals.
4. Government Relations Services. The Client shall pay the Firm for government relations services rendered, and as described in Appendix A, in accordance with the following schedule:

\$4,500 per month for a total of \$54,000 for the period of April 1, 2023 through March 31, 2024.

Invoices addressed to City of Blaine, 10801 Town Square Drive NE, Blaine, MN 55449. Reasonable expenses pre-approved by the Client will be billed in addition to the monthly fee.

5. Retainer and Expenses. This letter of agreement proposes a \$4,500 monthly retainer that covers federal advocacy work. Additionally, it includes approved expenses described below.

Approved expenses will be billed separately and shall include long distance telephone calls, faxes, document production, overnight delivery, in-town courier services, business meals (pre-approved by the City), out-of-town travel (pre-approved by the City), and in-town travel (taxi). Such charges shall not exceed \$2,500 over the twelve-month contract period unless preapproved by the Client.

The City will be invoiced monthly to include the monthly retainer and any expenses incurred. Upon request, TFG will provide hourly breakdowns and descriptions of work performed.

JLG will provide periodic reports to the City that detail the work we have performed on the City's behalf. We will provide real-time updates on new opportunities to support City priorities; any opportunities to advance the City's federal policy objectives; and the status of relevant legislation and regulations.

6. Additional Work and Renegotiation: If work for the Client requires services in excess of those listed in Appendix A, the Client and Firm shall renegotiate the terms of this contract.
7. Assignment. No assignment of the obligation of this Agreement, in whole or in part, shall be made without the Client's express written consent, nor shall any assignment or encumbrance be made of any interest in this Agreement by the Firm without the Client's previously obtained consent.
8. Conflict of Interest. In the event any work required under this Agreement comes into potential or direct conflict with an existing client of the Firm, the Firm will immediately notify the Client of the potential or direct conflict and may terminate the Agreement and cease representation in the event the conflict cannot be resolved.
9. Termination. This Agreement can be terminated by either of the parties without cause by written notice, provided that in the event this Agreement is terminated, the Firm will promptly cease all work on the project. Upon receiving final payment for authorized services and applicable expenses, the Firm shall provide the Client copies of all files requested and any necessary originals in the possession of the Firm.
10. Invoices. The Firm shall provide monthly invoices specifically detailing work performed during the invoice period. The Client shall use commercially reasonable efforts to pay such invoices within thirty (30) days of receipt and approval.
11. Term. This Agreement shall be in effect for a period commencing upon April 1, 2023 and ending March 31, 2024, unless terminated as provided herein.
12. Amendment. This Agreement may be amended by written agreement signed by the parties.

IN WITNESS WHEREOF, we have hereunto set our hands this day.

CITY OF BLAINE

JACOBSON, MAGNUSON,
ANDERSON & HALLORAN P.C.

Mayor



R. Reid LeBeau II
Shareholder

City Manager

Appendix A

Government Relations Services

- Monthly reports on congressional action of note.
- Monthly written reports on JLG-specific efforts and communications with members of Congress and staff.
- Schedule DC and district meetings with appropriate and relevant individuals to progress the Highway 65 project. Meetings will be scheduled in coordination with the Mayor's schedule. Should funding for the Highway 65 project be secured within the contract year, we will be available to work on any other City priorities.
- Provide City Administration and/or Council with an in-person report at least once in 2023, or at the request of City Administration and/or Council.
- JLG (in partnership with Folger Square) will make no fewer than 5 personal contacts per month with members of Congress and/or staff.
- JLG (in partnership with Folger Square) will strategize and execute a plan for personally lobbying members of a Conference Committee, if one is appointed prior to the end of the current Congress.



TO: Michelle Wolfe, City Manager

FROM: David Hoover

DATE: November 29, 2023

2023 Federal Advocacy and Grant Services Review

This memorandum provides an overview of the federal advocacy and grant services provided by The Ferguson Group (TFG) to the City of Blaine in 2023. Throughout 2023, TFG has been focused on four initiatives: the Minnesota Trunk Highway 65 Project, the City's Federal Agenda, grant funding services, and other ongoing advocacy services.

Minnesota Trunk Highway 65

Fiscal Year 2024 Appropriations

The Fiscal Year 2024 appropriations process began in January 2023 with TFG working closely with the City Manager's Office and the Public Works Department to submit appropriations requests to the City's congressional delegation to fund the Minnesota Trunk Highway 65 at 117th Avenue project. On behalf of the City, TFG submitted a \$4 million Community Project Funding request to Rep. Tom Emmer and separate \$4 million Congressionally-Directed Spending requests to Sen. Amy Klobuchar and Sen. Tina Smith.

TFG compiled the required project information and support documentation, drafted, and reviewed all three earmark request forms. On behalf of the City, TFG also drafted letters of support to each Member of the City's congressional delegation and organized the collection of community letters of support for the TH65 project. TFG submitted all three applications prior to the March 13 deadline.

Throughout the process, TFG provided expert guidance and advice to the City on the earmark request process. TFG also coordinated all communications with each Member's appropriations staff to ensure a successful application submission and to promptly address any follow-up questions from Member or committee staff.

Rep. Emmer and Senators Klobuchar and Smith each selected and forwarded the City's Highway 65 request to the House or Senate Appropriations Committee. TFG drafted thank-you letters to each Member for submitting the City's request. The House Appropriations Subcommittee on Transportation, and Housing and Urban Development (T-HUD) included the City's TH 65 CPF request in the FY 2024 T-HUD appropriations bill, which has not yet

been passed by the full House of Representatives. TFG has continued to provide updates on the FY 2024 appropriations process to the City Management Team.

RAISE Grant Application

In June 2023, the U.S. Department of Transportation awarded \$20 million in grant funding to the City of Blaine to improve road safety and accessibility on Highway 65 from 97th Ave to 117th Ave. The funding from the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant Program will help support the final design, right-of-way acquisition, and construction along the project corridor, which features several interchange improvements, added frontage roads, and safety improvements for pedestrians and bicyclists.

The TFG Grants Team provided grant review services for the City's FY2023 RAISE application. Specifically, TFG reviewed, edited, and offered recommendations to strengthen the grant narrative. It also provided scoring assessments for each of the grant sections, including Environmental Sustainability, Mobility and Community Connectivity, and Economic Competitiveness and Opportunity, to improve the overall competitiveness of the grant application.

Federal Agenda

In 2022, after meeting in-person with City officials and staff to better understand the City's federal advocacy and funding priorities, TFG developed a Federal Agenda to help Blaine successfully pursue Federal legislative, regulatory, and grant funding opportunities. TFG updated the Federal Agenda in November 2022, and the City Council approved it soon thereafter. The document, which is included in this Year-End Review, highlights funding priorities by department. Throughout 2023, TFG has highlighted open grant opportunities that are aligned with the City's funding priorities. Based on the City Council's recommendations regarding its 2024 Federal priorities, TFG will update the Federal Agenda to reflect the City's funding needs and any actionable legislative or regulatory opportunities.

Grant Services

TFG created a Grants Matrix Timeline that provides the City with key information, such as upcoming application windows and eligibility/selection criteria, for a variety of federal grant programs of interest to the City. In 2024, TFG looks forward to streamlining the grant opportunity notification process so it can better align the City's funding priorities with actionable advice regarding the application process and the likely return on investment taking into consideration several factors, such as post-award requirements.

Other Ongoing Advocacy Services

In addition to the specific projects and services previously highlighted in this Federal Advocacy Review, TFG continued to provide the following services in support of the city's interests and efforts at the federal level.

- Client Communications: TFG believes clear and consistent communication is essential to a successful relationship with the City. Our reporting included bi-weekly Federal Update calls with the City Management Team, special action alerts, free access to TFG subject matter webinars, and timely information on relevant grants, legislation and regulations, as well as congressional committee meetings, hearings, and conferences. Both David Hoover and Mike Miller were available to respond to questions, conduct research, and provide counsel to City officials and staff on virtually all relevant federal matters.
 - The City also received several TFG newsletters on a regular basis including:
 - TFG Legislative Update (weekly)
 - TFG Grants Update (weekly)
 - TFG Transportation Notes (weekly)
 - TFG Infrastructure Funding Bulletin (bi-weekly)
 - TFG Interconnect (bi-weekly)
- Congressional Advocacy: TFG continued to strengthen its working relationships with the Minnesota Congressional Delegation, especially with recent staff changes and departures in those offices. In addition, TFG continued to establish and develop relationships with other Members with shared interests and/or jurisdictional authority over issues and projects important to the City. TFG also coordinated advocacy outreach efforts with the City's other government relations consultant on congressional meetings pertaining to the Highway 65 project and FY2024 appropriations.
- Impact of Legislation and Regulations. In addition to seeking funding for the City through congressional appropriations, regulatory agency communications, and competitive grants, TFG also counseled the City and drafted memos on legislation and regulatory action that could be beneficial or harmful, such as the Northern Long-Eared Bat Endangered Species Reclassification, H.R. 1520 – Energy Efficiency and Conservation Block Grant Program, Occupational Safety and Health Act, and the Financial Data Transparency Act.



To: Mayor Tim Sanders; Michelle Wolfe, City Administrator

From: Reid LeBeau

Re: Federal Lobbying Year End Report

Date: November 30, 2023

The purpose of this memo is to provide a year-end report on the activities of the Jacobson Law Group and Folger Square regarding federal lobbying efforts.

Overall, our activities have included in-person meetings with members of Congress and staff in Washington, D.C. and direct communication with same throughout the calendar months of 2023. We were successful in being included in congressionally directed spending requests by Sen. Smith and Congressman Emmer.

Building on our activities from 2022, we scheduled a series of meetings in Washington, D.C. in April to meet with key members of the Minnesota delegation and other members of Congress to press our request for funding.

In June, we were contacted by congressional staff informing us of significant grant funding to the City. The City's advocacy efforts were highlighted in the Senator Amy Klobuchar's announcement of the \$20 million award to the City from the USDOT's *Rebuilding American Infrastructure with Sustainability and Equity* (RAISE) program, which will allow the City to improve road safety and accessibility on Highway 65 from 97th Ave to 117th Ave. Clearly, all the efforts to raise the project's visibility and inform policy makers of the critical infrastructure needs in Blaine paid off.

Following the Minnesota legislative session, we communicated with congressional staff to inform them of the amount of money the State had provided to the Highway 65 project. Additionally, we began conversations with the Mayor and staff about a City event highlighting that the project was fully funded.

In July, we met with Mayor Sanders to discuss any additional needs at the federal level and to ensure that communication with the congressional offices was continuing and will continue as the project commences. We also followed up concerning planning a City "thank you" event.

The City hosted the event we suggested in October, and JLG staff were in attendance. Since that time, Folger Square consultants have continued to monitor federal legislation for additional funding opportunities for other projects, and we have been available for congressional outreach as needed by the City.

Harry E. Gallaher
hegallaher@locklaw.com
Direct: 612.596.4039

MINNEAPOLIS
Suite 2200
100 Washington Avenue South
Minneapolis, MN 55401-2179
T 612.339.6900
F 612.339.0981

August 8, 2023

Michelle Wolfe, City Manager
City of Blaine
10801 Town Square Drive NE
Blaine, MN 55449

Re: Retainer agreement for Government Relations Services

Dear Michelle:

This letter confirms that the City of Blaine (hereafter the “City”) wishes to continue to retain the law firm of Lockridge Grindal Nauen P.L.L.P. (hereafter “LGN”) and its government relations team to assist the City in advocacy of economic development, tax and funding legislative priorities as requested. LGN will pursue the City's state legislative priorities at the State Capitol. LGN will communicate with the City regularly providing updates, collaborate with the City on strategy and implement state lobbying to advocate for the City's legislative priorities. When requested, LGN will provide updates to the City Council.

The City and LGN will continue to work their work together on their work plan for the Minnesota Legislative Sessions, which includes the City's legislative priorities in addition to Highway 65 infrastructure improvements. LGN will continue providing updates and progress reports to the city.

The term of engagement for the services provided shall be January 1, 2024-December 31, 2026. LGN will bill the City professional fees in twelve equal installments in the amount of \$3,166.66 per month, commencing January 1, 2024, for a total project fee of \$38,000.00 for each year 2024, 2025 and 2026. LGN will also bill the City for all pre-approved reasonable and incidental expenses incurred on behalf of the City.

August 8, 2023

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The City will be billed for fees and expenses on a monthly basis, and LGN expects payment within twenty (20) days of billing. Either party may terminate upon thirty (30) days' notice. In the event of any such termination prior to the end of any given month, City will be responsible for the unpaid prorated fees and expenses LGN incurred on its behalf, for work performed, prior to the date of termination.

If the terms and conditions as set forth in this retainer agreement are acceptable, please sign and date where indicated below and return the original. If you have any questions regarding this letter or any other matter, please do not hesitate to call me. We are honored to have the opportunity to represent the City of Blaine and look forward to working with you and your team.

Very truly yours,

LOCKRIDGE GRINDAL NAUEN P.L.L.P.

DocuSigned by:

154222G2EA7C47C...
Harry Gallaher

Mayor Tim Sanders
City of Blaine

Date: _____

Michelle Wolfe, City Manager
City of Blaine

Date: _____

2023 Lockridge Grindal Nauen (LGN) Legislative Report:

It is an honor and a privilege to represent the City of Blaine at the Minnesota State Capitol. We are proud to have designed and led the successful effort to secure \$102 million dollars from the State Legislature for the Highway 65 project. Our work together over several years has paid off tremendously and we are thrilled to have worked hard with the City of Blaine to achieve this victory.

We are pleased to provide a year-end report of our work in 2023.

Trunk Highway 65

A combination of a strong lobbying strategy, strong relationships with Blaine legislators and numerous Legislative Chairs were leveraged to secure a historic \$102 million in Trunk Highway and General Obligation bonds for the project. Additionally, this victory combined with our continual close work with Minnesota Department of Transportation (MNDOT) and the Governor's office resulted in MNDOT's decision to designate an additional \$30 million dollars for the Highway 65 project.

We built exceedingly strong relationships with the newest members of your delegation, Representative Norris and Senator Kreun, and continued to have a great relationship with Representative West, Representative Koegel, and Representative Newton.

We also worked close with the following key decision makers and staff as a part of our lobbying strategy:

- House Capital Investment Chair Fue Lee
- Senate Capital Investment Chair Sandy Pappas
- House Capital Investment Staff
- Senate Capital Investment Staff
- Governor's Senior Advisor on Bonding
- Governor's Senior Advisor on Transportation
- House Transportation Chair Frank Hornstein
- Senate Transportation Chair Scott Dibble
- House Minority Lead on Capital Investment Dean Urdahl
- Senate Minority Lead on Capital Investment Karin Housley
- Minnesota Department of Transportation Staff
- Minnesota Management and Budget Capital Budget Staff
- House Minority Leader Lisa Demuth
- Senate Minority Leader Mark Johnson
- Speaker of the House Melissa Hortman's and Staff
- Senate Majority Leader Kari Dziedzic's Staff

We also directed your legislative delegation to meet with key decision makers and they did so effectively.

Protect Local Control

Our team monitored a variety of legislative proposals that would affect local control. We succeeded in assisting to defeat numerous proposals that would negatively affect the City of Blaine's ability to make local decisions.

Municipal Salary Cap

After a multi-year effort, we and a coalition of supporters were pleased to complete this initiative and lift Minnesota's municipal salary cap. This will allow Minnesota municipalities to better compete with the private market and other states as it relates to administrative salaries.

Opposing Mandated Reductions in Development and Building Fees

Due to our efforts as part of a local government coalition, no initiatives became law this year that would require municipalities to reduce development and building fees. Our team continues to stay in touch with a coalition of organizations who oppose this issue. 2024 is a policy year and we expect to remain engaged on this issue.

Miscellaneous Work

Our team worked on numerous miscellaneous items as requested and directed by Manager Wolfe and the Mayor. We responded to the City of Blaine concerns regarding protection of long-eared bats and met with the Department of Natural Resources on this item. We monitored and briefed the City of Blaine on efforts at the Capitol to finance and build a MYSA facility in the south metro, we tracked the new paid family leave program, the new earned safe and sick programs, numerous MPCA items including MS4 permits and affordable housing cost increase limits for the City of Blaine.

Finally, our team provided regular written updates throughout the legislative session. We met on a bi-weekly basis with Manager Wolfe, her team members and Mayor Sanders. We continued to check-in regularly throughout the interim via check-in calls. We also attended and presented at Blaine City Council work sessions as requested.

Thank you for allowing us to work on your behalf. It is a pleasure to work with you. Please do not hesitate to reach out with any questions.



Advocacy.
Consulting.
Grants.

January 3, 2022

Ms. Michelle Wolfe
City Manager
City of Blaine
10801 Town Square Drive, NE
Blaine, MN 55449

Re: Proposed Scope of Work and Letter of Agreement for Federal Advocacy Services for Calendar Year 2023

Dear Ms. Wolfe:

The Ferguson Group, LLC (TFG) is pleased to provide this letter of agreement for federal advocacy services to the City of Blaine (City) and we look forward to continuing our work together to promote your priorities at the federal level. TFG will provide the full range of advocacy and grants consulting services as outlined in our original February 2022 proposal and the City's 2022-2023 Federal Agenda and Workplan. Our services will include the following:

- **Strategic Advice** – TFG will provide strategic counsel to the City in all matters concerning applicable congressional action, federal agency policy and regulation, and the federal activities of other stakeholders having an impact on the City and its citizens.
- **Assistance in Communicating and Working with Federal Officials** – TFG will assist the City in working with Members of Congress and staff, congressional committees, and federal agency officials and staff at all levels of the Federal government on these matters.
- **Advocacy on Budget and Appropriations** – TFG will seek the inclusion of resources in the President's budget requests and in congressional appropriations legislation for applicable federal agencies to accomplish the City's objectives.
- **Recommendations and Advocacy on Statutory Authorizations** – If federal legislation is needed to achieve the City's federal priorities, TFG will provide the City's congressional delegation, and the relevant congressional committees and federal agencies, with institutional expertise and support as necessary to develop, advocate for, and implement federal legislation and authorizations.
- **Build Stakeholder Support** – TFG will advise the City on obtaining and coordinating stakeholder support from key organizations or individuals (such as environmental groups or business interests) that may be necessary to implement the City's federal priorities.
- **Grants Consulting & Advocacy** – TFG will provide logistical and institutional support as outlined in the proposal to secure grant funding for projects on the City's federal agenda. If grant writing services are required by the City, TFG will provide those services at a discounted rate.

The City of Blaine’s advocacy team is provided below. However, TFG’s professional team works closely together and draws from the expertise of other professionals that are not assigned to a specific team. As such, the City will have access to all of TFG’s professional team.

Team Member	Responsibilities
David Hoover Principal dhoover@tfgnet.com (202) 261-6009 direct (703) 919-2994 cell	David will serve as the client manager and primary point of contact to the City and the congressional delegation. He will focus on housing and community development, public safety, and innovation issues. David will coordinate with the National League of Cities, U.S. Conference of Mayors, and other relevant organizations to promote the city’s federal priorities.
Mike Miller Partner mmiller@tfgnet.com (202) 451-3948 direct (707) 287-0023 cell	Mike will focus on transportation and water infrastructure-related issues.
Chris Cummings Legislative Director ccummings@tfgnet.com (202) 454-3922 direct (707) 287-0023 cell	Chris will monitor all legislative and regulatory activity that may be of interest to the City and assist in developing the appropriate advocacy strategy.
Heidi Schott Principal and Director of Grant Services hschott@tfgnet.com (202) 261-3690 direct (202) 304-9778 cell	Heidi will oversee all grant-related work for the City.

Term: This agreement between TFG and the City of Blaine will commence retroactively on January 1, 2023 and continue through December 31, 2023. At the conclusion of the period covered by this agreement, the City may elect to extend this agreement for an additional period and at terms acceptable to the City and TFG. Either party may terminate this agreement at any time by giving the other at least thirty (30) days prior written notice. If there is a balance due at the time of termination of this agreement, the City agrees to pay said balance in full within thirty (30) days of the effective date of the termination.

Retainer and Expenses: This letter of agreement proposes a \$5,000 monthly retainer that covers all federal advocacy work. Additionally, it includes grant monitoring and reporting, grants training, general grant guidance, review of grant applications, and help securing congressional support for grant applications. It does not, however, include grant writing or grant administration. TFG contracts with our clients separately for those services, and we will provide more information on those fee structures at the City’s request.

Approved expenses will be billed separately and shall include long distance telephone calls, faxes, document production, overnight delivery, in-town courier services, business meals (pre-approved by the City), out-of-town travel (pre-approved by the City), and in-town travel (taxis). Such charges shall not exceed \$2,500 over the twelve-month contract period. The City will be invoiced monthly to include the monthly retainer and any expenses incurred. Upon request, TFG will provide hourly breakdowns and descriptions of work performed.

TFG will provide periodic reports to the City that detail the work we have performed on the City's behalf. We will provide real-time updates on new funding opportunities to support City priorities; any opportunities to advance the City's federal policy objectives; and the status of relevant legislation and regulations. In addition, TFG agrees to file all documentation required by the Lobbying Disclosure Act to represent the City before Congress and federal agencies.

We greatly appreciate the opportunity to work with the City of Blaine. If the terms of this letter of agreement are acceptable, please sign the agreement and return one copy. Should you have any questions regarding the proposal, please do not hesitate to contact me at 202-255-5759. We look forward to starting our work with you as soon as possible.

Sincerely,



W. Roger Gwinn
CEO

ACKNOWLEDGED AND AGREED TO BY:

THE FERGUSON GROUP, LLC

THE CITY OF BLAINE, MINNESOTA

W. Roger Gwinn
CEO

Michelle Wolfe
City Manager

January 3, 2022
Date

Date