

# Traffic Impact Study and Parking Evaluation Proposed Residential Development

Warrenville, Illinois



Prepared for:



June 20, 2025

# 1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study and parking evaluation conducted by Kenig, Lindgren, O’Hara, Aboona, Inc. (KLOA, Inc.) for a proposed townhome development to be located in Warrenville, Illinois. The 9.44-acre site is located in the northwest corner of the intersection of Warrenville Road with Ferry Road/Mill Street and is proposed to contain 91 townhomes and a total of 400 parking spaces. Access to the development is proposed to be provided via Maecliff Drive which has a full movement intersection with Ferry Road and is restricted to right-turn movements only at Warrenville Road.

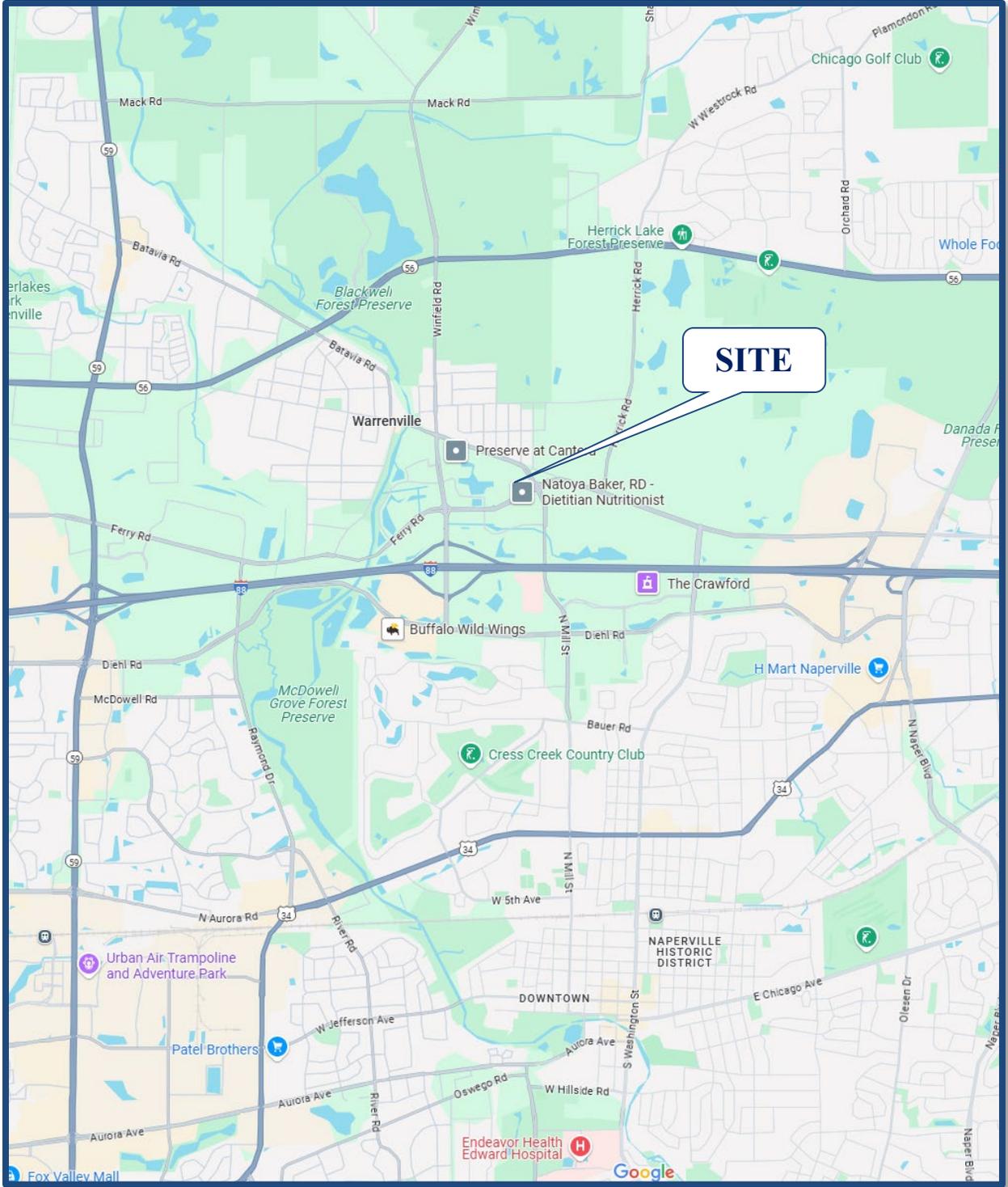
The purpose of this study was to examine existing traffic conditions to establish a base condition, assess the impact that the proposed development would have on traffic conditions in the area, and determine if any roadway and/or traffic control improvements are needed to accommodate the traffic generated by the proposed residential development. **Figure 1** shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site.

The sections of this report present the following:

- Existing roadway conditions
- A description of the proposed development
- Directional distribution of development-generated traffic
- Vehicle trip generation for the proposed development
- Future traffic conditions, including access to the development
- Traffic analyses for the weekday morning and weekday evening peak hours
- Recommendations with respect to adequacy of the site access and adjacent roadway system
- Evaluation of the adequacy of the proposed parking supply

Traffic capacity analyses were conducted for the weekday morning and weekday evening peak hours for the following conditions:

1. Existing Conditions – Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.
2. Year 2031 No-Build Conditions – Analyzes the capacity of the existing roadway system using the existing peak hour traffic volumes increased by an ambient area growth not attributable to any particular development.
3. Year 2031 Total Projected Conditions – Analyzes the capacity of the future roadway system using the projected traffic volumes that include the existing traffic volumes, ambient area growth not attributable to any particular development, and the traffic estimated to be generated by the full buildout of the proposed development.



Site Location

Figure 1



Aerial View of Site

Figure 2

## 2. Existing Conditions

The following provides a detailed description of the physical characteristics of the roadways including geometry and traffic control, adjacent land uses, and peak hour traffic flows along area roadways.

### Site Location

The site, which is currently vacant, is located in the northwest corner of the intersection of Warrenville Road with Ferry Road/Mill Street. Land uses in the vicinity of the site are primarily office/hotel uses to the east, south and southwest, and residential to the north and northwest. Hyatt House, Hyatt Place, and the Preserve at Cantera apartment complex is located to the west and Gardner School of Warrenville is located to the east.

### Existing Roadway Characteristics

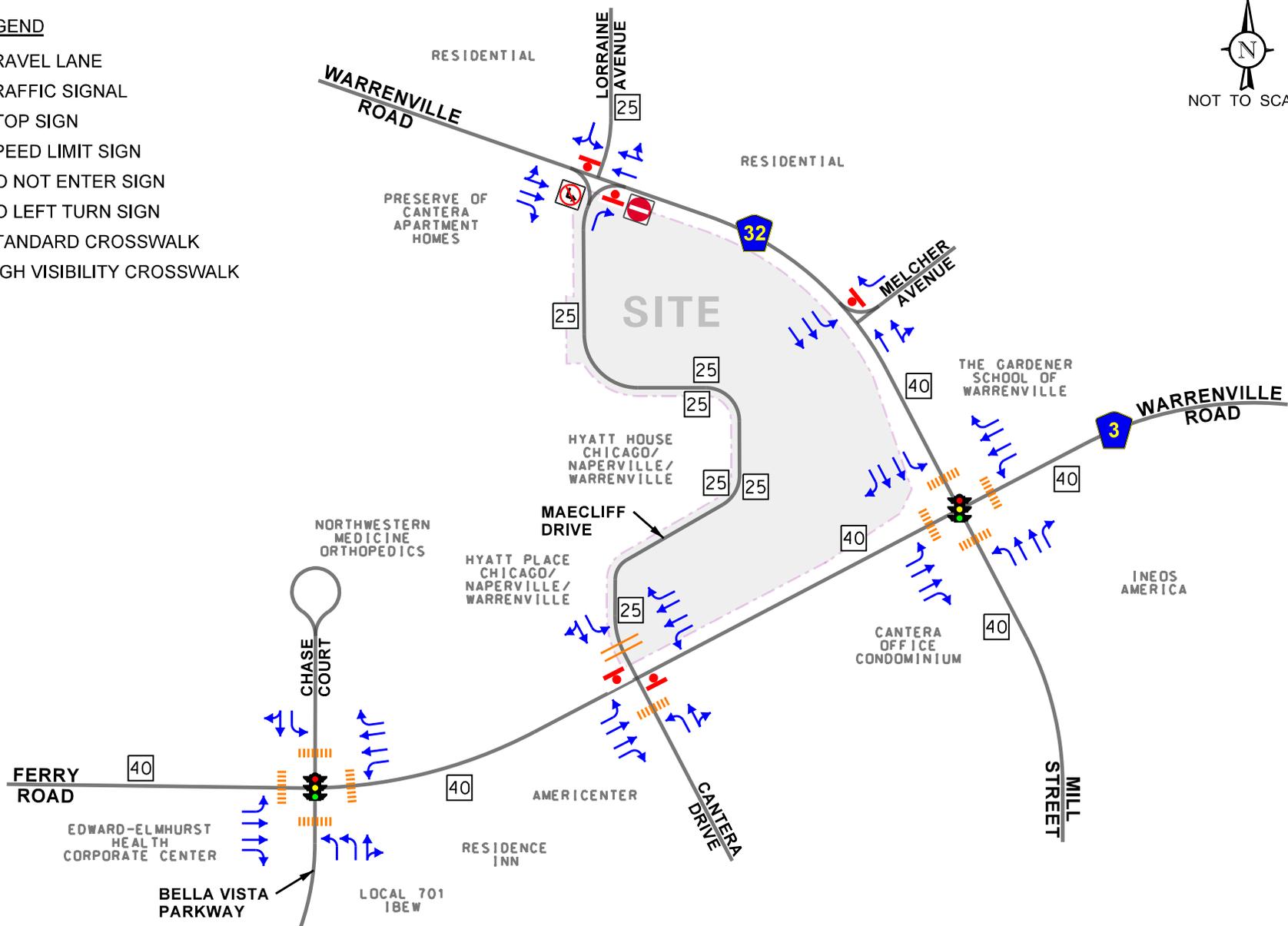
The characteristics of the existing roadways that surround the proposed development are described below and illustrated in **Figure 3**.

*Warrenville Road (DuPage County Route 3)* is generally an east-west minor arterial roadway that in the vicinity of the site provides two travel lanes in each direction. Warrenville Road has a signalized intersection with Ferry Road and Mill Street in which Warrenville Road creates the north and east legs of the intersection. Both legs provide an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane. At its unsignalized intersection with Maecliff Drive/Lorraine Avenue, Warrenville Road provides an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane on the eastbound approach and a through lane and a shared through/right-turn lane on the westbound approach. Warrenville Road is under the jurisdiction of the DuPage County Division of Transportation (DuDOT), carries an Annual Average Daily Traffic (AADT) volume of 6,400 vehicles (IDOT 2020), and has a posted speed limit of 40 miles per hour.

*Ferry Road (DuPage County Route 3)* is generally an east-west minor arterial roadway that provides two travel lanes in each direction and extends west from its signalized intersection with Warrenville Road and Mill Street. At its signalized intersection with Warrenville Road and Mill Street, Ferry Road provides an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane. At its unsignalized intersection with Maecliff Drive/Cantera Drive, Ferry Road provides an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane on the eastbound and westbound approaches. Ferry Road is under the jurisdiction of DuDOT, carries an AADT volume of 5,450 vehicles (IDOT 2020), and has a posted speed limit of 40 miles per hour.

**LEGEND**

-  - TRAVEL LANE
-  - TRAFFIC SIGNAL
-  - STOP SIGN
-  - SPEED LIMIT SIGN
-  - DO NOT ENTER SIGN
-  - NO LEFT TURN SIGN
-  - STANDARD CROSSWALK
-  - HIGH VISIBILITY CROSSWALK



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Warrenville, Illinois

Existing Roadway Characteristics



Job No: 25-123

Figure: 3

*Mill Street (DuPage County Route 32)* is a north-south minor arterial roadway that provides two travel lanes in each direction and extends south from its signalized intersection with Warrenville Road and Ferry Road. At its signalized intersection with Warrenville Road and Ferry Road, Mill Street provides an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane. Mill Street is under the jurisdiction of DuDOT, carries an AADT volume of 6,000 vehicles (IDOT 2020), and has a posted speed limit of 40 miles per hour.

*Maecliff Drive* is generally a north-south local roadway that provides a single travel lane in each direction. At its intersection with Warrenville Road, Maecliff Drive provides a single northbound travel lane that is under stop sign control and restricted to right-turn movements via a raised porkchop median, striping, and signage. At its intersection with Ferry Road, Maecliff Drive provides a single southbound lane that is under stop sign control and is aligned opposite Cantera Drive, which provides an exclusive left-turn lane and a shared through/right-turn lane that are under stop-sign control. Maecliff Drive is a private roadway and has a posted speed limit of 25 miles per hour.

*Bella Vista Parkway* is a roadway that extends south of Ferry Road where it curves east and connects to Mill Street. The roadway provides a single travel lane in each direction separated by a two-way left turn lane or exclusive left-turn lanes. Bella Vista Parkway is signalized at its intersection with Ferry Road and provides dual left-turn lanes and a shared through/right-turn lane on the northbound approach. The north leg of the intersection is Chase Court, which provides an exclusive left-turn lane and a shared through/right-turn lane. Bella Vista Parkway also has a signalized intersection with Mill Street in which the Bella Vista Parkway approaches provide an exclusive left-turn lane and a shared through/right-turn lane.

*Old Warrenville Road* is generally an east-west local roadway that provides a single lane in each direction. This roadway follows the historic right-of-way of Warrenville Road prior to the construction of the signalized intersection of Warrenville Road with Ferry Road/Mill Street and connects the west and east segments of Warrenville Road. This roadway has two unsignalized intersections with Warrenville Road. The west intersection prohibits westbound left-turn movements on Warrenville Road and the east intersection prohibits eastbound left-turn movements onto Old Warrenville Road. The segment of Old Warrenville Road allows West Avenue and Melcher Avenue to have access to Warrenville Road.

## Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period traffic counts using Miovision Scout Video Collection Units on Tuesday, May 6, 2025 during the morning (7:00 A.M. to 9:00 A.M.) and evening (4:00 P.M. to 6:00 P.M.) peak periods at the following intersections:

- Warrenville Road with Ferry Road/Mill Street
- Warrenville Road with Old Warrenville Road (west)
- Warrenville Road with Maecliff Drive
- Ferry Road with Maecliff Drive
- Ferry Road with Bella Vista Parkway

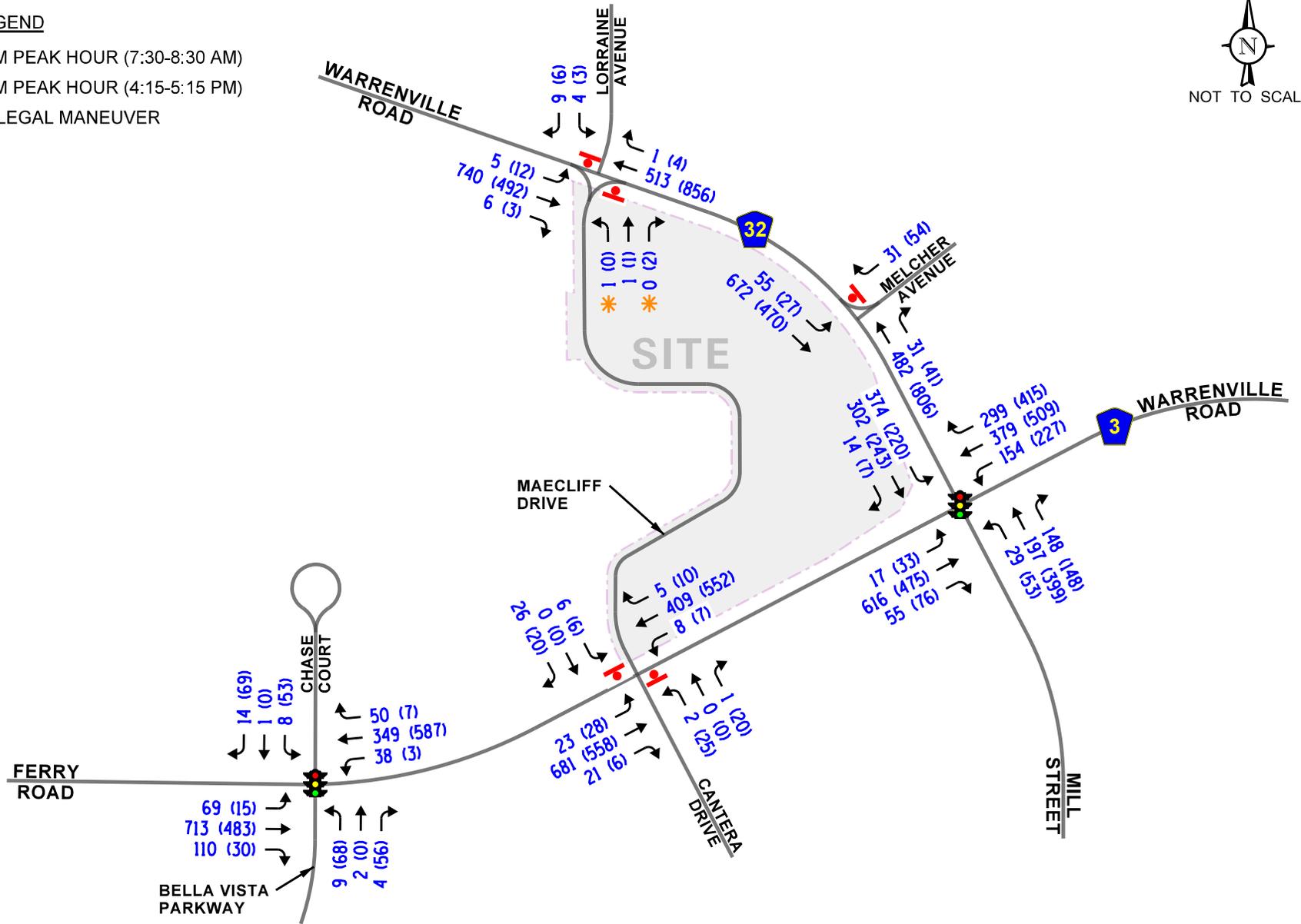
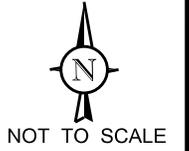
The results of the traffic counts show that the peak hours of traffic generally occurred between 7:30 A.M. and 8:30 A.M. during the weekday morning peak period and between 4:15 P.M. and 5:15 P.M. during the weekday evening peak period.

It should be noted that Hubble Middle School was in session on the day the counts were conducted. The weekday morning peak hour encompasses the start time for the school which is 8:00 A.M. Furthermore, counts conducted at the signalized intersection of Warrenville Road with Ferry Road/Mill Street indicate that traffic volumes during the school's dismissal hour (3:00 P.M. to 4:00 P.M.) are approximately 13 percent lower than the weekday morning peak hour and 20 percent lower than the evening peak hour traffic volumes. As such, the weekday morning and evening peak hours identified above analyzes the highest peak hour traffic volumes along the area roadway network.

The existing peak hour vehicle traffic volumes are shown in **Figure 4**. Copies of the traffic count summary sheets are included in the Appendix.

**LEGEND**

- 00 - AM PEAK HOUR (7:30-8:30 AM)
- (00) - PM PEAK HOUR (4:15-5:15 PM)
- \* - ILLEGAL MANEUVER



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Existing Traffic Volumes



Job No: 25-123

Figure: 4

## Crash Data Summary

KLOA, Inc. obtained available crash data<sup>1</sup> from IDOT for the most recent five years (2019 to 2023) for the intersections within the study area. **Table 1** summarizes the crash data at the intersection of Warrenville Road with Ferry Road/Mill Street. A review of the crash data indicated the following:

- The intersections of Ferry Road with Bella Vista Parkway/Chase Court, Ferry Road with Maecliff Drive/Cantera Drive, Warrenville Road with Maecliff Drive/Lorraine Avenue, experienced zero crashes during the review period.
- The intersection of Warrenville Road with Old Warrenville Road experienced one turning crash in 2023 and zero crashes in the other four years.
- The intersection of Warrenville Road with Ferry Road/Mill Street experienced one fatality crash in 2023 which was an angle crash between two passenger vehicles.

Table 1  
WARRENVILLE ROAD WITH FERRY ROAD/MILL STREET – CRASH SUMMARY

Year	Type of Crash Frequency							Total
	Angle	Head On	Object	Rear End	Sideswipe	Turning	Other	
2019	3	0	0	2	0	2	2	9
2020	0	0	0	1	0	3	0	4
2021	2	0	0	0	0	1	0	3
2022	2	0	1	2	0	1	0	6
2023	<u>2</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>6</u>	<u>0</u>	<u>8</u>
<b>Total</b>	<b>9</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>0</b>	<b>13</b>	<b>2</b>	<b>30</b>
<b>Average</b>	<b>1.8</b>	<b>0</b>	<b>0.2</b>	<b>1</b>	<b>0</b>	<b>2.6</b>	<b>0.4</b>	<b>6</b>

<sup>1</sup> IDOT DISCLAIMER: The motor vehicle crash data referenced herein was provided by the Illinois Department of Transportation. Any conclusions drawn from analysis of the aforementioned data are the sole responsibility of the data recipient(s).

### 3. Traffic Characteristics of the Proposed Development

To properly evaluate future traffic conditions, it was necessary to determine the traffic characteristics of the proposed development, including the directional distribution and volumes of traffic that it will generate.

#### Proposed Site and Development Plan

As proposed, the development will contain 91 townhomes and a total of 400 parking spaces. Access to the development is proposed to be provided via four access drives generally located on the east side of Maecliff Drive and spaced approximately equal distance to one another. All four access drives will provide one inbound lane and one outbound lane with the outbound lane under stop sign control. As indicated previously, Maecliff Drive has a full movement intersection with Ferry Road and a right-in/right-out intersection with Warrenville Road. It should be noted that Maecliff Drive also provides access to Hyatt House Chicago/Naperville/Warrenville and Hyatt Place Chicago/Naperville/Warrenville. A copy of the proposed site plan is included in the Appendix.

#### Directional Distribution

The directions from which traffic will approach and depart the development were estimated based on existing travel patterns, as determined from the traffic counts, the operation of the roadway system. **Figure 5** illustrates the directional distribution of traffic projected to be generated by the proposed development.

#### Peak Hour Traffic Volumes

As discussed above, the residential development is to consist of 91 townhomes. The volume of peak hour trips estimated to be generated by the proposed development was based on the “Single-Family Attached Housing” (Land-Use Code 215) vehicle trip generation rates contained in *Trip Generation Manual*, 11<sup>th</sup> Edition, published by the Institute of Transportation Engineers (ITE). **Table 2** summarizes the trips projected to be generated by the proposed development during the weekday morning and weekday evening peak hours as well as on a daily basis.

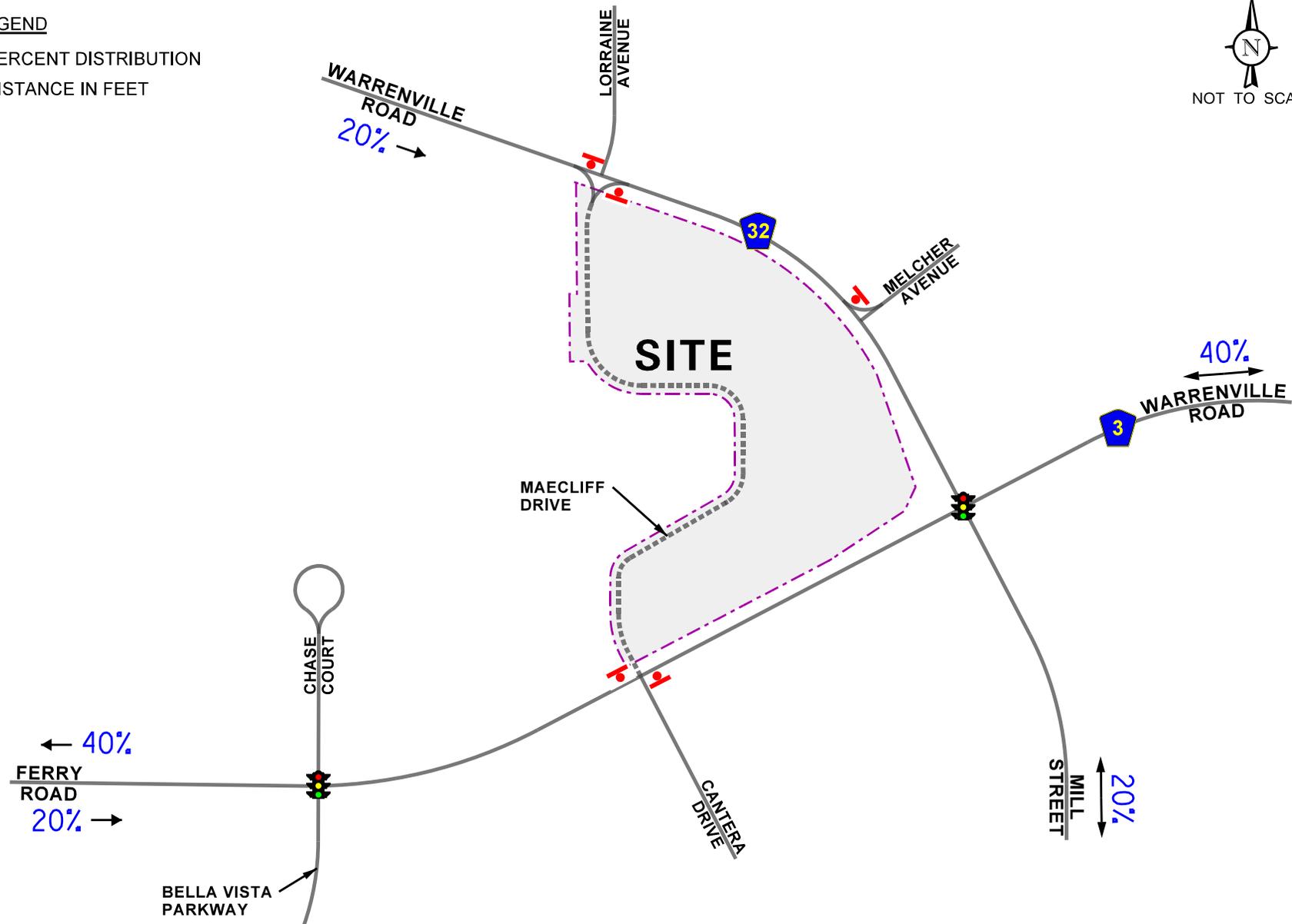
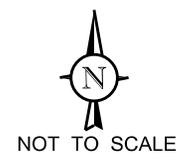
#### Trip Generation Comparison

The volume of traffic anticipated to be generated by the proposed development was compared to the trips estimated to be generated by the 125,000 square-foot office development previously approved for the subject site. The trips estimated to be generated by the office development was also based on information published in the ITE *Trip Generation Manual*, 11<sup>th</sup> Edition utilizing General Office (Land-Use Code 710) trip generation rates. **Table 3** summarizes the results of the trip generation comparison. As can be seen from Table 3, the proposed townhome development is projected to generate approximately 80 percent and 75 percent less traffic during the weekday morning and weekday evening peak hours, respectively, and approximately 55 percent less traffic daily. As such, the proposed townhome development is a far less traffic intense land-use than the previously approved office development.

**LEGEND**

00% - PERCENT DISTRIBUTION

00' - DISTANCE IN FEET



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Directional Distribution

Job No: 25-123 Figure: 5

Table 2  
ESTIMATED PEAK HOUR TRIP GENERATION

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Daily Trips		
		In	Out	Total	In	Out	Total	In	Out	Total
215	Single-Family Attached Housing (91 units)	10	32	42	30	21	51	322	322	644

Table 3  
TRIP GENERATION COMPARISON

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Daily Trips		
		In	Out	Total	In	Out	Total	In	Out	Total
215	Single-Family Attached Housing (91 units)	10	32	42	30	21	51	322	322	644
710	General Office (125,000 s.f.)	<u>178</u>	<u>25</u>	<u>203</u>	<u>34</u>	<u>166</u>	<u>200</u>	<u>705</u>	<u>705</u>	<u>1,410</u>
	<b>Difference</b>	<b>-168</b>	<b>7</b>	<b>-161</b>	<b>-4</b>	<b>-145</b>	<b>-149</b>	<b>-383</b>	<b>-383</b>	<b>-766</b>

## 4. Projected Traffic Conditions

The total projected traffic volumes include the existing traffic volumes, increase in background traffic due to growth, and the traffic estimated to be generated by the proposed development.

### Development Traffic Assignment

The estimated weekday morning and weekday evening peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 5). **Figure 6** illustrates the development traffic assignments.

### Background (No-Build) Traffic Conditions

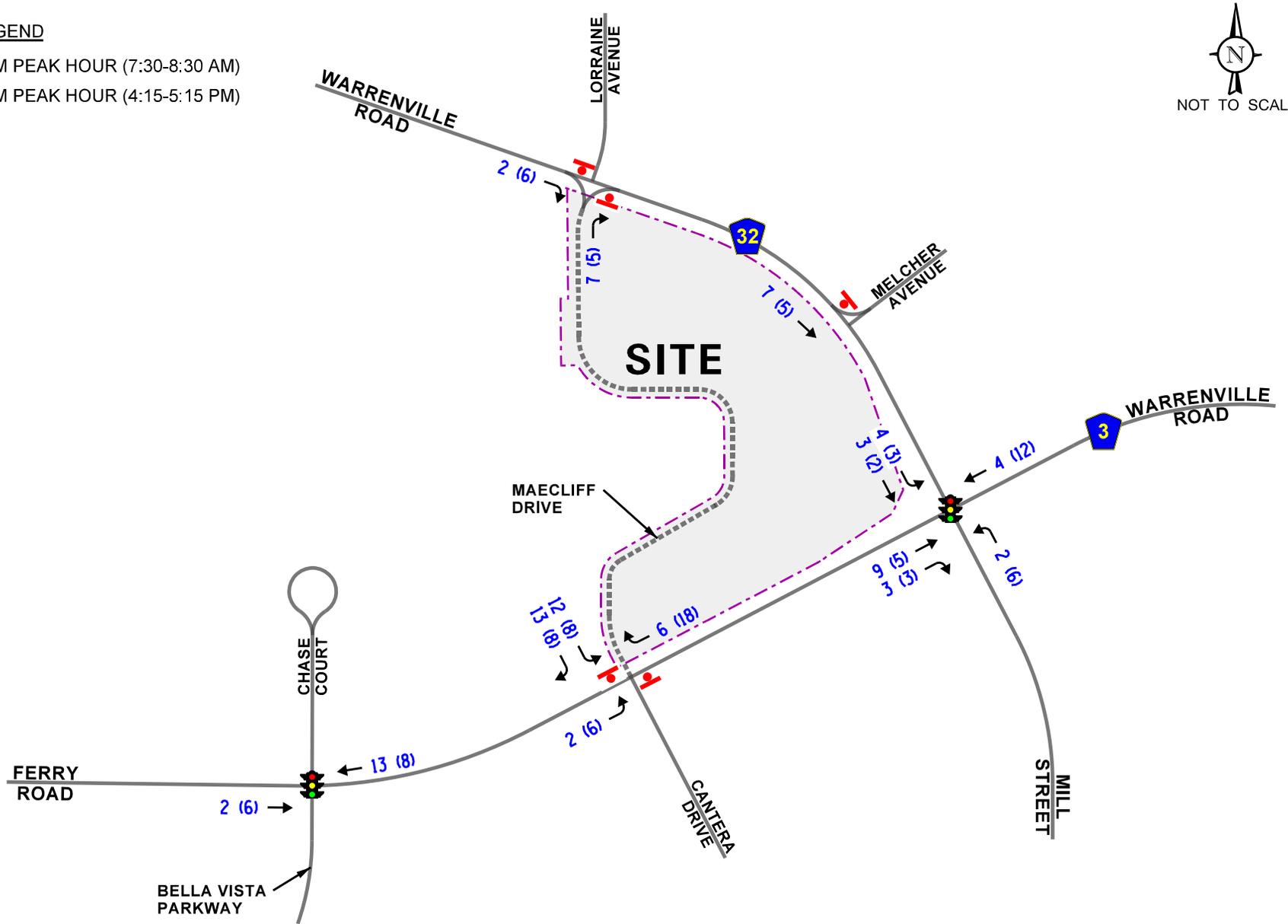
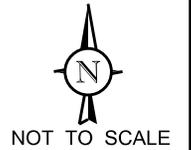
The existing traffic volumes (Figure 4) were increased by a regional growth factor to account for the increase in existing traffic related to regional growth in the area (i.e., not attributable to any particular planned development). Based on 2050 Average Daily Traffic (ADT) projections provided by the Chicago Metropolitan Agency for Planning (CMAP), the existing traffic volumes were increased by an annually compounded growth rate of 1.35 percent for six years (one-year buildout plus five years) totaling eight and a half percent to represent Year 2031 no-build conditions. The Year 2031 no-build traffic volumes are illustrated in **Figure 7**. A copy of the CMAP projections letter is included in the Appendix.

### Year 2031 Total Projected Traffic Volumes

The new development-generated traffic (Figures 6) was added to the Year 2031 no-build traffic volumes (Figure 7) to determine the Year 2031 total projected traffic volumes, as illustrated in **Figure 8**.

**LEGEND**

- 00** - AM PEAK HOUR (7:30-8:30 AM)
- (00)** - PM PEAK HOUR (4:15-5:15 PM)



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Site-Generated Traffic Volumes

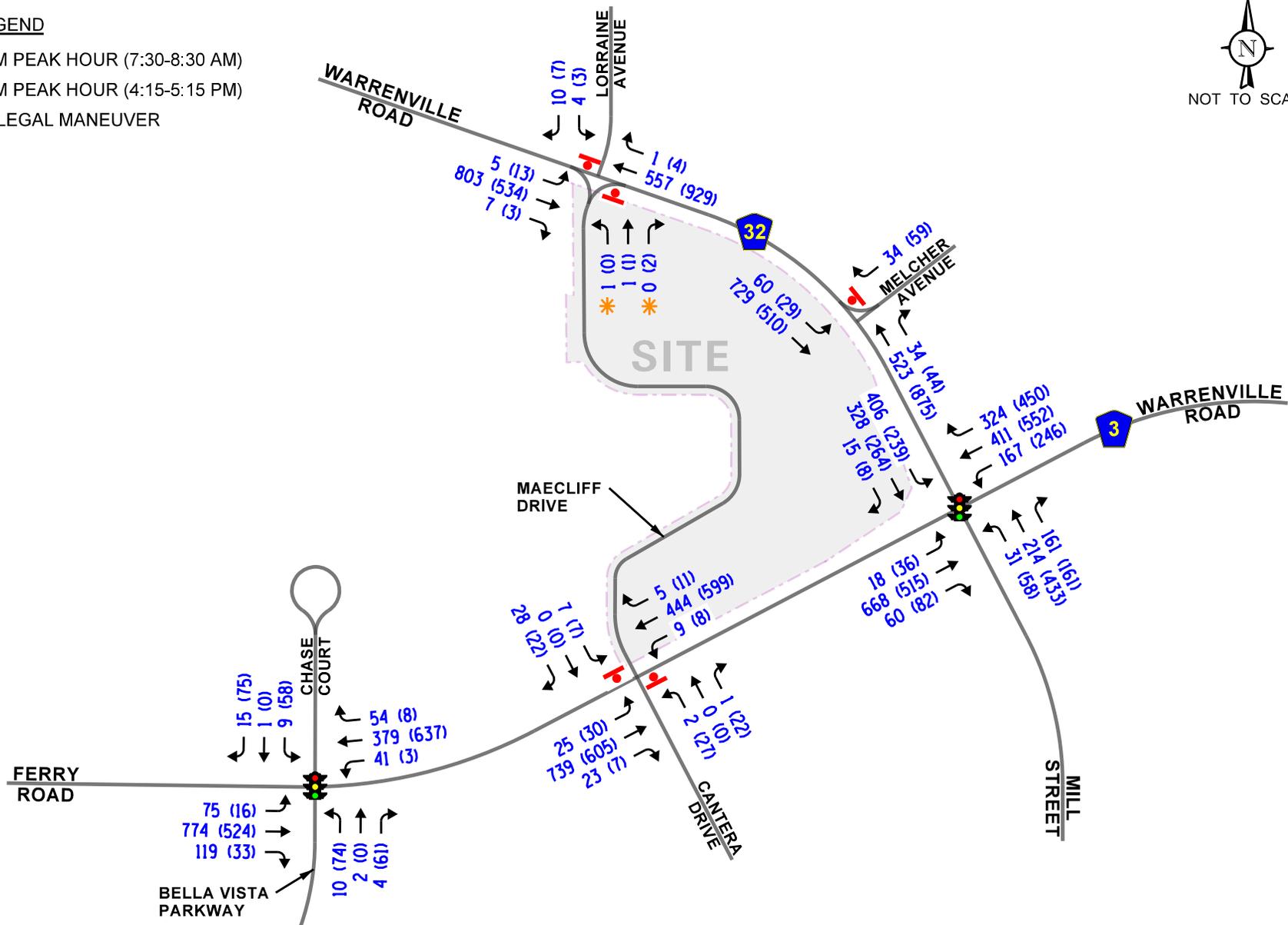


Job No: 25-123

Figure: 6

**LEGEND**

- 00 - AM PEAK HOUR (7:30-8:30 AM)
- (00) - PM PEAK HOUR (4:15-5:15 PM)
- \* - ILLEGAL MANEUVER



Cantera Point  
Warrenville, Illinois

Year 2031 No-Build Traffic Volumes

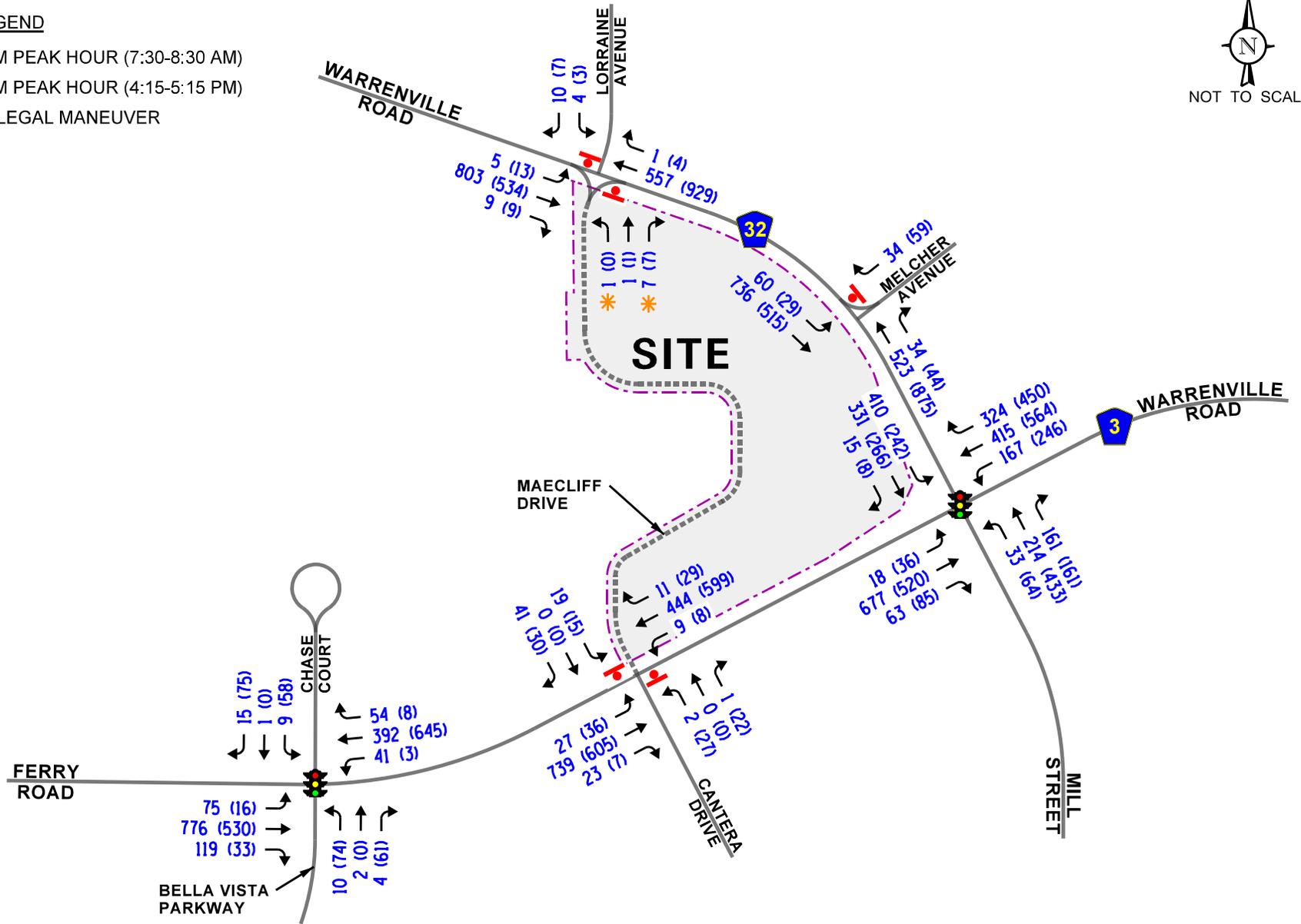


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Figure: 7

**LEGEND**

- 00 - AM PEAK HOUR (7:30-8:30 AM)
- (00) - PM PEAK HOUR (4:15-5:15 PM)
- \* - ILLEGAL MANEUVER



Cantera Point  
Warrenville, Illinois

Year 2031 Total Traffic Volumes



Job No: 25-123

Figure: 8

## 5. Traffic Analysis and Recommendations

The following provides an evaluation conducted for the weekday morning and weekday evening peak hours. The analysis includes conducting capacity analyses to determine how well the roadway system and access drives are projected to operate and whether any roadway improvements or modifications are required.

### Traffic Analyses

Capacity analyses were performed for the included intersections in the study area for the weekday morning and weekday evening peak hours for the existing, Year 2031 no-build, and Year 2031 total projected conditions.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's Highway Capacity Manual (HCM), 7th Edition and using Synchro/SimTraffic 12 analysis software. The analysis for the traffic-signal controlled intersections were accomplished using actual cycle lengths and phasings to determine the average overall vehicle delay and levels of services.

The analyses for the unsignalized intersections determine the average control delay to vehicles at an intersection. Control delay is the elapsed time from a vehicle joining the queue at a stop sign (includes the time required to decelerate to a stop) until its departure from the stop sign and resumption of free flow speed. The methodology analyzes each intersection approach controlled by a stop sign and considers traffic volumes on all approaches and lane characteristics.

The ability of an intersection to accommodate traffic flow is expressed in terms of level of service, which is assigned a letter from A to F based on the average control delay experienced by vehicles passing through the intersection. The *Highway Capacity Manual* definitions for levels of service and the corresponding control delay for signalized intersections and unsignalized intersections are included in the Appendix of this report.

A summary of the traffic analysis results showing the level of service and delay (measured in seconds) for the intersections under existing, 2031 no-build, and Year 2031 total projected conditions are shown in **Tables 4** through **8**. Copies of the capacity analysis reports are included in the Appendix. A discussion of each of the intersections follows.

Table 4

CAPACITY ANALYSIS RESULTS – WARRENVILLE ROAD WITH FERRY ROAD/MILL STREET – SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
Existing Conditions	Weekday Morning	B 11.9	C 27.9	A 2.5	B 19.6	C 22.4	A 1.3	A 1.3	C 27.1	D 54.0	B 11.9	D 41.3	A 0.1	C – 26.6
		C – 25.5			B – 14.3			D – 35.2			D – 37.9			
Existing Conditions	Weekday Evening	B 18.3	C 30.3	A 0.4	C 22.3	C 26.8	A 5.1	C 29.0	E 57.3	A 4.5	D 37.6	D 40.3	A 0.0	C – 28.1
		C – 25.7			B – 18.1			D – 41.7			D – 38.5			
No-Build Conditions	Weekday Morning	B 11.3	C 28.3	A 2.5	C 21.5	C 22.9	A 1.4	C 27.1	D 53.7	B 15.8	D 46.0	D 35.4	A 0.1	C – 27.8
		C – 25.8			B – 14.9			D – 36.6			D – 40.4			
No-Build Conditions	Weekday Evening	B 19.1	C 32.6	A 0.7	C 24.8	C 28.6	A 7.1	C 28.1	E 55.9	A 6.6	D 38.0	D 39.3	A 0.0	C – 29.2
		C – 27.7			C – 20.1			D – 41.3			D – 38.1			
Projected Conditions	Weekday Morning	B 11.3	C 28.5	A 2.5	C 21.6	C 22.9	A 1.4	C 27.3	D 53.7	B 15.8	D 46.9	D 35.6	A 0.1	C – 28.0
		C – 25.9			B – 15.0			D – 36.6			D – 41.1			
Projected Conditions	Weekday Evening	B 19.2	C 32.7	A 0.9	C 24.9	C 28.8	A 7.1	C 28.3	E 55.9	A 6.9	D 38.1	D 39.5	A 0.0	C – 29.3
		C – 27.8			C – 20.3			D – 41.2			D – 38.3			

Letter denotes Level of Service    L – Left Turn    R – Right Turn  
 Delay is measured in seconds.    T – Through

Table 5

CAPACITY ANALYSIS RESULTS – FERRY ROAD WITH BELLA VISTA PARKWAY/CHASE COURT – SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
Existing Conditions	Weekday Morning	A 1.8	A 3.9	A 1.1	A 1.8	A 3.2	A 0.2	E 60.0	D 42.5	E 61.4	C 31.0			A – 4.4
		A – 3.4			A – 2.7			D – 52.8			D – 41.5			
Existing Conditions	Weekday Evening	A 3.5	A 5.1	A 0.0	A 1.0	A 1.4	A 0.0	E 73.1	A 0.9	E 79.1	A 0.9			A – 9.2
		A – 4.8			A – 1.4			D – 40.4			C – 34.7			
No-Build Conditions	Weekday Morning	A 2.3	A 4.9	A 1.3	A 2.4	A 4.0	A 0.4	E 60.1	D 39.3	E 61.4	C 31.1			A – 5.1
		A – 4.2			A – 3.5			D – 52.0			D – 41.9			
No-Build Conditions	Weekday Evening	A 3.8	A 5.4	A 0.0	A 1.0	A 1.6	A 0.0	E 73.3	A 1.1	E 79.3	A 1.1			A – 9.4
		A – 5.0			A – 1.6			D – 40.6			D – 35.4			
Projected Conditions	Weekday Morning	A 2.3	A 4.9	A 1.3	A 2.4	A 4.1	A 0.4	E 60.1	D 39.3	E 61.4	C 31.1			A – 5.1
		A – 4.2			A – 3.5			D – 52.0			D – 41.9			
Projected Conditions	Weekday Evening	A 3.8	A 5.4	A 0.0	A 1.0	A 1.6	A 0.0	E 73.3	A 1.1	E 79.3	A 1.1			A – 9.4
		A – 5.0			A – 1.6			D – 40.6			D – 35.4			

Letter denotes Level of Service    L – Left Turn    R – Right Turn  
 Delay is measured in seconds.    T – Through

Table 6

CAPACITY ANALYSIS – UNSIGNALIZED – EXISTING CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
<b>Ferry Road with Maecliff Drive/Cantera Drive</b>				
• Northbound Left Turn	B	14.2	B	12.6
• Northbound Right Turn	A	9.0	A	8.9
• Southbound Left Turn	B	11.5	B	12.2
• Southbound Right Turn	A	8.7	A	8.9
• Eastbound Left Turn	A	7.9	A	8.3
• Westbound Left Turn	A	8.5	A	8.1
<b>Warrenville Road with Maecliff Drive/Lorraine Avenue</b>				
• Northbound Approach	--	--	A	9.9
• Southbound Approach	C	15.3	C	18.4
• Eastbound Left Turn	A	8.6	A	9.9
<b>Warrenville Road with Old Warrenville Road</b>				
• Westbound Approach	B	10.2	B	12.1
• Southbound Left Turn	A	8.8	A	9.9
LOS = Level of Service Delay is measured in seconds.		Note: All intersections under two-way stop sign control.		

Table 7

## CAPACITY ANALYSIS – UNSIGNALIZED – YEAR 2031 NO-BUILD CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
<b>Ferry Road with Maecliff Drive/Cantera Drive</b>				
• Northbound Left Turn	C	15.2	B	13.2
• Northbound Right Turn	A	9.0	A	9.0
• Southbound Left Turn	B	11.9	B	12.8
• Southbound Right Turn	A	8.8	A	9.0
• Eastbound Left Turn	A	8.0	A	8.4
• Westbound Left Turn	A	8.7	A	8.2
<b>Warrenville Road with Maecliff Drive/Lorraine Avenue</b>				
• Northbound Approach	--	--	B	10.0
• Southbound Approach	C	16.2	C	19.7
• Eastbound Left Turn	A	8.7	B	10.2
<b>Warrenville Road with Old Warrenville Road</b>				
• Westbound Approach	B	10.4	B	12.7
• Southbound Left Turn	A	9.0	B	10.3
LOS = Level of Service Delay is measured in seconds.		Note: All intersections under two-way stop sign control.		

Table 8

## CAPACITY ANALYSIS – UNSIGNALIZED – YEAR 2031 TOTAL CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
<b>Ferry Road with Maecliff Drive/Cantera Drive</b>				
• Northbound Left Turn	C	15.5	B	13.7
• Northbound Right Turn	A	9.0	A	9.0
• Southbound Left Turn	B	12.1	B	13.2
• Southbound Right Turn	A	8.9	A	9.1
• Eastbound Left Turn	A	8.0	A	8.5
• Westbound Left Turn	A	8.7	A	8.2
<b>Warrenville Road with Maecliff Drive/Lorraine Avenue</b>				
• Northbound Approach	B	11.4	B	10.1
• Southbound Approach	C	16.3	C	19.8
• Eastbound Left Turn	A	8.7	B	10.2
<b>Warrenville Road with Old Warrenville Road</b>				
• Westbound Approach	B	10.4	B	12.7
• Southbound Left Turn	A	9.0	B	10.2
LOS = Level of Service Delay is measured in seconds.		Note: All intersections under two-way stop sign control.		

## Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identifies any roadway and traffic control improvements necessary to accommodate the development-generated traffic.

### *Warrenville Road with Ferry Road/Mill Street*

The results of the capacity analyses indicate that this intersection currently operates at an overall level of service (LOS) C during the weekday morning and weekday evening peak hours. Furthermore, all the approaches/movements operate at LOS D or better during the peak hours except for the northbound through movement which currently operates at LOS E. Under Year 2031 no-build and total projected conditions, the overall intersection is projected to continue to operate at a LOS C during the weekday morning and evening peak hours. In addition, all the approaches and movements are projected to continue to operate at an LOS D or better during the peak hours except for the northbound through movement which is projected to continue operating at LOS E during the peak hours. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic signal modifications will be required.

### *Ferry Road with Bella Vista Parkway/Chase Court*

The results of the capacity analyses indicate that this intersection currently operates at an overall LOS A during the weekday morning and weekday evening peak hours. All the approaches and movements currently operate at LOS D or better during the peak hours except for the northbound and southbound left-turn movements which currently operate at LOS E. However, the lower level of service for the left-turn movements is expected due to the long cycle length and operation of these movements under a protected phase only. Under Year 2031 no-build and total projected conditions, the overall intersection and all the approaches/movements are projected to continue operating at existing levels of service. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic signal modifications will be required.

### *Ferry Road with Maecliff Drive/Cantera Drive*

The results of the capacity analyses indicate that all the critical movements at this intersection currently operate at LOS B or better during the weekday morning and weekday evening peak hours. Under Year 2031 no-build and total projected conditions, all the critical movements are projected to operate at LOS C or better during the peak hours. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications are required.

### *Warrenville Road with Maecliff Drive/Lorraine Avenue*

The results of the capacity analyses indicate that all the critical movements at this intersection currently operate at LOS C or better during the weekday morning and weekday evening peak hours. Under Year 2031 no-build and total projected conditions, all the critical movements are projected to operate at LOS C or better during the peak hours. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications are required.

### *Warrenville Road with Old Warrenville Road*

The results of the capacity analyses indicate that the westbound right-turn and southbound left-turn movements currently operate at LOS B or better during the weekday morning and weekday evening peak hours. Under Year 2031 no-build and total projected conditions, these movements are projected to continue operating at existing levels of service. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway improvements or traffic control modifications are required.

## Site Access Evaluation

Access to the development is proposed to be provided via four access drives generally located on the east side of Maecliff Drive and spaced approximately equal distance to one another. All four access drives will provide one inbound lane and one outbound lane with the outbound lane under stop sign control. As indicated previously, Maecliff Drive has intersections with both Warrenville Road and Ferry Road. The approach to Warrenville Road is restricted to right-turn movements only, whereas the Maecliff Drive approach to Ferry Road allows for full movements. Maecliff Drive also provides access to Hyatt House Chicago/Naperville/Warrenville and Hyatt Place Chicago/Naperville/Warrenville. Having access to the development via Maecliff will promote site access flexibility due to the following:

- Traffic exiting the development to the east towards the intersection of Warrenville Road with Ferry Road/Mill Street can do so by making a right-turn from Maecliff Drive onto Warrenville Road, thus limiting the volume of southbound left-turn movements at the intersection of Maecliff Drive with Ferry Road.
- Traffic entering the site from the east can traverse the signalized intersection of Warrenville Road with Ferry Road/Mill Street, thus allowing vehicles to utilize westbound Ferry Road to access the development.
- Both Ferry Road and Warrenville Road have signalized intersections with Winfield Road to the west. Therefore, traffic exiting the site to access Winfield Road can do so by making the southbound right-turn onto Ferry Road to access northbound Winfield Road.

Furthermore, as can be seen from the results of the capacity analyses, both intersections have sufficient reserve capacity to accommodate the traffic to be generated by the proposed development. Overall, traffic generated by the development during the peak hours will have a limited impact on the two hotels located along Maecliff Drive and far less impact than the previously approved office development.

## Traffic Signal Warrant Analysis

A traffic signal warrant analysis was performed at the intersection of Ferry Road with Maecliff Drive and Cantera Drive utilizing the warrant criteria published in the Federal Highway Administration's *Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD), 2009. To determine if the projected traffic volumes warrant the provision of a traffic signal the four-hour vehicular volume (Warrant 2) and peak hour vehicular volume (Warrant 3) warrants were utilized. A review of the site's physical characteristics and traffic conditions is also necessary to determine whether traffic signal installation is justified at a particular location.

Per the MUTCD, when the major road approaches have a 85<sup>th</sup> percentile speed of 40 miles per hour or greater, the 70 percent factor figures could be applied. Given that Ferry Road has a posted speed limit of 40 mph, the 70 percent factor figures were utilized for the purposes of this warrant analysis. The minor approach volumes were compared to the minimum minor road approach volumes for Warrants 2 and 3. Figures 4C-2 and 4C-4 in the MUTCD indicates the following:

- For Warrant 2, the minimum minor road approach volume for a minor road with two lanes is 80 vehicles for four hours.
- For Warrant 3, the minimum minor road approach volume for a minor road with two lanes is 100 vehicles for one hour.

As can be seen from Figure 8, the Maecliff Drive and Cantera Drive approaches will not exceed 80 vehicles during the peak hours and therefore, the four hour and peak hour warrant criteria are not met. Furthermore, a traffic signal at this location is not recommended or necessary due to the following:

- Southbound left-turn movements from Maecliff Road onto Ferry Road are limited given that vehicles can make the northbound right-turn movement from Maecliff Road onto Warrenville to travel to the east towards the signalized intersection of Warrenville Road with Ferry Road/Mill Street.
- The office and hospitality land-uses located to the south of the subject development are already provided with signalized access to Ferry Road and Mill Street via Bella Vista Parkway.
- The signal would provide less than acceptable traffic signal spacing (1,000 feet) to the adjacent traffic signals along Ferry Road.

## Parking Evaluation

As previously indicated, the proposed development will have approximately 91 townhome units consisting of 73 three-bedroom units and 18 two-bedroom units. Parking will be provided via a total of 400 parking spaces of which 36 will be guest parking spaces.

In order to determine the projected parking demand of the proposed development, the parking demand was estimated based on the City of Warrenville Code of Ordinances, the Cantera Development Control Regulations, and information published in the Institute of Transportation Engineers' (ITE) *Parking Generation Manual*, 6<sup>th</sup> Edition. The parking demand for the proposed development is as follows:

### *Parking Requirements of Proposed Development per City Code*

- Multifamily Housing (91 units)
  - One parking space per bedroom

Based on the requirements of the City of Warrenville, with 73 three-bedroom units and 18 two-bedroom units, a total of 255 parking spaces will be required.

### *Cantera Development Control Regulations*

- Multifamily Housing (91 units)
  - Four parking spaces per unit for three-bedroom units and three parking spaces per unit for two-bedroom units.

Based on the Cantera Development Control Regulations, the development is required to provide 346 parking spaces.

### *ITE Parking Generation Manual*

- Single Family Attached Housing (Land-Use Code 215)
  - Monday through Friday – 1.41 spaces per unit
  - Saturday – 1.31 spaces per unit

Based the rates published in the ITE *Parking Generation Manual*, the development is anticipated to have a peak parking demand of 129 spaces, occurring on a weekday. It should be noted that this parking demand is inclusive of guest parking.

As such, the proposed 400 parking spaces exceed the City Code and Cantera Development Code Regulations and will be adequate in accommodating the estimated peak parking demand based on the ITE *Parking Generation Manual*.

## 6. Conclusion

Based on the preceding analyses and recommendations, the following conclusions have been made:

- The study area intersections have sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no roadway or traffic control improvements will be required.
- The proposed development is projected to generate approximately 75 percent less peak hour trips and 50 percent fewer daily trips than the previously approved 125,000 square foot office space.
- Access to the development is proposed to be provided via four access drives generally located on the east side of Maecliff Drive and spaced approximately equal distance to one another.
  - All four access drives will provide one inbound lane and one outbound lane with the outbound lane under stop sign control.
  - The proposed access system will be adequate in accommodating the proposed development-generated traffic and will provide enhanced site access flexibility.
- The Maecliff Drive intersections with Ferry Road and Warrenville Road have sufficient reserve capacity to accommodate the traffic generated by the proposed development and the additional traffic will have a limited impact on the traffic currently generated by the two hotels which also have access via Maecliff Drive.
- The total projected traffic volumes at the intersection of Ferry Road with Maecliff Drive/Cantera Drive will not warrant the provision of a traffic signal.
- The 400 proposed parking spaces will meet the City of Warrenville Code and Cantera Development Control Regulations and will accommodate the parking estimated to be generated by the proposed development.

# Appendix

Traffic Count Summary Sheets

Site Plan

CMAP 2050 Projections Letter

Level of Service Criteria

Capacity Analysis Summary Sheets

## Traffic Count Summary Sheets



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Count Name: Warrenville Road with Ferry Road  
TMC  
Site Code:  
Start Date: 05/06/2025  
Page No: 1

### Turning Movement Data

Start Time	Ferry Road Eastbound						Warrenville Road Westbound						Mill Street Northbound						Warrenville Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	4	73	16	0	93	0	23	44	67	0	134	0	6	40	29	0	75	0	84	39	2	0	125	427
7:15 AM	0	3	125	18	0	146	0	28	69	83	0	180	0	3	45	37	0	85	0	100	56	3	0	159	570
7:30 AM	0	2	156	14	0	172	0	45	86	79	0	210	0	4	41	44	0	89	0	92	61	2	0	155	626
7:45 AM	0	5	168	16	0	189	0	44	102	86	0	232	0	12	54	40	0	106	0	97	53	3	0	153	680
Hourly Total	0	14	522	64	0	600	0	140	301	315	0	756	0	25	180	150	0	355	0	373	209	10	0	592	2303
8:00 AM	0	4	138	11	0	153	0	26	94	81	0	201	0	4	45	36	0	85	0	97	86	5	0	188	627
8:15 AM	0	6	145	14	0	165	0	39	88	53	0	180	1	8	51	28	0	88	0	88	54	4	0	146	579
8:30 AM	0	9	98	8	0	115	0	24	88	79	0	191	0	11	31	25	0	67	0	99	61	3	0	163	536
8:45 AM	0	12	73	8	0	93	0	33	75	48	0	156	0	9	48	21	0	78	0	82	62	1	0	145	472
Hourly Total	0	31	454	41	0	526	0	122	345	261	0	728	1	32	175	110	0	318	0	366	263	13	0	642	2214
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	10	98	11	0	119	0	27	124	128	0	279	0	16	71	33	0	120	0	69	53	2	0	124	642
4:15 PM	0	10	109	13	0	132	0	75	147	88	0	310	0	6	87	30	0	123	0	69	77	2	2	148	713
4:30 PM	0	7	120	20	0	147	1	39	113	102	0	255	0	13	96	33	0	142	0	62	53	3	0	118	662
4:45 PM	1	8	122	22	0	153	0	49	110	103	0	262	0	14	92	40	0	146	0	42	53	2	0	97	658
Hourly Total	1	35	449	66	0	551	1	190	494	421	0	1106	0	49	346	136	0	531	0	242	236	9	2	487	2675
5:00 PM	0	7	123	21	0	151	0	63	132	122	0	317	0	20	106	45	0	171	0	47	42	0	0	89	728
5:15 PM	0	14	110	27	0	151	0	60	152	125	0	337	0	18	67	29	0	114	0	59	46	1	0	106	708
5:30 PM	0	5	86	19	0	110	0	40	149	84	0	273	0	5	48	35	0	88	0	51	58	2	0	111	582
5:45 PM	0	4	79	21	0	104	0	29	95	91	0	215	0	8	41	34	0	83	0	28	40	2	0	70	472
Hourly Total	0	30	398	88	0	516	0	192	528	422	0	1142	0	51	262	143	0	456	0	185	186	5	0	376	2490
Grand Total	1	110	1823	259	0	2193	1	644	1668	1419	0	3732	1	157	963	539	0	1660	0	1166	894	37	2	2097	9682
Approach %	0.0	5.0	83.1	11.8	-	-	0.0	17.3	44.7	38.0	-	-	0.1	9.5	58.0	32.5	-	-	0.0	55.6	42.6	1.8	-	-	-
Total %	0.0	1.1	18.8	2.7	-	22.7	0.0	6.7	17.2	14.7	-	38.5	0.0	1.6	9.9	5.6	-	17.1	0.0	12.0	9.2	0.4	-	21.7	-
Lights	1	110	1806	257	-	2174	1	641	1641	1393	-	3676	1	153	948	536	-	1638	0	1145	888	37	-	2070	9558
% Lights	100.0	100.0	99.1	99.2	-	99.1	100.0	99.5	98.4	98.2	-	98.5	100.0	97.5	98.4	99.4	-	98.7	-	98.2	99.3	100.0	-	98.7	98.7
Buses	0	0	4	1	-	5	0	2	4	9	-	15	0	1	0	0	-	1	0	3	0	0	-	3	24
% Buses	0.0	0.0	0.2	0.4	-	0.2	0.0	0.3	0.2	0.6	-	0.4	0.0	0.6	0.0	0.0	-	0.1	-	0.3	0.0	0.0	-	0.1	0.2
Single-Unit Trucks	0	0	9	0	-	9	0	1	7	15	-	23	0	2	12	2	-	16	0	16	6	0	-	22	70
% Single-Unit Trucks	0.0	0.0	0.5	0.0	-	0.4	0.0	0.2	0.4	1.1	-	0.6	0.0	1.3	1.2	0.4	-	1.0	-	1.4	0.7	0.0	-	1.0	0.7
Articulated Trucks	0	0	4	1	-	5	0	0	7	2	-	9	0	1	3	1	-	5	0	2	0	0	-	2	21
% Articulated Trucks	0.0	0.0	0.2	0.4	-	0.2	0.0	0.0	0.4	0.1	-	0.2	0.0	0.6	0.3	0.2	-	0.3	-	0.2	0.0	0.0	-	0.1	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	9	0	-	9	0	0	0	0	-	0	0	0	0	0	-	0	9

% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.5	0.0	-	0.2	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Count Name: Warrenville Road with Ferry Road  
TMC  
Site Code:  
Start Date: 05/06/2025  
Page No: 3

### Turning Movement Peak Hour Data (7:30 AM)

Start Time	Ferry Road Eastbound						Warrenville Road Westbound						Mill Street Northbound						Warrenville Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:30 AM	0	2	156	14	0	172	0	45	86	79	0	210	0	4	41	44	0	89	0	92	61	2	0	155	626
7:45 AM	0	5	168	16	0	189	0	44	102	86	0	232	0	12	54	40	0	106	0	97	53	3	0	153	680
8:00 AM	0	4	138	11	0	153	0	26	94	81	0	201	0	4	45	36	0	85	0	97	86	5	0	188	627
8:15 AM	0	6	145	14	0	165	0	39	88	53	0	180	1	8	51	28	0	88	0	88	54	4	0	146	579
Total	0	17	607	55	0	679	0	154	370	299	0	823	1	28	191	148	0	368	0	374	254	14	0	642	2512
Approach %	0.0	2.5	89.4	8.1	-	-	0.0	18.7	45.0	36.3	-	-	0.3	7.6	51.9	40.2	-	-	0.0	58.3	39.6	2.2	-	-	-
Total %	0.0	0.7	24.2	2.2	-	27.0	0.0	6.1	14.7	11.9	-	32.8	0.0	1.1	7.6	5.9	-	14.6	0.0	14.9	10.1	0.6	-	25.6	-
PHF	0.000	0.708	0.903	0.859	-	0.898	0.000	0.856	0.907	0.869	-	0.887	0.250	0.583	0.884	0.841	-	0.868	0.000	0.964	0.738	0.700	-	0.854	0.924
Lights	0	17	600	54	-	671	0	154	365	290	-	809	1	26	189	148	-	364	0	363	250	14	-	627	2471
% Lights	-	100.0	98.8	98.2	-	98.8	-	100.0	98.6	97.0	-	98.3	100.0	92.9	99.0	100.0	-	98.9	-	97.1	98.4	100.0	-	97.7	98.4
Buses	0	0	4	0	-	4	0	0	1	5	-	6	0	1	0	0	-	1	0	2	0	0	-	2	13
% Buses	-	0.0	0.7	0.0	-	0.6	-	0.0	0.3	1.7	-	0.7	0.0	3.6	0.0	0.0	-	0.3	-	0.5	0.0	0.0	-	0.3	0.5
Single-Unit Trucks	0	0	3	0	-	3	0	0	2	3	-	5	0	1	2	0	-	3	0	9	4	0	-	13	24
% Single-Unit Trucks	-	0.0	0.5	0.0	-	0.4	-	0.0	0.5	1.0	-	0.6	0.0	3.6	1.0	0.0	-	0.8	-	2.4	1.6	0.0	-	2.0	1.0
Articulated Trucks	0	0	0	1	-	1	0	0	2	1	-	3	0	0	0	0	-	0	0	0	0	0	-	0	4
% Articulated Trucks	-	0.0	0.0	1.8	-	0.1	-	0.0	0.5	0.3	-	0.4	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Count Name: Warrenville Road with Ferry Road  
TMC  
Site Code:  
Start Date: 05/06/2025  
Page No: 4

### Turning Movement Peak Hour Data (4:15 PM)

Start Time	Ferry Road Eastbound						Warrenville Road Westbound						Mill Street Northbound						Warrenville Road Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:15 PM	0	10	109	13	0	132	0	75	147	88	0	310	0	6	87	30	0	123	0	69	77	2	2	148	713
4:30 PM	0	7	120	20	0	147	1	39	113	102	0	255	0	13	96	33	0	142	0	62	53	3	0	118	662
4:45 PM	1	8	122	22	0	153	0	49	110	103	0	262	0	14	92	40	0	146	0	42	53	2	0	97	658
5:00 PM	0	7	123	21	0	151	0	63	132	122	0	317	0	20	106	45	0	171	0	47	42	0	0	89	728
<b>Total</b>	<b>1</b>	<b>32</b>	<b>474</b>	<b>76</b>	<b>0</b>	<b>583</b>	<b>1</b>	<b>226</b>	<b>502</b>	<b>415</b>	<b>0</b>	<b>1144</b>	<b>0</b>	<b>53</b>	<b>381</b>	<b>148</b>	<b>0</b>	<b>582</b>	<b>0</b>	<b>220</b>	<b>225</b>	<b>7</b>	<b>2</b>	<b>452</b>	<b>2761</b>
Approach %	0.2	5.5	81.3	13.0	-	-	0.1	19.8	43.9	36.3	-	-	0.0	9.1	65.5	25.4	-	-	0.0	48.7	49.8	1.5	-	-	-
Total %	0.0	1.2	17.2	2.8	-	21.1	0.0	8.2	18.2	15.0	-	41.4	0.0	1.9	13.8	5.4	-	21.1	0.0	8.0	8.1	0.3	-	16.4	-
PHF	0.250	0.800	0.963	0.864	-	0.953	0.250	0.753	0.854	0.850	-	0.902	0.000	0.663	0.899	0.822	-	0.851	0.000	0.797	0.731	0.583	-	0.764	0.948
Lights	1	32	472	76	-	581	1	226	495	409	-	1131	0	51	377	146	-	574	0	218	225	7	-	450	2736
% Lights	100.0	100.0	99.6	100.0	-	99.7	100.0	100.0	98.6	98.6	-	98.9	-	96.2	99.0	98.6	-	98.6	-	99.1	100.0	100.0	-	99.6	99.1
Buses	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.2	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	3	6	-	9	0	1	4	2	-	7	0	0	0	0	-	0	16
% Single-Unit Trucks	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.6	1.4	-	0.8	-	1.9	1.0	1.4	-	1.2	-	0.0	0.0	0.0	-	0.0	0.6
Articulated Trucks	0	0	2	0	-	2	0	0	3	0	-	3	0	1	0	0	-	1	0	2	0	0	-	2	8
% Articulated Trucks	0.0	0.0	0.4	0.0	-	0.3	0.0	0.0	0.6	0.0	-	0.3	-	1.9	0.0	0.0	-	0.2	-	0.9	0.0	0.0	-	0.4	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Count Name: Ferry Road with Maecliff  
Drive/Cantera Drive TMC  
Site Code:  
Start Date: 05/06/2025  
Page No: 1

### Turning Movement Data

Start Time	Ferry Road Eastbound						Ferry Road Westbound						Cantera Drive Northbound						Maecliff Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	3	84	2	0	89	0	4	50	1	0	55	0	0	0	1	0	1	0	6	0	5	0	11	156
7:15 AM	0	1	137	1	0	139	0	1	79	1	0	81	0	0	0	0	0	0	0	3	0	4	0	7	227
7:30 AM	2	2	169	4	0	177	0	2	94	2	0	98	1	0	0	1	0	2	0	3	0	2	0	5	282
7:45 AM	1	8	187	4	0	200	0	0	116	2	0	118	0	1	0	0	0	1	0	0	0	8	0	8	327
Hourly Total	3	14	577	11	0	605	0	7	339	6	0	352	1	1	0	2	0	4	0	12	0	19	0	31	992
8:00 AM	1	4	153	5	0	163	0	2	102	0	0	104	0	0	0	0	0	0	0	0	0	8	0	8	275
8:15 AM	0	5	168	8	0	181	0	4	97	1	0	102	0	0	0	0	0	0	0	3	0	8	0	11	294
8:30 AM	0	2	112	16	0	130	1	4	96	1	0	102	0	0	0	0	0	0	0	1	0	6	0	7	239
8:45 AM	0	1	94	3	0	98	0	3	81	0	0	84	0	2	0	1	0	3	0	2	0	1	0	3	188
Hourly Total	1	12	527	32	0	572	1	13	376	2	0	392	0	2	0	1	0	3	0	6	0	23	0	29	996
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	3	113	2	0	118	0	1	138	3	0	142	0	7	0	1	0	8	0	3	0	2	0	5	273
4:15 PM	0	3	128	0	0	131	0	1	154	3	0	158	0	5	0	3	0	8	0	0	0	5	1	5	302
4:30 PM	1	5	139	2	0	147	0	1	124	3	0	128	0	7	0	6	0	13	0	5	0	2	0	7	295
4:45 PM	0	5	140	3	0	148	1	2	125	1	0	129	0	3	0	6	1	9	0	0	0	5	0	5	291
Hourly Total	1	16	520	7	0	544	1	5	541	10	0	557	0	22	0	16	1	38	0	8	0	14	1	22	1161
5:00 PM	1	13	151	1	0	166	2	0	149	3	0	154	0	10	0	5	0	15	0	1	0	8	1	9	344
5:15 PM	0	6	147	0	0	153	0	0	169	4	0	173	0	8	0	2	1	10	0	0	0	4	2	4	340
5:30 PM	0	7	102	1	0	110	1	0	153	2	0	156	0	3	0	0	0	3	0	5	0	4	3	9	278
5:45 PM	0	5	116	0	0	121	0	0	101	3	0	104	0	2	1	1	0	4	0	0	0	3	4	3	232
Hourly Total	1	31	516	2	0	550	3	0	572	12	0	587	0	23	1	8	1	32	0	6	0	19	10	25	1194
Grand Total	6	73	2140	52	0	2271	5	25	1828	30	0	1888	1	48	1	27	2	77	0	32	0	75	11	107	4343
Approach %	0.3	3.2	94.2	2.3	-	-	0.3	1.3	96.8	1.6	-	-	1.3	62.3	1.3	35.1	-	-	0.0	29.9	0.0	70.1	-	-	-
Total %	0.1	1.7	49.3	1.2	-	52.3	0.1	0.6	42.1	0.7	-	43.5	0.0	1.1	0.0	0.6	-	1.8	0.0	0.7	0.0	1.7	-	2.5	-
Lights	6	72	2113	51	-	2242	5	25	1798	30	-	1858	1	47	1	27	-	76	0	32	0	75	-	107	4283
% Lights	100.0	98.6	98.7	98.1	-	98.7	100.0	100.0	98.4	100.0	-	98.4	100.0	97.9	100.0	100.0	-	98.7	-	100.0	-	100.0	-	100.0	98.6
Buses	0	1	5	0	-	6	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	11
% Buses	0.0	1.4	0.2	0.0	-	0.3	0.0	0.0	0.3	0.0	-	0.3	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	11	1	-	12	0	0	7	0	-	7	0	1	0	0	-	1	0	0	0	0	-	0	20
% Single-Unit Trucks	0.0	0.0	0.5	1.9	-	0.5	0.0	0.0	0.4	0.0	-	0.4	0.0	2.1	0.0	0.0	-	1.3	-	0.0	-	0.0	-	0.0	0.5
Articulated Trucks	0	0	11	0	-	11	0	0	9	0	-	9	0	0	0	0	-	0	0	0	0	0	-	0	20
% Articulated Trucks	0.0	0.0	0.5	0.0	-	0.5	0.0	0.0	0.5	0.0	-	0.5	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.5
Bicycles on Road	0	0	0	0	-	0	0	0	9	0	-	9	0	0	0	0	-	0	0	0	0	0	-	0	9

% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.5	0.0	-	0.5	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.2
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	11	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-



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Count Name: Ferry Road with Maecliff  
Drive/Cantera Drive TMC  
Site Code:  
Start Date: 05/06/2025  
Page No: 3

### Turning Movement Peak Hour Data (7:30 AM)

Start Time	Ferry Road Eastbound						Ferry Road Westbound						Cantera Drive Northbound						Maecliff Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:30 AM	2	2	169	4	0	177	0	2	94	2	0	98	1	0	0	1	0	2	0	3	0	2	0	5	282
7:45 AM	1	8	187	4	0	200	0	0	116	2	0	118	0	1	0	0	0	1	0	0	0	8	0	8	327
8:00 AM	1	4	153	5	0	163	0	2	102	0	0	104	0	0	0	0	0	0	0	0	0	8	0	8	275
8:15 AM	0	5	168	8	0	181	0	4	97	1	0	102	0	0	0	0	0	0	0	3	0	8	0	11	294
Total	4	19	677	21	0	721	0	8	409	5	0	422	1	1	0	1	0	3	0	6	0	26	0	32	1178
Approach %	0.6	2.6	93.9	2.9	-	-	0.0	1.9	96.9	1.2	-	-	33.3	33.3	0.0	33.3	-	-	0.0	18.8	0.0	81.3	-	-	-
Total %	0.3	1.6	57.5	1.8	-	61.2	0.0	0.7	34.7	0.4	-	35.8	0.1	0.1	0.0	0.1	-	0.3	0.0	0.5	0.0	2.2	-	2.7	-
PHF	0.500	0.594	0.905	0.656	-	0.901	0.000	0.500	0.881	0.625	-	0.894	0.250	0.250	0.000	0.250	-	0.375	0.000	0.500	0.000	0.813	-	0.727	0.901
Lights	4	19	665	21	-	709	0	8	402	5	-	415	1	1	0	1	-	3	0	6	0	26	-	32	1159
% Lights	100.0	100.0	98.2	100.0	-	98.3	-	100.0	98.3	100.0	-	98.3	100.0	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	98.4
Buses	0	0	4	0	-	4	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	6
% Buses	0.0	0.0	0.6	0.0	-	0.6	-	0.0	0.5	0.0	-	0.5	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.5
Single-Unit Trucks	0	0	3	0	-	3	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	5
% Single-Unit Trucks	0.0	0.0	0.4	0.0	-	0.4	-	0.0	0.5	0.0	-	0.5	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.4
Articulated Trucks	0	0	5	0	-	5	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	8
% Articulated Trucks	0.0	0.0	0.7	0.0	-	0.7	-	0.0	0.7	0.0	-	0.7	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.7
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Count Name: Ferry Road with Maecliff  
Drive/Cantera Drive TMC  
Site Code:  
Start Date: 05/06/2025  
Page No: 4

### Turning Movement Peak Hour Data (4:15 PM)

Start Time	Ferry Road Eastbound						Ferry Road Westbound						Cantera Drive Northbound						Maecliff Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:15 PM	0	3	128	0	0	131	0	1	154	3	0	158	0	5	0	3	0	8	0	0	0	5	1	5	302
4:30 PM	1	5	139	2	0	147	0	1	124	3	0	128	0	7	0	6	0	13	0	5	0	2	0	7	295
4:45 PM	0	5	140	3	0	148	1	2	125	1	0	129	0	3	0	6	1	9	0	0	0	5	0	5	291
5:00 PM	1	13	151	1	0	166	2	0	149	3	0	154	0	10	0	5	0	15	0	1	0	8	1	9	344
<b>Total</b>	<b>2</b>	<b>26</b>	<b>558</b>	<b>6</b>	<b>0</b>	<b>592</b>	<b>3</b>	<b>4</b>	<b>552</b>	<b>10</b>	<b>0</b>	<b>569</b>	<b>0</b>	<b>25</b>	<b>0</b>	<b>20</b>	<b>1</b>	<b>45</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>20</b>	<b>2</b>	<b>26</b>	<b>1232</b>
Approach %	0.3	4.4	94.3	1.0	-	-	0.5	0.7	97.0	1.8	-	-	0.0	55.6	0.0	44.4	-	-	0.0	23.1	0.0	76.9	-	-	-
Total %	0.2	2.1	45.3	0.5	-	48.1	0.2	0.3	44.8	0.8	-	46.2	0.0	2.0	0.0	1.6	-	3.7	0.0	0.5	0.0	1.6	-	2.1	-
PHF	0.500	0.500	0.924	0.500	-	0.892	0.375	0.500	0.896	0.833	-	0.900	0.000	0.625	0.000	0.833	-	0.750	0.000	0.300	0.000	0.625	-	0.722	0.895
Lights	2	25	556	5	-	588	3	4	546	10	-	563	0	25	0	20	-	45	0	6	0	20	-	26	1222
% Lights	100.0	96.2	99.6	83.3	-	99.3	100.0	100.0	98.9	100.0	-	98.9	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	99.2
Buses	0	1	0	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
% Buses	0.0	3.8	0.0	0.0	-	0.2	0.0	0.0	0.2	0.0	-	0.2	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.2
Single-Unit Trucks	0	0	1	1	-	2	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	3
% Single-Unit Trucks	0.0	0.0	0.2	16.7	-	0.3	0.0	0.0	0.2	0.0	-	0.2	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.2
Articulated Trucks	0	0	1	0	-	1	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	0	5
% Articulated Trucks	0.0	0.0	0.2	0.0	-	0.2	0.0	0.0	0.7	0.0	-	0.7	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Ferry Road with Chase Court/Bella  
Vista Pkwy TMC  
Site Code:  
Start Date: 05/06/2025  
Page No: 1

### Turning Movement Data

Start Time	Ferry Road Eastbound						Ferry Road Westbound						Bella Vista Pkwy Northbound						Chase Court Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	1	11	96	9	0	117	0	4	47	3	0	54	0	5	0	0	0	5	0	2	0	1	1	3	179
7:15 AM	2	11	125	20	0	158	0	8	66	8	0	82	0	3	0	0	0	3	0	1	0	1	2	2	245
7:30 AM	0	21	175	28	0	224	0	8	78	7	0	93	0	2	0	0	0	2	0	4	1	3	0	8	327
7:45 AM	0	18	205	32	0	255	0	15	93	18	0	126	0	1	0	0	0	1	0	2	0	2	3	4	386
Hourly Total	3	61	601	89	0	754	0	35	284	36	0	355	0	11	0	0	0	11	0	9	1	7	6	17	1137
8:00 AM	0	14	155	31	0	200	0	7	88	10	0	105	0	2	0	2	0	4	0	1	0	6	2	7	316
8:15 AM	2	14	178	19	0	213	0	8	81	15	0	104	0	4	2	2	0	8	0	1	0	3	3	4	329
8:30 AM	0	23	127	32	0	182	0	7	77	15	0	99	0	3	0	0	0	3	0	4	0	12	0	16	300
8:45 AM	1	24	93	16	0	134	0	7	62	15	0	84	0	1	0	0	0	1	0	5	0	6	0	11	230
Hourly Total	3	75	553	98	0	729	0	29	308	55	0	392	0	10	2	4	0	16	0	11	0	27	5	38	1175
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	1	3	95	3	0	102	0	0	140	5	0	145	0	31	0	13	0	44	0	12	0	11	0	23	314
4:15 PM	0	2	108	5	0	115	1	1	155	2	0	159	0	9	0	10	0	19	0	13	0	20	1	33	326
4:30 PM	0	6	115	7	0	128	0	1	129	4	0	134	0	23	0	19	0	42	0	11	0	15	3	26	330
4:45 PM	1	1	122	9	0	133	0	0	129	0	0	129	0	21	0	16	0	37	0	14	0	15	1	29	328
Hourly Total	2	12	440	24	0	478	1	2	553	11	0	567	0	84	0	58	0	142	0	50	0	61	5	111	1298
5:00 PM	0	5	137	9	0	151	0	0	161	1	0	162	0	15	0	11	0	26	0	15	0	19	3	34	373
5:15 PM	0	3	134	8	0	145	0	0	170	2	0	172	0	8	1	5	1	14	0	8	0	11	0	19	350
5:30 PM	0	1	104	5	0	110	0	2	154	4	0	160	0	14	0	7	0	21	0	5	0	10	4	15	306
5:45 PM	1	3	104	6	0	114	0	1	102	0	0	103	0	7	0	7	0	14	0	7	0	9	5	16	247
Hourly Total	1	12	479	28	0	520	0	3	587	7	0	597	0	44	1	30	1	75	0	35	0	49	12	84	1276
Grand Total	9	160	2073	239	0	2481	1	69	1732	109	0	1911	0	149	3	92	1	244	0	105	1	144	28	250	4886
Approach %	0.4	6.4	83.6	9.6	-	-	0.1	3.6	90.6	5.7	-	-	0.0	61.1	1.2	37.7	-	-	0.0	42.0	0.4	57.6	-	-	-
Total %	0.2	3.3	42.4	4.9	-	50.8	0.0	1.4	35.4	2.2	-	39.1	0.0	3.0	0.1	1.9	-	5.0	0.0	2.1	0.0	2.9	-	5.1	-
Lights	9	157	2045	237	-	2448	1	69	1704	109	-	1883	0	148	3	91	-	242	0	105	0	143	-	248	4821
% Lights	100.0	98.1	98.6	99.2	-	98.7	100.0	100.0	98.4	100.0	-	98.5	-	99.3	100.0	98.9	-	99.2	-	100.0	0.0	99.3	-	99.2	98.7
Buses	0	1	5	0	-	6	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	1	-	1	12
% Buses	0.0	0.6	0.2	0.0	-	0.2	0.0	0.0	0.3	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.7	-	0.4	0.2
Single-Unit Trucks	0	2	15	1	-	18	0	0	9	0	-	9	0	1	0	0	-	1	0	0	1	0	-	1	29
% Single-Unit Trucks	0.0	1.3	0.7	0.4	-	0.7	0.0	0.0	0.5	0.0	-	0.5	-	0.7	0.0	0.0	-	0.4	-	0.0	100.0	0.0	-	0.4	0.6
Articulated Trucks	0	0	8	0	-	8	0	0	6	0	-	6	0	0	0	1	-	1	0	0	0	0	-	0	15
% Articulated Trucks	0.0	0.0	0.4	0.0	-	0.3	0.0	0.0	0.3	0.0	-	0.3	-	0.0	0.0	1.1	-	0.4	-	0.0	0.0	0.0	-	0.0	0.3
Bicycles on Road	0	0	0	1	-	1	0	0	8	0	-	8	0	0	0	0	-	0	0	0	0	0	-	0	9

% Bicycles on Road	0.0	0.0	0.0	0.4	-	0.0	0.0	0.0	0.5	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2	
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	-	28	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-



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Count Name: Ferry Road with Chase Court/Bella  
Vista Pkwy TMC  
Site Code:  
Start Date: 05/06/2025  
Page No: 3

### Turning Movement Peak Hour Data (7:30 AM)

Start Time	Ferry Road Eastbound						Ferry Road Westbound						Bella Vista Pkwy Northbound						Chase Court Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:30 AM	0	21	175	28	0	224	0	8	78	7	0	93	0	2	0	0	0	2	0	4	1	3	0	8	327
7:45 AM	0	18	205	32	0	255	0	15	93	18	0	126	0	1	0	0	0	1	0	2	0	2	3	4	386
8:00 AM	0	14	155	31	0	200	0	7	88	10	0	105	0	2	0	2	0	4	0	1	0	6	2	7	316
8:15 AM	2	14	178	19	0	213	0	8	81	15	0	104	0	4	2	2	0	8	0	1	0	3	3	4	329
Total	2	67	713	110	0	892	0	38	340	50	0	428	0	9	2	4	0	15	0	8	1	14	8	23	1358
Approach %	0.2	7.5	79.9	12.3	-	-	0.0	8.9	79.4	11.7	-	-	0.0	60.0	13.3	26.7	-	-	0.0	34.8	4.3	60.9	-	-	-
Total %	0.1	4.9	52.5	8.1	-	65.7	0.0	2.8	25.0	3.7	-	31.5	0.0	0.7	0.1	0.3	-	1.1	0.0	0.6	0.1	1.0	-	1.7	-
PHF	0.250	0.798	0.870	0.859	-	0.875	0.000	0.633	0.914	0.694	-	0.849	0.000	0.563	0.250	0.500	-	0.469	0.000	0.500	0.250	0.583	-	0.719	0.880
Lights	2	66	699	110	-	877	0	38	333	50	-	421	0	9	2	3	-	14	0	8	0	13	-	21	1333
% Lights	100.0	98.5	98.0	100.0	-	98.3	-	100.0	97.9	100.0	-	98.4	-	100.0	100.0	75.0	-	93.3	-	100.0	0.0	92.9	-	91.3	98.2
Buses	0	1	4	0	-	5	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	1	-	1	8
% Buses	0.0	1.5	0.6	0.0	-	0.6	-	0.0	0.6	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	7.1	-	4.3	0.6
Single-Unit Trucks	0	0	6	0	-	6	0	0	4	0	-	4	0	0	0	0	-	0	0	0	1	0	-	1	11
% Single-Unit Trucks	0.0	0.0	0.8	0.0	-	0.7	-	0.0	1.2	0.0	-	0.9	-	0.0	0.0	0.0	-	0.0	-	0.0	100.0	0.0	-	4.3	0.8
Articulated Trucks	0	0	4	0	-	4	0	0	1	0	-	1	0	0	0	1	-	1	0	0	0	0	-	0	6
% Articulated Trucks	0.0	0.0	0.6	0.0	-	0.4	-	0.0	0.3	0.0	-	0.2	-	0.0	0.0	25.0	-	6.7	-	0.0	0.0	0.0	-	0.0	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Count Name: Ferry Road with Chase Court/Bella  
Vista Pkwy TMC  
Site Code:  
Start Date: 05/06/2025  
Page No: 4

### Turning Movement Peak Hour Data (4:15 PM)

Start Time	Ferry Road Eastbound						Ferry Road Westbound						Bella Vista Pkwy Northbound						Chase Court Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:15 PM	0	2	108	5	0	115	1	1	155	2	0	159	0	9	0	10	0	19	0	13	0	20	1	33	326
4:30 PM	0	6	115	7	0	128	0	1	129	4	0	134	0	23	0	19	0	42	0	11	0	15	3	26	330
4:45 PM	1	1	122	9	0	133	0	0	129	0	0	129	0	21	0	16	0	37	0	14	0	15	1	29	328
5:00 PM	0	5	137	9	0	151	0	0	161	1	0	162	0	15	0	11	0	26	0	15	0	19	3	34	373
<b>Total</b>	<b>1</b>	<b>14</b>	<b>482</b>	<b>30</b>	<b>0</b>	<b>527</b>	<b>1</b>	<b>2</b>	<b>574</b>	<b>7</b>	<b>0</b>	<b>584</b>	<b>0</b>	<b>68</b>	<b>0</b>	<b>56</b>	<b>0</b>	<b>124</b>	<b>0</b>	<b>53</b>	<b>0</b>	<b>69</b>	<b>8</b>	<b>122</b>	<b>1357</b>
Approach %	0.2	2.7	91.5	5.7	-	-	0.2	0.3	98.3	1.2	-	-	0.0	54.8	0.0	45.2	-	-	0.0	43.4	0.0	56.6	-	-	-
Total %	0.1	1.0	35.5	2.2	-	38.8	0.1	0.1	42.3	0.5	-	43.0	0.0	5.0	0.0	4.1	-	9.1	0.0	3.9	0.0	5.1	-	9.0	-
PHF	0.250	0.583	0.880	0.833	-	0.873	0.250	0.500	0.891	0.438	-	0.901	0.000	0.739	0.000	0.737	-	0.738	0.000	0.883	0.000	0.863	-	0.897	0.910
Lights	1	14	480	30	-	525	1	2	569	7	-	579	0	67	0	56	-	123	0	53	0	69	-	122	1349
% Lights	100.0	100.0	99.6	100.0	-	99.6	100.0	100.0	99.1	100.0	-	99.1	-	98.5	-	100.0	-	99.2	-	100.0	-	100.0	-	100.0	99.4
Buses	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Buses	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.2	0.0	-	0.2	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.1
Single-Unit Trucks	0	0	1	0	-	1	0	0	1	0	-	1	0	1	0	0	-	1	0	0	0	0	-	0	3
% Single-Unit Trucks	0.0	0.0	0.2	0.0	-	0.2	0.0	0.0	0.2	0.0	-	0.2	-	1.5	-	0.0	-	0.8	-	0.0	-	0.0	-	0.0	0.2
Articulated Trucks	0	0	1	0	-	1	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	4
% Articulated Trucks	0.0	0.0	0.2	0.0	-	0.2	0.0	0.0	0.5	0.0	-	0.5	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Count Name: Maecliff Drive with Warrenville  
Road TMC  
Site Code:  
Start Date: 05/06/2025  
Page No: 1

### Turning Movement Data

Start Time	Warrenville Road Eastbound						Warrenville Road Westbound						Maecliff Drive Northbound						Lorraine Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00 AM	0	1	139	1	0	141	0	0	103	1	0	104	0	0	0	0	0	0	0	1	0	0	0	1	246
7:15 AM	0	0	173	0	0	173	0	0	135	0	0	135	0	0	0	0	1	0	0	0	0	3	0	3	311
7:30 AM	0	0	180	0	0	180	0	0	117	0	0	117	0	0	0	0	1	0	0	2	0	2	0	4	301
7:45 AM	0	0	201	1	0	202	0	0	148	0	0	148	0	0	0	0	0	0	0	1	0	1	0	2	352
Hourly Total	0	1	693	2	0	696	0	0	503	1	0	504	0	0	0	0	2	0	0	4	0	6	0	10	1210
8:00 AM	0	1	169	4	1	174	0	0	131	1	0	132	0	0	0	0	0	0	0	1	0	4	0	5	311
8:15 AM	0	4	190	1	0	195	0	0	116	0	0	116	0	1	1	0	0	2	0	0	0	2	0	2	315
8:30 AM	0	0	156	1	0	157	0	0	125	0	0	125	0	0	0	1	1	1	0	1	0	2	0	3	286
8:45 AM	0	0	156	0	1	156	0	0	112	0	0	112	0	0	0	0	2	0	0	0	0	2	0	2	270
Hourly Total	0	5	671	6	2	682	0	0	484	1	0	485	0	1	1	1	3	3	0	2	0	10	0	12	1182
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	1	128	1	0	130	0	1	203	6	0	210	0	0	0	0	5	0	0	0	0	0	0	0	340
4:15 PM	0	0	153	2	0	155	0	0	206	0	0	206	0	0	0	0	0	0	0	1	0	2	0	3	364
4:30 PM	0	2	128	0	0	130	0	0	208	2	0	210	0	0	0	1	2	1	0	1	0	1	0	2	343
4:45 PM	0	6	104	1	0	111	0	0	205	1	1	206	0	0	1	1	2	2	0	0	0	2	0	2	321
Hourly Total	0	9	513	4	0	526	0	1	822	9	1	832	0	0	1	2	9	3	0	2	0	5	0	7	1368
5:00 PM	0	4	100	0	0	104	0	0	231	1	0	232	0	0	0	0	2	0	0	1	0	1	0	2	338
5:15 PM	0	4	109	2	0	115	0	0	216	2	1	218	0	1	0	0	3	1	0	0	0	2	1	2	336
5:30 PM	0	3	109	0	0	112	0	0	152	0	0	152	0	0	0	0	2	0	0	1	0	2	0	3	267
5:45 PM	0	0	82	1	0	83	0	0	138	0	0	138	0	1	1	0	6	2	0	0	0	1	0	1	224
Hourly Total	0	11	400	3	0	414	0	0	737	3	1	740	0	2	1	0	13	3	0	2	0	6	1	8	1165
Grand Total	0	26	2277	15	2	2318	0	1	2546	14	2	2561	0	3	3	3	27	9	0	10	0	27	1	37	4925
Approach %	0.0	1.1	98.2	0.6	-	-	0.0	0.0	99.4	0.5	-	-	0.0	33.3	33.3	33.3	-	-	0.0	27.0	0.0	73.0	-	-	-
Total %	0.0	0.5	46.2	0.3	-	47.1	0.0	0.0	51.7	0.3	-	52.0	0.0	0.1	0.1	0.1	-	0.2	0.0	0.2	0.0	0.5	-	0.8	-
Lights	0	26	2245	15	-	2286	0	1	2505	14	-	2520	0	3	2	3	-	8	0	9	0	26	-	35	4849
% Lights	-	100.0	98.6	100.0	-	98.6	-	100.0	98.4	100.0	-	98.4	-	100.0	66.7	100.0	-	88.9	-	90.0	-	96.3	-	94.6	98.5
Buses	0	0	5	0	-	5	0	0	12	0	-	12	0	0	0	0	-	0	0	0	0	0	-	0	17
% Buses	-	0.0	0.2	0.0	-	0.2	-	0.0	0.5	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.3
Single-Unit Trucks	0	0	21	0	-	21	0	0	20	0	-	20	0	0	0	0	-	0	0	1	0	0	-	1	42
% Single-Unit Trucks	-	0.0	0.9	0.0	-	0.9	-	0.0	0.8	0.0	-	0.8	-	0.0	0.0	0.0	-	0.0	-	10.0	-	0.0	-	2.7	0.9
Articulated Trucks	0	0	6	0	-	6	0	0	8	0	-	8	0	0	0	0	-	0	0	0	0	0	-	0	14
% Articulated Trucks	-	0.0	0.3	0.0	-	0.3	-	0.0	0.3	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.3
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	1	-	1	3

% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	33.3	0.0	-	11.1	-	0.0	-	3.7	-	2.7	0.1
Pedestrians	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	27	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Maecliff Drive with Warrenville  
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Site Code:  
Start Date: 05/06/2025  
Page No: 3

### Turning Movement Peak Hour Data (7:30 AM)

Start Time	Warrenville Road Eastbound						Warrenville Road Westbound						Maecliff Drive Northbound						Lorraine Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:30 AM	0	0	180	0	0	180	0	0	117	0	0	117	0	0	0	0	1	0	0	2	0	2	0	4	301
7:45 AM	0	0	201	1	0	202	0	0	148	0	0	148	0	0	0	0	0	0	0	1	0	1	0	2	352
8:00 AM	0	1	169	4	1	174	0	0	131	1	0	132	0	0	0	0	0	0	0	1	0	4	0	5	311
8:15 AM	0	4	190	1	0	195	0	0	116	0	0	116	0	1	1	0	0	2	0	0	0	2	0	2	315
Total	0	5	740	6	1	751	0	0	512	1	0	513	0	1	1	0	1	2	0	4	0	9	0	13	1279
Approach %	0.0	0.7	98.5	0.8	-	-	0.0	0.0	99.8	0.2	-	-	0.0	50.0	50.0	0.0	-	-	0.0	30.8	0.0	69.2	-	-	-
Total %	0.0	0.4	57.9	0.5	-	58.7	0.0	0.0	40.0	0.1	-	40.1	0.0	0.1	0.1	0.0	-	0.2	0.0	0.3	0.0	0.7	-	1.0	-
PHF	0.000	0.313	0.920	0.375	-	0.929	0.000	0.000	0.865	0.250	-	0.867	0.000	0.250	0.250	0.000	-	0.250	0.000	0.500	0.000	0.563	-	0.650	0.908
Lights	0	5	725	6	-	736	0	0	501	1	-	502	0	1	1	0	-	2	0	3	0	9	-	12	1252
% Lights	-	100.0	98.0	100.0	-	98.0	-	-	97.9	100.0	-	97.9	-	100.0	100.0	-	-	100.0	-	75.0	-	100.0	-	92.3	97.9
Buses	0	0	3	0	-	3	0	0	6	0	-	6	0	0	0	0	-	0	0	0	0	0	-	0	9
% Buses	-	0.0	0.4	0.0	-	0.4	-	-	1.2	0.0	-	1.2	-	0.0	0.0	-	-	0.0	-	0.0	-	0.0	-	0.0	0.7
Single-Unit Trucks	0	0	11	0	-	11	0	0	5	0	-	5	0	0	0	0	-	0	0	1	0	0	-	1	17
% Single-Unit Trucks	-	0.0	1.5	0.0	-	1.5	-	-	1.0	0.0	-	1.0	-	0.0	0.0	-	-	0.0	-	25.0	-	0.0	-	7.7	1.3
Articulated Trucks	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.1	0.0	-	0.1	-	-	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	-	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-



Kenig Lindgren O'Hara Aboona, Inc.  
9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018  
(847)518-9990 bmay@kloainc.com

Count Name: Maecliff Drive with Warrenville  
Road TMC  
Site Code:  
Start Date: 05/06/2025  
Page No: 4

### Turning Movement Peak Hour Data (4:15 PM)

Start Time	Warrenville Road Eastbound						Warrenville Road Westbound						Maecliff Drive Northbound						Lorraine Avenue Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:15 PM	0	0	153	2	0	155	0	0	206	0	0	206	0	0	0	0	0	0	0	1	0	2	0	3	364
4:30 PM	0	2	128	0	0	130	0	0	208	2	0	210	0	0	0	1	2	1	0	1	0	1	0	2	343
4:45 PM	0	6	104	1	0	111	0	0	205	1	1	206	0	0	1	1	2	2	0	0	0	2	0	2	321
5:00 PM	0	4	100	0	0	104	0	0	231	1	0	232	0	0	0	0	2	0	0	1	0	1	0	2	338
<b>Total</b>	<b>0</b>	<b>12</b>	<b>485</b>	<b>3</b>	<b>0</b>	<b>500</b>	<b>0</b>	<b>0</b>	<b>850</b>	<b>4</b>	<b>1</b>	<b>854</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>6</b>	<b>3</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>9</b>	<b>1366</b>
Approach %	0.0	2.4	97.0	0.6	-	-	0.0	0.0	99.5	0.5	-	-	0.0	0.0	33.3	66.7	-	-	0.0	33.3	0.0	66.7	-	-	-
Total %	0.0	0.9	35.5	0.2	-	36.6	0.0	0.0	62.2	0.3	-	62.5	0.0	0.0	0.1	0.1	-	0.2	0.0	0.2	0.0	0.4	-	0.7	-
PHF	0.000	0.500	0.792	0.375	-	0.806	0.000	0.000	0.920	0.500	-	0.920	0.000	0.000	0.250	0.500	-	0.375	0.000	0.750	0.000	0.750	-	0.750	0.938
Lights	0	12	483	3	-	498	0	0	840	4	-	844	0	0	1	2	-	3	0	3	0	6	-	9	1354
% Lights	-	100.0	99.6	100.0	-	99.6	-	-	98.8	100.0	-	98.8	-	-	100.0	100.0	-	100.0	-	100.0	-	100.0	-	100.0	99.1
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Buses	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	7	0	-	7	0	0	0	0	-	0	0	0	0	0	-	0	7
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	-	0.8	0.0	-	0.8	-	-	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.5
Articulated Trucks	0	0	2	0	-	2	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	5
% Articulated Trucks	-	0.0	0.4	0.0	-	0.4	-	-	0.4	0.0	-	0.4	-	-	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.4
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	6	-	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-



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Count Name: Old Warrenville Road with  
Warrenville Road TMC  
Site Code:  
Start Date: 05/06/2025  
Page No: 1

### Turning Movement Data

Start Time	Old Warrenville Road Westbound					Warrenville Road Northbound					Warrenville Road Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	
7:00 AM	0	0	2	0	2	0	109	4	0	113	0	8	130	0	138	253
7:15 AM	0	0	7	0	7	0	126	4	0	130	0	11	162	1	173	310
7:30 AM	0	0	2	0	2	0	114	6	0	120	0	4	170	0	174	296
7:45 AM	0	0	7	0	7	0	142	6	0	148	0	14	178	0	192	347
Hourly Total	0	0	18	0	18	0	491	20	0	511	0	37	640	1	677	1206
8:00 AM	0	0	10	0	10	0	123	7	0	130	0	14	164	0	178	318
8:15 AM	0	0	12	0	12	0	102	12	0	114	0	23	160	0	183	309
8:30 AM	0	0	18	0	18	0	108	11	0	119	0	13	156	0	169	306
8:45 AM	0	0	13	0	13	0	98	15	0	113	0	10	147	0	157	283
Hourly Total	0	0	53	0	53	0	431	45	0	476	0	60	627	0	687	1216
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	0	12	0	12	0	204	6	1	210	1	6	121	0	128	350
4:15 PM	0	0	19	0	19	0	185	9	0	194	0	5	153	0	158	371
4:30 PM	0	0	7	0	7	0	196	9	0	205	0	10	120	0	130	342
4:45 PM	0	0	15	0	15	0	201	9	0	210	2	5	99	0	106	331
Hourly Total	0	0	53	0	53	0	786	33	1	819	3	26	493	0	522	1394
5:00 PM	0	0	13	0	13	0	224	14	0	238	0	5	98	0	103	354
5:15 PM	0	0	14	0	14	0	191	17	0	208	0	5	107	0	112	334
5:30 PM	0	0	12	0	12	0	131	6	1	137	1	4	102	0	107	256
5:45 PM	0	0	3	0	3	0	149	5	1	154	0	2	84	0	86	243
Hourly Total	0	0	42	0	42	0	695	42	2	737	1	16	391	0	408	1187
Grand Total	0	0	166	0	166	0	2403	140	3	2543	4	139	2151	1	2294	5003
Approach %	0.0	0.0	100.0	-	-	0.0	94.5	5.5	-	-	0.2	6.1	93.8	-	-	-
Total %	0.0	0.0	3.3	-	3.3	0.0	48.0	2.8	-	50.8	0.1	2.8	43.0	-	45.9	-
Lights	0	0	164	-	164	0	2363	140	-	2503	4	138	2125	-	2267	4934
% Lights	-	-	98.8	-	98.8	-	98.3	100.0	-	98.4	100.0	99.3	98.8	-	98.8	98.6
Buses	0	0	1	-	1	0	11	0	-	11	0	1	5	-	6	18
% Buses	-	-	0.6	-	0.6	-	0.5	0.0	-	0.4	0.0	0.7	0.2	-	0.3	0.4
Single-Unit Trucks	0	0	0	-	0	0	24	0	-	24	0	0	15	-	15	39
% Single-Unit Trucks	-	-	0.0	-	0.0	-	1.0	0.0	-	0.9	0.0	0.0	0.7	-	0.7	0.8
Articulated Trucks	0	0	0	-	0	0	5	0	-	5	0	0	6	-	6	11
% Articulated Trucks	-	-	0.0	-	0.0	-	0.2	0.0	-	0.2	0.0	0.0	0.3	-	0.3	0.2
Bicycles on Road	0	0	1	-	1	0	0	0	-	0	0	0	0	-	0	1
% Bicycles on Road	-	-	0.6	-	0.6	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	3	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-





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Count Name: Old Warrenville Road with  
Warrenville Road TMC  
Site Code:  
Start Date: 05/06/2025  
Page No: 3

### Turning Movement Peak Hour Data (4:15 PM)

Start Time	Old Warrenville Road Westbound					Warrenville Road Northbound					Warrenville Road Southbound					Int. Total
	U-Turn	Left	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	
4:15 PM	0	0	19	0	19	0	185	9	0	194	0	5	153	0	158	371
4:30 PM	0	0	7	0	7	0	196	9	0	205	0	10	120	0	130	342
4:45 PM	0	0	15	0	15	0	201	9	0	210	2	5	99	0	106	331
5:00 PM	0	0	13	0	13	0	224	14	0	238	0	5	98	0	103	354
Total	0	0	54	0	54	0	806	41	0	847	2	25	470	0	497	1398
Approach %	0.0	0.0	100.0	-	-	0.0	95.2	4.8	-	-	0.4	5.0	94.6	-	-	-
Total %	0.0	0.0	3.9	-	3.9	0.0	57.7	2.9	-	60.6	0.1	1.8	33.6	-	35.6	-
PHF	0.000	0.000	0.711	-	0.711	0.000	0.900	0.732	-	0.890	0.250	0.625	0.768	-	0.786	0.942
Lights	0	0	54	-	54	0	796	41	-	837	2	25	468	-	495	1386
% Lights	-	-	100.0	-	100.0	-	98.8	100.0	-	98.8	100.0	100.0	99.6	-	99.6	99.1
Buses	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Buses	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks	0	0	0	-	0	0	9	0	-	9	0	0	0	-	0	9
% Single-Unit Trucks	-	-	0.0	-	0.0	-	1.1	0.0	-	1.1	0.0	0.0	0.0	-	0.0	0.6
Articulated Trucks	0	0	0	-	0	0	1	0	-	1	0	0	2	-	2	3
% Articulated Trucks	-	-	0.0	-	0.0	-	0.1	0.0	-	0.1	0.0	0.0	0.4	-	0.4	0.2
Bicycles on Road	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Bicycles on Road	-	-	0.0	-	0.0	-	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

## Site Plan

# PUD Site Plan

# CANTERA POINT

Warrenville, Illinois

June 2nd, 2025



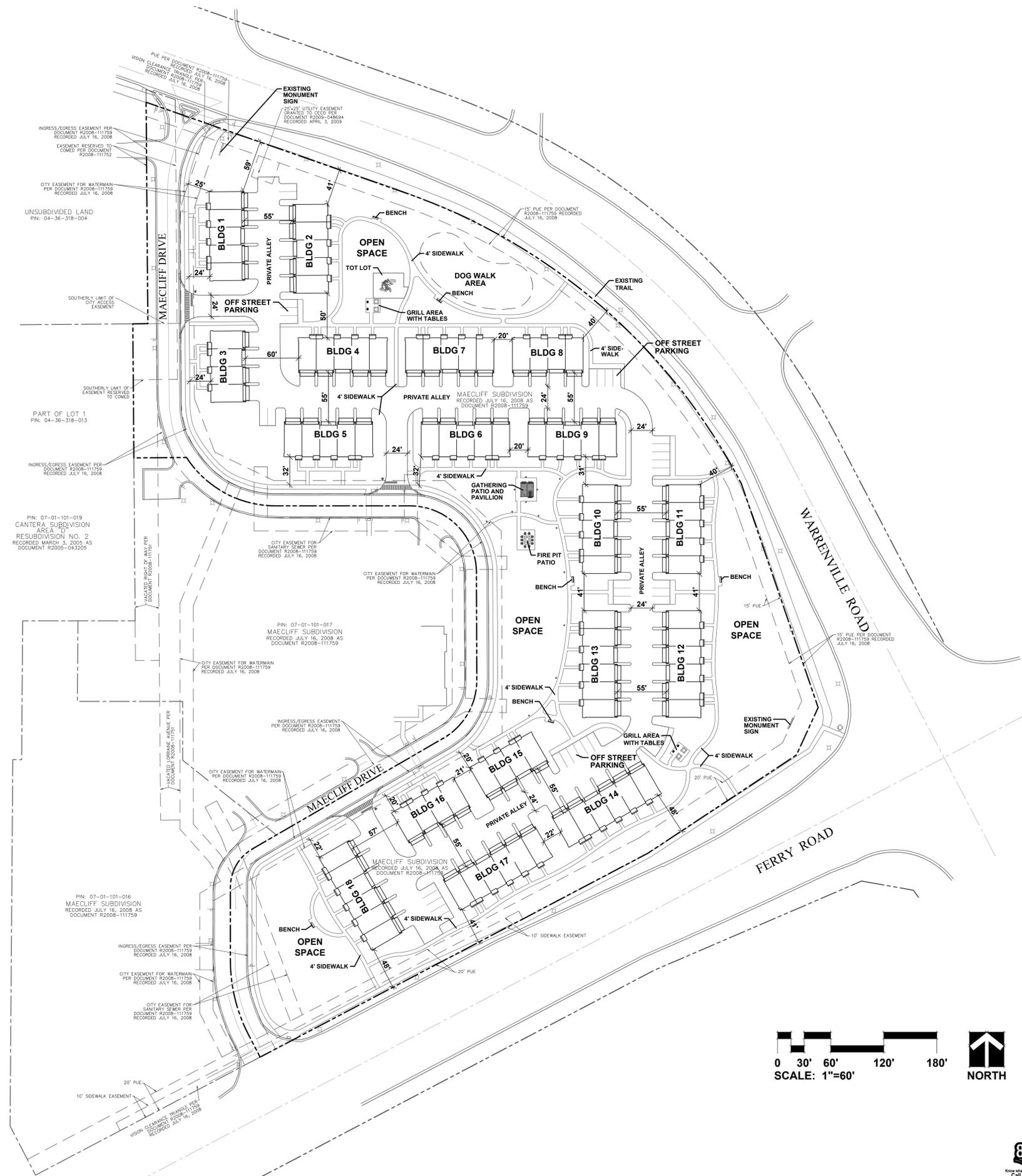
LOCATION MAP  
SCALE: 1"=600'

### SITE DATA

LAND USE	ACRES
TOWNHOMES	1.671
OPEN SPACE	6.962
PRIVATE STREET	0.811
TOTAL	9.444
COMMON OPEN SPACE	4.427
SEABOARD TOWNHOME	UNITS
Lincoln VD07 (2,180 GSF)	9
Garfield VD08 (2,179 GSF)	28
McKinley VD09 (2,004 GSF)	18
Grand End 1828 (2,180 GSF)	36
TOTAL	91
GROSS FLOOR AREA	195,184 SF
GUEST PARKING SPACES	36

### FLOOR AREA DATA

PLAN NAME	GROSS (SF)	LIVING (SF)	MAIN FLOOR (SF)	UPPER FLOOR (SF)	LOWER LEVEL (SF)	GARAGE (SF)	UNITS	BEDROOM COUNT
LINCOLN VD07	2,180	1,827	774	729	324	353	9	3 BEDROOMS
GARFIELD VD08	2,179	1,827	774	729	324	352	28	3 BEDROOMS
MCKINLEY VD09	2,004	1,661	696	650	315	343	18	2 BEDROOMS
GRAND END 1828	2,180	1,827	774	729	324	353	36	3 BEDROOMS



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## CANTERA POINT

WARRENVILLE, ILLINOIS

## PUD SITE PLAN

1 06.02.2025  
REVISIONS

DATE 04.11.2025  
PROJECT NO. DR21114  
DRAWN RY  
CHECKED DHS  
SHEET NO.

**1 OF 1**



# CMAP 2050 Projections Letter



May 2, 2025

Ryan May  
Project Coordinator  
Kenig, Lindgren, O'Hara and Aboona, Inc.  
9575 West Higgins Road  
Suite 400  
Rosemont, IL 60018

**Subject: Ferry Road - Warrenville Road - Mill Street**  
IDOT

Dear Ms. May:

In response to a request made on your behalf and dated May 1, 2025, we have developed year 2050 average daily traffic (ADT) projections for the subject location.

<b>ROAD SEGMENT</b>	<b>Current ADT (2020)</b>	<b>Year 2050 ADT</b>
<b>Ferry Rd west of Warrenville Rd</b>	5,450	9,100
<b>Ferry Rd / Warrenville Rd east of Mill St</b>	6,400	11,100
<b>Mill St south of Warrenville Rd</b>	6,000	7,500
<b>Warrenville Rd north of Ferry Rd</b>	6,400	8,900

Traffic projections are developed using existing ADT data provided in the request letter and the results from the December 2024 CMAP Travel Demand Analysis. The regional travel model uses CMAP 2050 socioeconomic projections and assumes the implementation of the ON TO 2050 Comprehensive Regional Plan for the Northeastern Illinois area. The provision of this data in support of your request does not constitute a CMAP endorsement of the proposed development or any subsequent developments.

If you have any questions, please call me at (312) 386-8806 or email me at [jrodriguez@cmap.illinois.gov](mailto:jrodriguez@cmap.illinois.gov)

Jose Rodriguez, PTP, AICP  
Senior Planner, Research & Analysis

cc: Rios (IDOT)  
S:\AdminGroups\ResearchAnalysis\2025\_trafficForecasts\Warrenville\du-29-25\du-29-25.docx

## Level of Service Criteria

## LEVEL OF SERVICE CRITERIA

Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	$\leq 10$
B	Good progression, with more vehicles stopping than for Level of Service A.	$> 10 - 20$
C	Individual cycle failures (i.e., one or more queued vehicles are not able to depart as a result of insufficient capacity during the cycle) may begin to appear. Number of vehicles stopping is significant, although many vehicles still pass through the intersection without stopping.	$> 20 - 35$
D	The volume-to-capacity ratio is high and either progression is ineffective or the cycle length is too long. Many vehicles stop and individual cycle failures are noticeable.	$> 35 - 55$
E	Progression is unfavorable. The volume-to-capacity ratio is high and the cycle length is long. Individual cycle failures are frequent.	$> 55 - 80$
F	The volume-to-capacity ratio is very high, progression is very poor, and the cycle length is long. Most cycles fail to clear the queue.	$> 80$
Unsignalized Intersections		
Level of Service	Average Total Delay (sec/veh)	
A	0 - 10	
B	$> 10 - 15$	
C	$> 15 - 25$	
D	$> 25 - 35$	
E	$> 35 - 50$	
F	$> 50$	

Source: *Highway Capacity Manual*, 7<sup>th</sup> Edition.

Capacity Analysis Summary Sheets  
Existing Weekday Morning Peak Hour

Lanes, Volumes, Timings

1: Mill Street & Ferry Road & Warrenville Road

05/28/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	17	616	55	154	379	299	29	197	148	374	302	14
Future Volume (vph)	17	616	55	154	379	299	29	197	148	374	302	14
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		160	370		400	255		280	380		130
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	165			80			120			170		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3762	1583	1805	3762	1568	1687	3762	1615	1752	3725	1615
Flt Permitted	0.510			0.270			0.554			0.469		
Satd. Flow (perm)	969	3762	1583	513	3762	1568	984	3762	1615	865	3725	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			143			325			119			105
Link Speed (mph)		40			40			40				40
Link Distance (ft)		837			1935			1040				517
Travel Time (s)		14.3			33.0			17.7				8.8
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	2%	0%	1%	3%	7%	1%	0%	3%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	670	60	167	412	325	32	214	161	407	328	15
Turn Type	pm+pt	NA	pm+ov									
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	3	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	7.5	21.5	7.5	7.5	21.5	7.5	7.5	21.5	7.5	7.5	21.5	7.5
Total Split (s)	13.0	53.0	14.0	18.0	58.0	29.0	14.0	30.0	18.0	29.0	45.0	13.0
Total Split (%)	10.0%	40.8%	10.8%	13.8%	44.6%	22.3%	10.8%	23.1%	13.8%	22.3%	34.6%	10.0%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5
Lead/Lag	Lead	Lag	Lead									
Lead-Lag Optimize?	Yes											
Recall Mode	None	C-Min	None	None	C-Min	None						
Act Effct Green (s)	59.1	50.9	64.5	69.2	60.5	95.0	26.4	17.4	35.7	51.8	40.2	52.9
Actuated g/C Ratio	0.45	0.39	0.50	0.53	0.47	0.73	0.20	0.13	0.27	0.40	0.31	0.41

Lanes, Volumes, Timings

1: Mill Street & Ferry Road & Warrenville Road

05/28/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.04	0.46	0.07	0.43	0.24	0.26	0.13	0.43	0.30	0.76	0.28	0.02
Control Delay (s/veh)	11.9	27.9	2.5	19.6	22.4	1.3	27.1	54.0	11.9	41.3	35.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.9	27.9	2.5	19.6	22.4	1.3	27.1	54.0	11.9	41.3	35.4	0.1
LOS	B	C	A	B	C	A	C	D	B	D	D	A
Approach Delay (s/veh)		25.5			14.3			35.2			37.9	
Approach LOS		C			B			D			D	
Queue Length 50th (ft)	8	231	0	75	120	0	16	88	27	252	107	0
Queue Length 95th (ft)	9	291	22	112	155	31	38	125	77	#380	157	0
Internal Link Dist (ft)		757			1855			960			437	
Turn Bay Length (ft)	325		160	370		400	255		280	380		130
Base Capacity (vph)	512	1472	883	411	1751	1233	269	680	553	535	1166	746
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.46	0.07	0.41	0.24	0.26	0.12	0.31	0.29	0.76	0.28	0.02

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 121 (93%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.76  
 Intersection Signal Delay (s/veh): 26.6      Intersection LOS: C  
 Intersection Capacity Utilization 76.3%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Mill Street & Ferry Road & Warrenville Road



Lanes, Volumes, Timings

2: Bella Vista Parkway/Chase Court & Ferry Road

05/28/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	713	110	38	349	50	9	2	4	8	1	14
Future Volume (vph)	69	713	110	38	349	50	9	2	4	8	1	14
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	180		375	165		160	0		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	210			165			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.893				0.859
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1615	1805	3539	1615	3502	1440	0	1805	1451	0
Flt Permitted	0.516			0.337			0.950			0.950		
Satd. Flow (perm)	961	3539	1615	640	3539	1615	3502	1440	0	1805	1451	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			125			92		5				16
Link Speed (mph)		40			40			25				25
Link Distance (ft)		946			786			527				359
Travel Time (s)		16.1			13.4			14.4				9.8
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	0%	0%	2%	0%	0%	0%	25%	0%	100%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	78	810	125	43	397	57	10	7	0	9	17	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6						
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	2.5	4.0		3.0	4.0	
Minimum Split (s)	7.0	21.0	21.0	7.0	21.0	21.0	7.0	10.0		7.0	10.0	
Total Split (s)	13.0	67.0	67.0	13.0	67.0	67.0	16.0	34.0		16.0	34.0	
Total Split (%)	10.0%	51.5%	51.5%	10.0%	51.5%	51.5%	12.3%	26.2%		12.3%	26.2%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		4.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes								
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effct Green (s)	115.7	109.8	109.8	115.0	109.4	109.4	5.9	6.1		6.2	6.2	
Actuated g/C Ratio	0.89	0.84	0.84	0.88	0.84	0.84	0.05	0.05		0.05	0.05	

Lanes, Volumes, Timings

2: Bella Vista Parkway/Chase Court & Ferry Road

05/28/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.09	0.27	0.09	0.07	0.13	0.04	0.06	0.10		0.10	0.20	
Control Delay (s/veh)	1.8	3.9	1.1	1.8	3.2	0.2	60.0	42.5		61.4	31.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	1.8	3.9	1.1	1.8	3.2	0.2	60.0	42.5		61.4	31.0	
LOS	A	A	A	A	A	A	E	D		E	C	
Approach Delay (s/veh)		3.4			2.7			52.8			41.5	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	0	36	0	1	14	0	4	2		7	1	
Queue Length 95th (ft)	23	164	18	14	62	2	13	17		26	25	
Internal Link Dist (ft)		866			706			447			279	
Turn Bay Length (ft)	180		375	165		160						
Base Capacity (vph)	926	2988	1383	659	2979	1374	323	314		166	325	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.08	0.27	0.09	0.07	0.13	0.04	0.03	0.02		0.05	0.05	

Intersection Summary

Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	99 (76%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.27
Intersection Signal Delay (s/veh):	4.4
Intersection LOS:	A
Intersection Capacity Utilization:	43.0%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 2: Bella Vista Parkway/Chase Court & Ferry Road



Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↗		↘	↗	
Traffic Vol, veh/h	23	681	21	8	409	5	2	0	1	6	0	26
Future Vol, veh/h	23	681	21	8	409	5	2	0	1	6	0	26
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	215	-	140	165	-	215	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	2	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	26	757	23	9	454	6	2	0	1	7	0	29

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	460	0	0	780	0	0	1053	1286	378	902	1303	227
Stage 1	-	-	-	-	-	-	808	808	-	472	472	-
Stage 2	-	-	-	-	-	-	245	478	-	429	831	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1254	-	-	1028	-	-	*417	276	*910	*580	267	*990
Stage 1	-	-	-	-	-	-	*523	520	-	*701	661	-
Stage 2	-	-	-	-	-	-	*934	657	-	*858	505	-
Platoon blocked, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Cap-1 Maneuver	1254	-	-	1028	-	-	*393	268	*910	*563	259	*990
Mov Cap-2 Maneuver	-	-	-	-	-	-	*393	268	-	*563	259	-
Stage 1	-	-	-	-	-	-	*512	509	-	*695	655	-
Stage 2	-	-	-	-	-	-	*899	651	-	*839	495	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.25	0.16	12.46	9.26
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	393	910	1254	-	-	1028	-	-	563	990
HCM Lane V/C Ratio	0.006	0.001	0.02	-	-	0.009	-	-	0.012	0.029
HCM Control Delay (s/veh)	14.2	9	7.9	-	-	8.5	-	-	11.5	8.7
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0	0	0.1	-	-	0	-	-	0	0.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗		↑↑				↗		↔	
Traffic Vol, veh/h	5	740	6	0	512	1	1	1	0	4	0	9
Future Vol, veh/h	5	740	6	0	512	1	1	1	0	4	0	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Stop	-	-	None
Storage Length	125	-	125	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	2	0	0	2	0	0	0	0	25	0	0
Mvmt Flow	5	813	7	0	563	1	1	1	0	4	0	10

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	564	0	-	-	-	0	1105	1388	407	981	1387	282
Stage 1	-	-	-	-	-	-	824	824	-	563	563	-
Stage 2	-	-	-	-	-	-	281	564	-	418	824	-
Critical Hdwy	4.1	-	-	-	-	-	7.5	6.5	6.9	8	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	7	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	7	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3	3.75	4	3.3
Pot Cap-1 Maneuver	1018	-	0	0	-	-	168	144	599	173	144	721
Stage 1	-	-	0	0	-	-	338	390	-	424	512	-
Stage 2	-	-	0	0	-	-	707	512	-	525	390	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	1018	-	-	-	-	-	165	143	599	171	143	721
Mov Cap-2 Maneuver	-	-	-	-	-	-	165	143	-	171	143	-
Stage 1	-	-	-	-	-	-	336	388	-	424	512	-
Stage 2	-	-	-	-	-	-	698	512	-	521	388	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.06	0	0	15.34
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	1018	-	-	-	362
HCM Lane V/C Ratio	-	0.005	-	-	-	0.039
HCM Control Delay (s/veh)	0	8.6	-	-	-	15.3
HCM Lane LOS	A	A	-	-	-	C
HCM 95th %tile Q(veh)	-	0	-	-	-	0.1

HCM 7th TWSC  
 5: Warrenville Road & Old Warrenville Road

05/28/2025

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations		↗	↖	↕	↕	
Traffic Vol, veh/h	0	31	55	690	482	31
Future Vol, veh/h	0	31	55	690	482	31
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	305	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	2	0
Mvmt Flow	0	34	60	750	524	34

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	279	558	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.22	-	-	-
Pot Cap-1 Maneuver	0	724	1009	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	724	1009	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s/v10.21		0.65	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWRWBLn1	SEL	SET
Capacity (veh/h)	-	-	724	1009
HCM Lane V/C Ratio	-	-	0.047	0.059
HCM Control Delay (s/veh)	-	-	10.2	8.8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0.2

Capacity Analysis Summary Sheets  
Existing Weekday Evening Peak Hour

Lanes, Volumes, Timings

1: Mill Street & Ferry Road & Warrenville Road

05/28/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	475	76	227	509	415	53	399	148	220	243	7
Future Volume (vph)	33	475	76	227	509	415	53	399	148	220	243	7
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		160	370		400	255		280	380		130
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	165			80			120			170		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3762	1615	1805	3762	1599	1736	3762	1599	1787	3800	1615
Flt Permitted	0.453			0.372			0.593			0.283		
Satd. Flow (perm)	861	3762	1615	707	3762	1599	1083	3762	1599	532	3800	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			124			290			156			91
Link Speed (mph)		40			40			40				40
Link Distance (ft)		837			1935			1040				517
Travel Time (s)		14.3			33.0			17.7				8.8
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	4%	1%	1%	1%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	500	80	239	536	437	56	420	156	232	256	7
Turn Type	pm+pt	NA	pm+ov									
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	3	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	7.5	21.5	7.5	7.5	21.5	7.5	7.5	21.5	7.5	7.5	21.5	7.5
Total Split (s)	14.0	55.0	15.0	23.0	64.0	23.0	15.0	49.0	23.0	23.0	57.0	14.0
Total Split (%)	9.3%	36.7%	10.0%	15.3%	42.7%	15.3%	10.0%	32.7%	15.3%	15.3%	38.0%	9.3%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5
Lead/Lag	Lead	Lag	Lead									
Lead-Lag Optimize?	Yes											
Recall Mode	None	C-Min	None	None	C-Min	None						
Act Effct Green (s)	69.2	60.3	75.3	83.0	71.6	100.3	39.9	29.3	52.0	58.0	42.9	56.4
Actuated g/C Ratio	0.46	0.40	0.50	0.55	0.48	0.67	0.27	0.20	0.35	0.39	0.29	0.38

Lanes, Volumes, Timings

1: Mill Street & Ferry Road & Warrenville Road

05/28/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.08	0.33	0.09	0.47	0.30	0.38	0.17	0.57	0.24	0.59	0.24	0.01
Control Delay (s/veh)	18.3	30.3	0.4	22.3	26.8	5.1	29.0	57.3	4.5	37.6	40.3	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	18.3	30.3	0.4	22.3	26.8	5.1	29.0	57.3	4.5	37.6	40.3	0.0
LOS	B	C	A	C	C	A	C	E	A	D	D	A
Approach Delay (s/veh)		25.7			18.1			41.7			38.5	
Approach LOS		C			B			D			D	
Queue Length 50th (ft)	14	155	0	117	170	51	34	198	0	159	101	0
Queue Length 95th (ft)	36	202	2	201	252	129	57	240	42	202	128	0
Internal Link Dist (ft)		757			1855			960			437	
Turn Bay Length (ft)	325		160	370		400	255		280	380		130
Base Capacity (vph)	471	1544	892	534	1799	1170	348	1065	688	396	1287	689
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.32	0.09	0.45	0.30	0.37	0.16	0.39	0.23	0.59	0.20	0.01

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	39 (26%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.59
Intersection Signal Delay (s/veh):	28.1
Intersection LOS:	C
Intersection Capacity Utilization:	68.1%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 1: Mill Street & Ferry Road & Warrenville Road



Lanes, Volumes, Timings

2: Bella Vista Parkway/Chase Court & Ferry Road

05/28/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Traffic Volume (vph)	15	483	30	3	587	7	68	0	56	53	0	69
Future Volume (vph)	15	483	30	3	587	7	68	0	56	53	0	69
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	180		375	165		160	0		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	210			165			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.850			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3574	1615	1805	3574	1615	3433	1615	0	1805	1615	0
Flt Permitted	0.391			0.455			0.950			0.950		
Satd. Flow (perm)	743	3574	1615	864	3574	1615	3433	1615	0	1805	1615	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			109		323				377
Link Speed (mph)		40			40			25				25
Link Distance (ft)		946			786			527				359
Travel Time (s)		16.1			13.4			14.4				9.8
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	2%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	16	531	33	3	645	8	75	62	0	58	76	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6						
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	4.0		3.0	4.0	
Minimum Split (s)	7.0	21.0	21.0	7.0	21.0	21.0	7.0	10.0		7.0	10.0	
Total Split (s)	14.0	63.0	63.0	14.0	63.0	63.0	34.0	58.0		15.0	39.0	
Total Split (%)	9.3%	42.0%	42.0%	9.3%	42.0%	42.0%	22.7%	38.7%		10.0%	26.0%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		4.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes								
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effct Green (s)	119.6	116.3	116.3	118.5	114.3	114.3	8.7	7.6		10.2	7.1	
Actuated g/C Ratio	0.80	0.78	0.78	0.79	0.76	0.76	0.06	0.05		0.07	0.05	

Lanes, Volumes, Timings

2: Bella Vista Parkway/Chase Court & Ferry Road

05/28/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.03	0.19	0.03	0.00	0.24	0.01	0.38	0.16		0.48	0.17	
Control Delay (s/veh)	3.5	5.1	0.0	1.0	1.4	0.0	73.1	0.9		79.1	0.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	3.5	5.1	0.0	1.0	1.4	0.0	73.1	0.9		79.1	0.9	
LOS	A	A	A	A	A	A	E	A		E	A	
Approach Delay (s/veh)		4.8			1.4			40.4			34.7	
Approach LOS		A			A			D			C	
Queue Length 50th (ft)	3	58	0	0	14	0	37	0		56	0	
Queue Length 95th (ft)	9	113	0	m1	26	m0	64	0		102	0	
Internal Link Dist (ft)		866			706			447			279	
Turn Bay Length (ft)	180		375	165		160						
Base Capacity (vph)	666	2771	1276	755	2722	1256	686	770		142	649	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.02	0.19	0.03	0.00	0.24	0.01	0.11	0.08		0.41	0.12	

Intersection Summary

Area Type: Other  
 Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 87 (58%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.48  
 Intersection Signal Delay (s/veh): 9.2  
 Intersection LOS: A  
 Intersection Capacity Utilization 35.8%  
 ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Bella Vista Parkway/Chase Court & Ferry Road



Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑	↗	↙	↗		↙	↗	
Traffic Vol, veh/h	28	558	6	7	552	10	25	0	20	6	0	20
Future Vol, veh/h	28	558	6	7	552	10	25	0	20	6	0	20
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	215	-	140	165	-	215	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	4	1	17	0	1	0	0	0	0	0	0	0
Mvmt Flow	31	620	7	8	613	11	28	0	22	7	0	22

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	624	0	0	627	0	0	1004	1322	310	1001	1318	307
Stage 1	-	-	-	-	-	-	682	682	-	629	629	-
Stage 2	-	-	-	-	-	-	322	640	-	372	689	-
Critical Hdwy	4.18	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.24	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1136	-	-	1158	-	-	*534	281	*934	*538	283	*934
Stage 1	-	-	-	-	-	-	*597	577	-	*649	614	-
Stage 2	-	-	-	-	-	-	*880	607	-	*880	573	-
Platoon blocked, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Cap-1 Maneuver	1136	-	-	1158	-	-	*504	271	*934	*508	273	*934
Mov Cap-2 Maneuver	-	-	-	-	-	-	*504	271	-	*508	273	-
Stage 1	-	-	-	-	-	-	*580	562	-	*644	610	-
Stage 2	-	-	-	-	-	-	*854	602	-	*836	557	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.39			0.1			10.96			9.7		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	504	934	1136	-	-	1158	-	-	508	934
HCM Lane V/C Ratio	0.055	0.024	0.027	-	-	0.007	-	-	0.013	0.024
HCM Control Delay (s/veh)	12.6	8.9	8.3	-	-	8.1	-	-	12.2	8.9
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0.2	0.1	0.1	-	-	0	-	-	0	0.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗		↑↑				↗		↔	
Traffic Vol, veh/h	12	492	3	0	856	4	0	1	2	3	0	6
Future Vol, veh/h	12	492	3	0	856	4	0	1	2	3	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Stop	-	-	None
Storage Length	125	-	125	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	13	523	3	0	911	4	0	1	2	3	0	6

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	915	0	-	-	-	0	-	1464	262	1201	1462	457
Stage 1	-	-	-	-	-	-	-	549	-	913	913	-
Stage 2	-	-	-	-	-	-	-	915	-	288	549	-
Critical Hdwy	4.1	-	-	-	-	-	-	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	-	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	754	-	0	0	-	-	0	130	743	143	130	556
Stage 1	-	-	0	0	-	-	0	520	-	299	355	-
Stage 2	-	-	0	0	-	-	0	354	-	701	520	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	754	-	-	-	-	-	-	127	743	139	128	556
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	127	-	139	128	-
Stage 1	-	-	-	-	-	-	-	511	-	299	355	-
Stage 2	-	-	-	-	-	-	-	354	-	686	511	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.23	0	9.86	18.42
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	743	754	-	-	-	278
HCM Lane V/C Ratio	0.003	0.017	-	-	-	0.034
HCM Control Delay (s/veh)	9.9	9.9	-	-	-	18.4
HCM Lane LOS	A	A	-	-	-	C
HCM 95th %tile Q(veh)	0	0.1	-	-	-	0.1

HCM 7th TWSC  
 5: Warrenville Road & Old Warrenville Road

05/28/2025

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations		↗	↖	↕	↕	
Traffic Vol, veh/h	0	54	27	470	806	41
Future Vol, veh/h	0	54	27	470	806	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	305	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	57	29	500	857	44

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	451	901	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	562	763	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	562	763	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s/v12.14		0.54	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWRWBLn1	SEL	SET
Capacity (veh/h)	-	-	562	763
HCM Lane V/C Ratio	-	-	0.102	0.038
HCM Control Delay (s/veh)	-	-	12.1	9.9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.3	0.1

Capacity Analysis Summary Sheets  
Year 2030 No-Build Weekday Morning Peak Hour

Lanes, Volumes, Timings

1: Mill Street & Ferry Road & Warrenville Road

05/28/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	668	60	167	411	324	31	214	161	406	328	15
Future Volume (vph)	18	668	60	167	411	324	31	214	161	406	328	15
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		160	370		400	255		280	380		130
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	165			80			120			170		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3762	1583	1805	3762	1568	1687	3762	1615	1752	3725	1615
Flt Permitted	0.493			0.236			0.538			0.449		
Satd. Flow (perm)	937	3762	1583	448	3762	1568	955	3762	1615	828	3725	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			143			352			105			105
Link Speed (mph)		40			40			40				40
Link Distance (ft)		837			1935			1040				517
Travel Time (s)		14.3			33.0			17.7				8.8
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	2%	0%	1%	3%	7%	1%	0%	3%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	726	65	182	447	352	34	233	175	441	357	16
Turn Type	pm+pt	NA	pm+ov									
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	3	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	7.5	21.5	7.5	7.5	21.5	7.5	7.5	21.5	7.5	7.5	21.5	7.5
Total Split (s)	13.0	53.0	14.0	18.0	58.0	29.0	14.0	30.0	18.0	29.0	45.0	13.0
Total Split (%)	10.0%	40.8%	10.8%	13.8%	44.6%	22.3%	10.8%	23.1%	13.8%	22.3%	34.6%	10.0%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5
Lead/Lag	Lead	Lag	Lead									
Lead-Lag Optimize?	Yes											
Recall Mode	None	C-Min	None	None	C-Min	None						
Act Effct Green (s)	57.9	49.7	63.3	68.3	59.7	94.3	27.2	18.1	36.7	52.7	41.1	53.8
Actuated g/C Ratio	0.45	0.38	0.49	0.53	0.46	0.73	0.21	0.14	0.28	0.41	0.32	0.41

Lanes, Volumes, Timings

1: Mill Street & Ferry Road & Warrenville Road

05/28/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.04	0.50	0.08	0.50	0.26	0.29	0.14	0.45	0.33	0.82	0.30	0.02
Control Delay (s/veh)	11.3	28.3	2.5	21.5	22.9	1.4	27.1	53.7	15.8	46.0	35.4	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.3	28.3	2.5	21.5	22.9	1.4	27.1	53.7	15.8	46.0	35.4	0.1
LOS	B	C	A	C	C	A	C	D	B	D	D	A
Approach Delay (s/veh)		25.8			14.9			36.6			40.4	
Approach LOS		C			B			D			D	
Queue Length 50th (ft)	8	247	0	78	126	0	17	96	44	292	122	0
Queue Length 95th (ft)	8	318	25	124	171	32	39	134	99	#463	168	0
Internal Link Dist (ft)		757			1855			960			437	
Turn Bay Length (ft)	325		160	370		400	255		280	380		130
Base Capacity (vph)	490	1438	871	379	1726	1233	270	680	550	535	1194	756
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.50	0.07	0.48	0.26	0.29	0.13	0.34	0.32	0.82	0.30	0.02

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 121 (93%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay (s/veh): 27.8      Intersection LOS: C  
 Intersection Capacity Utilization 80.1%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Mill Street & Ferry Road & Warrenville Road



Lanes, Volumes, Timings

2: Bella Vista Parkway/Chase Court & Ferry Road

05/28/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	774	119	41	379	54	10	2	4	9	1	15
Future Volume (vph)	75	774	119	41	379	54	10	2	4	9	1	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	180		375	165		160	0		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	210			165			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.893				0.858
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1615	1805	3539	1615	3502	1440	0	1805	1453	0
Flt Permitted	0.494			0.312			0.950			0.950		
Satd. Flow (perm)	920	3539	1615	593	3539	1615	3502	1440	0	1805	1453	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			135			92		5				17
Link Speed (mph)		40			40			25				25
Link Distance (ft)		946			786			527				359
Travel Time (s)		16.1			13.4			14.4				9.8
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	0%	0%	2%	0%	0%	0%	25%	0%	100%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	880	135	47	431	61	11	7	0	10	18	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6						
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	2.5	4.0		3.0	4.0	
Minimum Split (s)	7.0	21.0	21.0	7.0	21.0	21.0	7.0	10.0		7.0	10.0	
Total Split (s)	13.0	67.0	67.0	13.0	67.0	67.0	16.0	34.0		16.0	34.0	
Total Split (%)	10.0%	51.5%	51.5%	10.0%	51.5%	51.5%	12.3%	26.2%		12.3%	26.2%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		4.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes								
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effct Green (s)	113.7	107.6	107.6	112.1	104.1	104.1	5.9	8.1		6.3	6.3	
Actuated g/C Ratio	0.87	0.83	0.83	0.86	0.80	0.80	0.05	0.06		0.05	0.05	

Lanes, Volumes, Timings

2: Bella Vista Parkway/Chase Court & Ferry Road

05/28/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.10	0.30	0.10	0.08	0.15	0.05	0.07	0.07		0.11	0.21	
Control Delay (s/veh)	2.3	4.9	1.3	2.4	4.0	0.4	60.1	39.3		61.4	31.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	2.3	4.9	1.3	2.4	4.0	0.4	60.1	39.3		61.4	31.1	
LOS	A	A	A	A	A	A	E	D		E	C	
Approach Delay (s/veh)		4.2			3.5			52.0			41.9	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	0	41	0	1	16	0	4	2		8	1	
Queue Length 95th (ft)	25	182	19	15	68	3	14	17		27	25	
Internal Link Dist (ft)		866			706			447			279	
Turn Bay Length (ft)	180		375	165		160						
Base Capacity (vph)	876	2928	1359	608	2833	1311	323	314		166	326	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.10	0.30	0.10	0.08	0.15	0.05	0.03	0.02		0.06	0.06	

Intersection Summary

Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	99 (76%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.30
Intersection Signal Delay (s/veh):	5.1
Intersection LOS:	A
Intersection Capacity Utilization:	45.2%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 2: Bella Vista Parkway/Chase Court & Ferry Road



Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑	↗	↙	↗		↙	↗	
Traffic Vol, veh/h	25	739	23	9	444	5	2	0	1	7	0	28
Future Vol, veh/h	25	739	23	9	444	5	2	0	1	7	0	28
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	215	-	140	165	-	215	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	2	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	28	821	26	10	493	6	2	0	1	8	0	31

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	499	0	0	847	0	0	1143	1396	411	979	1416	247
Stage 1	-	-	-	-	-	-	877	877	-	513	513	-
Stage 2	-	-	-	-	-	-	267	519	-	466	902	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1237	-	-	982	-	-	*380	242	*893	*551	233	*974
Stage 1	-	-	-	-	-	-	*489	492	-	*690	650	-
Stage 2	-	-	-	-	-	-	*919	646	-	*842	477	-
Platoon blocked, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Cap-1 Maneuver	1237	-	-	982	-	-	*356	234	*893	*532	225	*974
Mov Cap-2 Maneuver	-	-	-	-	-	-	*356	234	-	*532	225	-
Stage 1	-	-	-	-	-	-	*478	481	-	*683	644	-
Stage 2	-	-	-	-	-	-	*880	640	-	*822	466	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.25	0.17	13.13	9.43
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	356	893	1237	-	-	982	-	-	532	974
HCM Lane V/C Ratio	0.006	0.001	0.022	-	-	0.01	-	-	0.015	0.032
HCM Control Delay (s/veh)	15.2	9	8	-	-	8.7	-	-	11.9	8.8
HCM Lane LOS	C	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0	0	0.1	-	-	0	-	-	0	0.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗		↑↑				↗		↔	
Traffic Vol, veh/h	5	803	7	0	557	1	1	1	0	4	0	10
Future Vol, veh/h	5	803	7	0	557	1	1	1	0	4	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Stop	-	-	None
Storage Length	125	-	125	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	2	0	0	2	0	0	0	0	25	0	0
Mvmt Flow	5	882	8	0	612	1	1	1	0	4	0	11

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	613	0	-	-	-	0	1199	1507	441	1065	1506	307
Stage 1	-	-	-	-	-	-	893	893	-	613	613	-
Stage 2	-	-	-	-	-	-	306	613	-	453	893	-
Critical Hdwy	4.1	-	-	-	-	-	7.5	6.5	6.9	8	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	7	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	7	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3	3.75	4	3.3
Pot Cap-1 Maneuver	976	-	0	0	-	-	143	122	569	149	122	695
Stage 1	-	-	0	0	-	-	307	363	-	395	487	-
Stage 2	-	-	0	0	-	-	684	486	-	499	363	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	976	-	-	-	-	-	140	121	569	147	122	695
Mov Cap-2 Maneuver	-	-	-	-	-	-	140	121	-	147	122	-
Stage 1	-	-	-	-	-	-	305	360	-	395	487	-
Stage 2	-	-	-	-	-	-	674	486	-	495	360	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.05	0	0	16.22
HCM LOS			A	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	976	-	-	-	336
HCM Lane V/C Ratio	-	0.006	-	-	-	0.046
HCM Control Delay (s/veh)	0	8.7	-	-	-	16.2
HCM Lane LOS	A	A	-	-	-	C
HCM 95th %tile Q(veh)	-	0	-	-	-	0.1

HCM 7th TWSC  
 5: Warrenville Road & Old Warrenville Road

05/28/2025

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations		↗	↖	↕	↕	
Traffic Vol, veh/h	0	34	60	749	523	34
Future Vol, veh/h	0	34	60	749	523	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	305	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	2	0
Mvmt Flow	0	37	65	814	568	37

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	303	605	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.22	-	-	-
Pot Cap-1 Maneuver	0	699	969	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	699	969	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s/v10.43		0.67	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWRWBLn1	SEL	SET
Capacity (veh/h)	-	-	699	969
HCM Lane V/C Ratio	-	-	0.053	0.067
HCM Control Delay (s/veh)	-	-	10.4	9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2

Capacity Analysis Summary Sheets  
Year 2030 No-Build Weekday Evening Peak Hour

Lanes, Volumes, Timings

1: Mill Street & Ferry Road & Warrenville Road

05/28/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	515	82	246	552	450	58	433	161	239	264	8
Future Volume (vph)	36	515	82	246	552	450	58	433	161	239	264	8
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		160	370		400	255		280	380		130
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	165			80			120			170		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3762	1615	1805	3762	1599	1736	3762	1599	1787	3800	1615
Flt Permitted	0.433			0.337			0.581			0.267		
Satd. Flow (perm)	823	3762	1615	640	3762	1599	1061	3762	1599	502	3800	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			124			266			145			91
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		837			1935			1040			517	
Travel Time (s)		14.3			33.0			17.7			8.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	4%	1%	1%	1%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	542	86	259	581	474	61	456	169	252	278	8
Turn Type	pm+pt	NA	pm+ov									
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	3	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	7.5	21.5	7.5	7.5	21.5	7.5	7.5	21.5	7.5	7.5	21.5	7.5
Total Split (s)	14.0	55.0	15.0	23.0	64.0	23.0	15.0	49.0	23.0	23.0	57.0	14.0
Total Split (%)	9.3%	36.7%	10.0%	15.3%	42.7%	15.3%	10.0%	32.7%	15.3%	15.3%	38.0%	9.3%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5
Lead/Lag	Lead	Lag	Lead									
Lead-Lag Optimize?	Yes											
Recall Mode	None	C-Min	None	None	C-Min	None						
Act Effct Green (s)	66.2	57.2	72.4	80.7	69.1	98.1	42.1	31.3	54.9	60.3	45.0	58.6
Actuated g/C Ratio	0.44	0.38	0.48	0.54	0.46	0.65	0.28	0.21	0.37	0.40	0.30	0.39

Lanes, Volumes, Timings

1: Mill Street & Ferry Road & Warrenville Road

05/28/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.09	0.38	0.10	0.54	0.34	0.42	0.18	0.58	0.25	0.64	0.24	0.01
Control Delay (s/veh)	19.1	32.6	0.7	24.8	28.6	7.1	28.1	55.9	6.6	38.0	39.3	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.1	32.6	0.7	24.8	28.6	7.1	28.1	55.9	6.6	38.0	39.3	0.0
LOS	B	C	A	C	C	A	C	E	A	D	D	A
Approach Delay (s/veh)		27.7			20.1			41.3			38.1	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	16	176	0	139	200	83	35	213	15	164	105	0
Queue Length 95th (ft)	36	217	4	210	266	184	64	253	58	227	142	0
Internal Link Dist (ft)		757			1855			960			437	
Turn Bay Length (ft)	325		160	370		400	255		280	380		130
Base Capacity (vph)	438	1466	862	496	1734	1140	358	1065	701	397	1292	711
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.37	0.10	0.52	0.34	0.42	0.17	0.43	0.24	0.63	0.22	0.01

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	39 (26%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.64
Intersection Signal Delay (s/veh):	29.2
Intersection LOS:	C
Intersection Capacity Utilization:	71.2%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 1: Mill Street & Ferry Road & Warrenville Road



Lanes, Volumes, Timings

2: Bella Vista Parkway/Chase Court & Ferry Road

05/28/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	524	33	3	637	8	74	0	61	58	0	75
Future Volume (vph)	16	524	33	3	637	8	74	0	61	58	0	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	180		375	165		160	0		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	210			165			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.850			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3574	1615	1805	3574	1615	3433	1615	0	1805	1615	0
Flt Permitted	0.362			0.435			0.950			0.950		
Satd. Flow (perm)	688	3574	1615	826	3574	1615	3433	1615	0	1805	1615	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			109		298			357	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		946			786			527			359	
Travel Time (s)		16.1			13.4			14.4			9.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	2%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	576	36	3	700	9	81	67	0	64	82	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6						
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	4.0		3.0	4.0	
Minimum Split (s)	7.0	21.0	21.0	7.0	21.0	21.0	7.0	10.0		7.0	10.0	
Total Split (s)	14.0	63.0	63.0	14.0	63.0	63.0	34.0	58.0		15.0	39.0	
Total Split (%)	9.3%	42.0%	42.0%	9.3%	42.0%	42.0%	22.7%	38.7%		10.0%	26.0%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		4.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes								
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effct Green (s)	119.1	115.8	115.8	117.1	111.8	111.8	8.9	7.6		10.7	7.3	
Actuated g/C Ratio	0.79	0.77	0.77	0.78	0.75	0.75	0.06	0.05		0.07	0.05	

Lanes, Volumes, Timings

2: Bella Vista Parkway/Chase Court & Ferry Road

05/28/2025

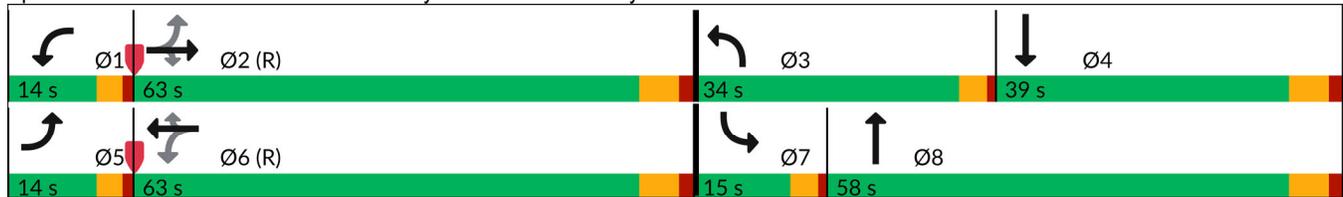


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.03	0.21	0.03	0.00	0.26	0.01	0.40	0.18		0.50	0.20	
Control Delay (s/veh)	3.8	5.4	0.0	1.0	1.6	0.0	73.3	1.1		79.3	1.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	3.8	5.4	0.0	1.0	1.6	0.0	73.3	1.1		79.3	1.1	
LOS	A	A	A	A	A	A	E	A		E	A	
Approach Delay (s/veh)		5.0			1.6			40.6			35.4	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	3	65	0	0	22	0	40	0		61	0	
Queue Length 95th (ft)	10	126	0	m1	30	m0	68	0		110	0	
Internal Link Dist (ft)		866			706			447			279	
Turn Bay Length (ft)	180		375	165		160						
Base Capacity (vph)	623	2760	1271	724	2662	1231	686	754		145	633	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.03	0.21	0.03	0.00	0.26	0.01	0.12	0.09		0.44	0.13	

Intersection Summary

Area Type: Other  
 Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 87 (58%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.50  
 Intersection Signal Delay (s/veh): 9.4      Intersection LOS: A  
 Intersection Capacity Utilization 37.5%      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Bella Vista Parkway/Chase Court & Ferry Road



Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗	↙	↑↑	↗	↙	↗		↙	↗	
Traffic Vol, veh/h	30	605	7	8	599	11	27	0	22	7	0	22
Future Vol, veh/h	30	605	7	8	599	11	27	0	22	7	0	22
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	215	-	140	165	-	215	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	4	1	17	0	1	0	0	0	0	0	0	0
Mvmt Flow	33	672	8	9	666	12	30	0	24	8	0	24

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	678	0	0	680	0	0	1089	1434	336	1086	1430	333
Stage 1	-	-	-	-	-	-	739	739	-	683	683	-
Stage 2	-	-	-	-	-	-	351	696	-	403	747	-
Critical Hdwy	4.18	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.24	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1099	-	-	1121	-	-	*499	245	*920	*503	247	*920
Stage 1	-	-	-	-	-	-	*568	554	-	*620	592	-
Stage 2	-	-	-	-	-	-	*867	583	-	*867	549	-
Platoon blocked, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Cap-1 Maneuver	1099	-	-	1121	-	-	*468	236	*920	*471	238	*920
Mov Cap-2 Maneuver	-	-	-	-	-	-	*468	236	-	*471	238	-
Stage 1	-	-	-	-	-	-	*551	537	-	*615	587	-
Stage 2	-	-	-	-	-	-	*837	579	-	*818	532	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s/v	0.39			0.11			11.34			9.93		
HCM LOS							B			A		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	468	920	1099	-	-	1121	-	-	471	920
HCM Lane V/C Ratio	0.064	0.027	0.03	-	-	0.008	-	-	0.017	0.027
HCM Control Delay (s/veh)	13.2	9	8.4	-	-	8.2	-	-	12.8	9
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0.2	0.1	0.1	-	-	0	-	-	0.1	0.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗		↑↑				↗		↔	
Traffic Vol, veh/h	13	534	3	0	929	4	0	1	2	3	0	7
Future Vol, veh/h	13	534	3	0	929	4	0	1	2	3	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Stop	-	-	None
Storage Length	125	-	125	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	14	568	3	0	988	4	0	1	2	3	0	7

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	993	0	-	-	-	0	-	1588	284	1303	1586	496
Stage 1	-	-	-	-	-	-	-	596	-	990	990	-
Stage 2	-	-	-	-	-	-	-	993	-	312	596	-
Critical Hdwy	4.1	-	-	-	-	-	-	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	-	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	705	-	0	0	-	-	0	109	719	120	109	524
Stage 1	-	-	0	0	-	-	0	495	-	268	327	-
Stage 2	-	-	0	0	-	-	0	326	-	679	495	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	705	-	-	-	-	-	-	107	719	116	107	524
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	107	-	116	107	-
Stage 1	-	-	-	-	-	-	-	486	-	268	327	-
Stage 2	-	-	-	-	-	-	-	326	-	662	486	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.24	0	10.02	19.7
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	719	705	-	-	-	256
HCM Lane V/C Ratio	0.003	0.02	-	-	-	0.042
HCM Control Delay (s/veh)	10	10.2	-	-	-	19.7
HCM Lane LOS	B	B	-	-	-	C
HCM 95th %tile Q(veh)	0	0.1	-	-	-	0.1

HCM 7th TWSC  
 5: Warrenville Road & Old Warrenville Road

05/28/2025

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations		↗	↖	↕	↕	
Traffic Vol, veh/h	0	59	29	510	875	44
Future Vol, veh/h	0	59	29	510	875	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	305	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	63	31	543	931	47

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	489	978	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	530	714	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	530	714	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s/v	12.7	0.55	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWRWBLn1	SEL	SET
Capacity (veh/h)	-	-	530	714
HCM Lane V/C Ratio	-	-	0.118	0.043
HCM Control Delay (s/veh)	-	-	12.7	10.3
HCM Lane LOS	-	-	B	B
HCM 95th %tile Q(veh)	-	-	0.4	0.1

Capacity Analysis Summary Sheets  
Year 2030 Total Projected Weekday Morning Peak Hour

Lanes, Volumes, Timings

1: Mill Street & Ferry Road & Warrenville Road

05/28/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	18	677	63	167	415	324	33	214	161	410	331	15
Future Volume (vph)	18	677	63	167	415	324	33	214	161	410	331	15
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		160	370		400	255		280	380		130
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	165			80			120			170		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3762	1583	1805	3762	1568	1687	3762	1615	1752	3725	1615
Flt Permitted	0.491			0.231			0.537			0.448		
Satd. Flow (perm)	933	3762	1583	439	3762	1568	954	3762	1615	826	3725	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			143			352			105			105
Link Speed (mph)		40			40			40				40
Link Distance (ft)		837			1935			1040				517
Travel Time (s)		14.3			33.0			17.7				8.8
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	2%	0%	1%	3%	7%	1%	0%	3%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	20	736	68	182	451	352	36	233	175	446	360	16
Turn Type	pm+pt	NA	pm+ov									
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	3	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	7.5	21.5	7.5	7.5	21.5	7.5	7.5	21.5	7.5	7.5	21.5	7.5
Total Split (s)	13.0	53.0	14.0	18.0	58.0	29.0	14.0	30.0	18.0	29.0	45.0	13.0
Total Split (%)	10.0%	40.8%	10.8%	13.8%	44.6%	22.3%	10.8%	23.1%	13.8%	22.3%	34.6%	10.0%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5
Lead/Lag	Lead	Lag	Lead									
Lead-Lag Optimize?	Yes											
Recall Mode	None	C-Min	None	None	C-Min	None						
Act Effct Green (s)	57.9	49.7	63.4	68.3	59.7	94.3	27.3	18.1	36.7	52.7	40.9	53.6
Actuated g/C Ratio	0.45	0.38	0.49	0.53	0.46	0.73	0.21	0.14	0.28	0.41	0.31	0.41

Lanes, Volumes, Timings

1: Mill Street & Ferry Road & Warrenville Road

05/28/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.04	0.51	0.08	0.51	0.26	0.29	0.15	0.45	0.33	0.84	0.31	0.02
Control Delay (s/veh)	11.3	28.5	2.5	21.6	22.9	1.4	27.3	53.7	15.8	46.9	35.6	0.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	11.3	28.5	2.5	21.6	22.9	1.4	27.3	53.7	15.8	46.9	35.6	0.1
LOS	B	C	A	C	C	A	C	D	B	D	D	A
Approach Delay (s/veh)		25.9			15.0			36.6			41.1	
Approach LOS		C			B			D			D	
Queue Length 50th (ft)	8	247	0	77	125	0	19	96	44	301	125	0
Queue Length 95th (ft)	8	325	26	124	172	32	41	134	99	#475	170	0
Internal Link Dist (ft)		757			1855			960			437	
Turn Bay Length (ft)	325		160	370		400	255		280	380		130
Base Capacity (vph)	489	1438	870	375	1726	1233	270	680	550	534	1195	754
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.04	0.51	0.08	0.49	0.26	0.29	0.13	0.34	0.32	0.84	0.30	0.02

Intersection Summary

Area Type: Other  
 Cycle Length: 130  
 Actuated Cycle Length: 130  
 Offset: 121 (93%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green  
 Natural Cycle: 75  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay (s/veh): 28.0      Intersection LOS: C  
 Intersection Capacity Utilization 80.6%      ICU Level of Service D  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Mill Street & Ferry Road & Warrenville Road



Lanes, Volumes, Timings

2: Bella Vista Parkway/Chase Court & Ferry Road

05/28/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	776	119	41	392	54	10	2	4	9	1	15
Future Volume (vph)	75	776	119	41	392	54	10	2	4	9	1	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	180		375	165		160	0		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	210			165			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.893				0.858
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	3539	1615	1805	3539	1615	3502	1440	0	1805	1453	0
Flt Permitted	0.487			0.311			0.950			0.950		
Satd. Flow (perm)	907	3539	1615	591	3539	1615	3502	1440	0	1805	1453	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			135			92		5				17
Link Speed (mph)		40			40			25				25
Link Distance (ft)		946			786			527				359
Travel Time (s)		16.1			13.4			14.4				9.8
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	0%	0%	2%	0%	0%	0%	25%	0%	100%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	85	882	135	47	445	61	11	7	0	10	18	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6						
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	2.5	4.0		3.0	4.0	
Minimum Split (s)	7.0	21.0	21.0	7.0	21.0	21.0	7.0	10.0		7.0	10.0	
Total Split (s)	13.0	67.0	67.0	13.0	67.0	67.0	16.0	34.0		16.0	34.0	
Total Split (%)	10.0%	51.5%	51.5%	10.0%	51.5%	51.5%	12.3%	26.2%		12.3%	26.2%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		4.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes								
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effct Green (s)	113.7	107.6	107.6	112.1	104.1	104.1	5.9	8.1		6.3	6.3	
Actuated g/C Ratio	0.87	0.83	0.83	0.86	0.80	0.80	0.05	0.06		0.05	0.05	

Lanes, Volumes, Timings

2: Bella Vista Parkway/Chase Court & Ferry Road

05/28/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.10	0.30	0.10	0.08	0.16	0.05	0.07	0.07		0.11	0.21	
Control Delay (s/veh)	2.3	4.9	1.3	2.4	4.1	0.4	60.1	39.3		61.4	31.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	2.3	4.9	1.3	2.4	4.1	0.4	60.1	39.3		61.4	31.1	
LOS	A	A	A	A	A	A	E	D		E	C	
Approach Delay (s/veh)		4.2			3.5			52.0			41.9	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	0	41	0	1	16	0	4	2		8	1	
Queue Length 95th (ft)	25	183	19	15	71	3	14	17		27	25	
Internal Link Dist (ft)		866			706			447			279	
Turn Bay Length (ft)	180		375	165		160						
Base Capacity (vph)	865	2928	1359	607	2833	1311	323	314		166	326	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.10	0.30	0.10	0.08	0.16	0.05	0.03	0.02		0.06	0.06	

Intersection Summary

Area Type:	Other
Cycle Length:	130
Actuated Cycle Length:	130
Offset:	99 (76%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	45
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.30
Intersection Signal Delay (s/veh):	5.1
Intersection LOS:	A
Intersection Capacity Utilization:	45.3%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 2: Bella Vista Parkway/Chase Court & Ferry Road



Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↗		↘	↗	
Traffic Vol, veh/h	27	739	23	9	444	11	2	0	1	19	0	41
Future Vol, veh/h	27	739	23	9	444	11	2	0	1	19	0	41
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	215	-	140	165	-	215	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	2	0	0	2	0	0	0	0	0	0	0
Mvmt Flow	30	821	26	10	493	12	2	0	1	21	0	46

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	506	0	0	847	0	0	1148	1407	411	984	1420	247
Stage 1	-	-	-	-	-	-	881	881	-	513	513	-
Stage 2	-	-	-	-	-	-	267	526	-	471	907	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1229	-	-	982	-	-	*376	237	*893	*545	231	*974
Stage 1	-	-	-	-	-	-	*485	489	-	*690	650	-
Stage 2	-	-	-	-	-	-	*919	642	-	*842	474	-
Platoon blocked, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Cap-1 Maneuver	1229	-	-	982	-	-	*346	228	*893	*526	223	*974
Mov Cap-2 Maneuver	-	-	-	-	-	-	*346	228	-	*526	223	-
Stage 1	-	-	-	-	-	-	*474	477	-	*683	644	-
Stage 2	-	-	-	-	-	-	*867	635	-	*821	462	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.27	0.17	13.32	9.91
HCM LOS			B	A

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	346	893	1229	-	-	982	-	-	526	974
HCM Lane V/C Ratio	0.006	0.001	0.024	-	-	0.01	-	-	0.04	0.047
HCM Control Delay (s/veh)	15.5	9	8	-	-	8.7	-	-	12.1	8.9
HCM Lane LOS	C	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0	0	0.1	-	-	0	-	-	0.1	0.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗		↑↑				↗		↔	
Traffic Vol, veh/h	5	803	9	0	557	1	1	1	7	4	0	10
Future Vol, veh/h	5	803	9	0	557	1	1	1	7	4	0	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Stop	-	-	None
Storage Length	125	-	125	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	2	0	0	2	0	0	0	0	25	0	0
Mvmt Flow	5	882	10	0	612	1	1	1	8	4	0	11

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	613	0	-	-	-	0	1199	1507	441	1065	1506	307
Stage 1	-	-	-	-	-	-	893	893	-	613	613	-
Stage 2	-	-	-	-	-	-	306	613	-	453	893	-
Critical Hdwy	4.1	-	-	-	-	-	7.5	6.5	6.9	8	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	7	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	7	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3	3.75	4	3.3
Pot Cap-1 Maneuver	976	-	0	0	-	-	143	122	569	149	122	695
Stage 1	-	-	0	0	-	-	307	363	-	395	487	-
Stage 2	-	-	0	0	-	-	684	486	-	499	363	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	976	-	-	-	-	-	140	121	569	145	122	695
Mov Cap-2 Maneuver	-	-	-	-	-	-	140	121	-	145	122	-
Stage 1	-	-	-	-	-	-	305	360	-	395	487	-
Stage 2	-	-	-	-	-	-	674	486	-	488	360	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.05	0	11.41	16.32
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	569	976	-	-	-	333
HCM Lane V/C Ratio	0.014	0.006	-	-	-	0.046
HCM Control Delay (s/veh)	11.4	8.7	-	-	-	16.3
HCM Lane LOS	B	A	-	-	-	C
HCM 95th %tile Q(veh)	0	0	-	-	-	0.1

HCM 7th TWSC  
 5: Warrenville Road & Old Warrenville Road

05/28/2025

Intersection						
Int Delay, s/veh	0.6					
Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations		↗	↖	↕	↕	
Traffic Vol, veh/h	0	34	60	756	523	34
Future Vol, veh/h	0	34	60	756	523	34
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	305	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	2	2	2	0
Mvmt Flow	0	37	65	822	568	37

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	303	605	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.14	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.22	-	-	-
Pot Cap-1 Maneuver	0	699	969	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	699	969	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s/v10.43		0.66	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWRWBLn1	SEL	SET
Capacity (veh/h)	-	-	699	969
HCM Lane V/C Ratio	-	-	0.053	0.067
HCM Control Delay (s/veh)	-	-	10.4	9
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.2	0.2

Capacity Analysis Summary Sheets  
Year 2030 Total Projected Weekday Evening Peak Hour

Lanes, Volumes, Timings

1: Mill Street & Ferry Road & Warrenville Road

05/28/2025

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	520	85	246	564	450	64	433	161	242	266	8
Future Volume (vph)	36	520	85	246	564	450	64	433	161	242	266	8
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	2000	1900	1900	2000	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	325		160	370		400	255		280	380		130
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (ft)	165			80			120			170		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Ped Bike Factor												
Frt			0.850			0.850			0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3762	1615	1805	3762	1599	1736	3762	1599	1787	3800	1615
Flt Permitted	0.428			0.334			0.580			0.267		
Satd. Flow (perm)	813	3762	1615	635	3762	1599	1060	3762	1599	502	3800	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			124			266			142			91
Link Speed (mph)		40			40			40			40	
Link Distance (ft)		837			1935			1040			517	
Travel Time (s)		14.3			33.0			17.7			8.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	1%	4%	1%	1%	1%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	547	89	259	594	474	67	456	169	255	280	8
Turn Type	pm+pt	NA	pm+ov									
Protected Phases	5	2	3	1	6	7	3	8	1	7	4	5
Permitted Phases	2		2	6		6	8		8	4		4
Detector Phase	5	2	3	1	6	7	3	8	1	7	4	5
Switch Phase												
Minimum Initial (s)	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0	3.0	15.0	3.0
Minimum Split (s)	7.5	21.5	7.5	7.5	21.5	7.5	7.5	21.5	7.5	7.5	21.5	7.5
Total Split (s)	14.0	55.0	15.0	23.0	64.0	23.0	15.0	49.0	23.0	23.0	57.0	14.0
Total Split (%)	9.3%	36.7%	10.0%	15.3%	42.7%	15.3%	10.0%	32.7%	15.3%	15.3%	38.0%	9.3%
Yellow Time (s)	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5	3.5	4.5	3.5
All-Red Time (s)	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0	1.0	2.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5	4.5	6.5	4.5
Lead/Lag	Lead	Lag	Lead									
Lead-Lag Optimize?	Yes											
Recall Mode	None	C-Min	None	None	C-Min	None						
Act Effct Green (s)	66.1	57.0	72.6	80.6	69.0	98.1	42.4	31.3	54.9	60.4	44.8	58.4
Actuated g/C Ratio	0.44	0.38	0.48	0.54	0.46	0.65	0.28	0.21	0.37	0.40	0.30	0.39

Lanes, Volumes, Timings

1: Mill Street & Ferry Road & Warrenville Road

05/28/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.09	0.38	0.11	0.55	0.34	0.42	0.20	0.58	0.25	0.64	0.25	0.01
Control Delay (s/veh)	19.2	32.7	0.9	24.9	28.8	7.1	28.3	55.9	6.9	38.1	39.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay (s/veh)	19.2	32.7	0.9	24.9	28.8	7.1	28.3	55.9	6.9	38.1	39.5	0.0
LOS	B	C	A	C	C	A	C	E	A	D	D	A
Approach Delay (s/veh)		27.8			20.3			41.2			38.3	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	16	177	0	140	206	83	39	213	17	166	106	0
Queue Length 95th (ft)	36	221	5	210	272	184	69	253	60	231	144	0
Internal Link Dist (ft)		757			1855			960			437	
Turn Bay Length (ft)	325		160	370		400	255		280	380		130
Base Capacity (vph)	434	1462	862	493	1731	1140	359	1065	699	398	1290	709
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.37	0.10	0.53	0.34	0.42	0.19	0.43	0.24	0.64	0.22	0.01

Intersection Summary

Area Type:	Other
Cycle Length:	150
Actuated Cycle Length:	150
Offset:	39 (26%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.64
Intersection Signal Delay (s/veh):	29.3
Intersection LOS:	C
Intersection Capacity Utilization:	71.5%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 1: Mill Street & Ferry Road & Warrenville Road



Lanes, Volumes, Timings

2: Bella Vista Parkway/Chase Court & Ferry Road

05/28/2025



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	16	530	33	3	645	8	74	0	61	58	0	75
Future Volume (vph)	16	530	33	3	645	8	74	0	61	58	0	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	180		375	165		160	0		0	0		0
Storage Lanes	1		1	1		1	2		0	1		0
Taper Length (ft)	210			165			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.97	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor												
Frt			0.850			0.850		0.850			0.850	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	3574	1615	1805	3574	1615	3433	1615	0	1805	1615	0
Flt Permitted	0.358			0.433			0.950			0.950		
Satd. Flow (perm)	680	3574	1615	823	3574	1615	3433	1615	0	1805	1615	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109			109		295			355	
Link Speed (mph)		40			40			25			25	
Link Distance (ft)		946			786			527			359	
Travel Time (s)		16.1			13.4			14.4			9.8	
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	2%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	18	582	36	3	709	9	81	67	0	64	82	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases	2		2	6		6						
Detector Phase	5	2	2	1	6	6	3	8		7	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	4.0		3.0	4.0	
Minimum Split (s)	7.0	21.0	21.0	7.0	21.0	21.0	7.0	10.0		7.0	10.0	
Total Split (s)	14.0	63.0	63.0	14.0	63.0	63.0	34.0	58.0		15.0	39.0	
Total Split (%)	9.3%	42.0%	42.0%	9.3%	42.0%	42.0%	22.7%	38.7%		10.0%	26.0%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	1.0	1.5	1.5	1.0	1.5	1.5	1.0	1.5		1.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.0	6.0	6.0	4.0	6.0	6.0	4.0	6.0		4.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes		Yes	Yes								
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effct Green (s)	119.1	115.8	115.8	117.1	111.8	111.8	8.9	7.6		10.7	7.3	
Actuated g/C Ratio	0.79	0.77	0.77	0.78	0.75	0.75	0.06	0.05		0.07	0.05	

Lanes, Volumes, Timings

2: Bella Vista Parkway/Chase Court & Ferry Road

05/28/2025

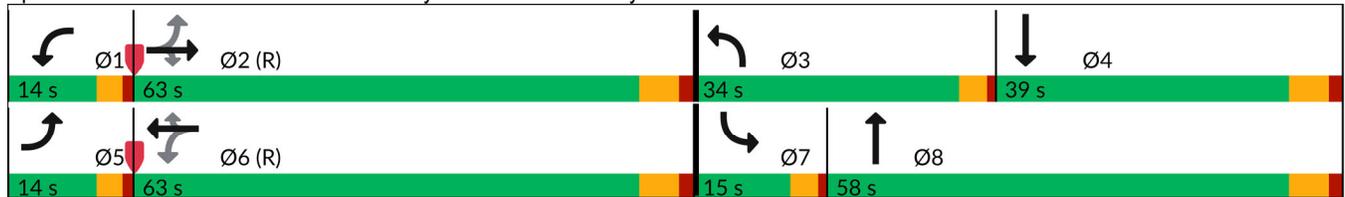


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.03	0.21	0.03	0.00	0.27	0.01	0.40	0.19		0.50	0.20	
Control Delay (s/veh)	3.8	5.4	0.0	1.0	1.6	0.0	73.3	1.1		79.3	1.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay (s/veh)	3.8	5.4	0.0	1.0	1.6	0.0	73.3	1.1		79.3	1.1	
LOS	A	A	A	A	A	A	E	A		E	A	
Approach Delay (s/veh)		5.0			1.6			40.6			35.4	
Approach LOS		A			A			D			D	
Queue Length 50th (ft)	3	66	0	0	24	0	40	0		61	0	
Queue Length 95th (ft)	10	127	0	m1	32	m0	68	0		110	0	
Internal Link Dist (ft)		866			706			447			279	
Turn Bay Length (ft)	180		375	165		160						
Base Capacity (vph)	618	2760	1271	722	2662	1231	686	752		145	632	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.03	0.21	0.03	0.00	0.27	0.01	0.12	0.09		0.44	0.13	

Intersection Summary

Area Type: Other  
 Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 87 (58%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green  
 Natural Cycle: 45  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.50  
 Intersection Signal Delay (s/veh): 9.4      Intersection LOS: A  
 Intersection Capacity Utilization 37.7%      ICU Level of Service A  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Bella Vista Parkway/Chase Court & Ferry Road



Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑	↗	↘	↑↑	↗	↘	↗	↘	↘	↗	↗
Traffic Vol, veh/h	36	605	7	8	599	29	27	0	22	15	0	30
Future Vol, veh/h	36	605	7	8	599	29	27	0	22	15	0	30
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None									
Storage Length	215	-	140	165	-	215	0	-	-	0	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	4	1	17	0	1	0	0	0	0	0	0	0
Mvmt Flow	40	672	8	9	666	32	30	0	24	17	0	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	698	0	0	680	0	0	1103	1468	336	1099	1443	333
Stage 1	-	-	-	-	-	-	752	752	-	683	683	-
Stage 2	-	-	-	-	-	-	351	716	-	416	760	-
Critical Hdwy	4.18	-	-	4.1	-	-	7.5	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.5	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.24	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1077	-	-	1121	-	-	*484	230	*920	*488	241	*920
Stage 1	-	-	-	-	-	-	*556	545	-	*620	592	-
Stage 2	-	-	-	-	-	-	*867	570	-	*867	540	-
Platoon blocked, %	0	-	-	0	-	-	0	0	0	0	0	0
Mov Cap-1 Maneuver	1077	-	-	1121	-	-	*445	219	*920	*453	230	*920
Mov Cap-2 Maneuver	-	-	-	-	-	-	*445	219	-	*453	230	-
Stage 1	-	-	-	-	-	-	*535	525	-	*615	587	-
Stage 2	-	-	-	-	-	-	*829	565	-	*813	520	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.47	0.1	11.58	10.45
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	445	920	1077	-	-	1121	-	-	453	920
HCM Lane V/C Ratio	0.067	0.027	0.037	-	-	0.008	-	-	0.037	0.036
HCM Control Delay (s/veh)	13.7	9	8.5	-	-	8.2	-	-	13.2	9.1
HCM Lane LOS	B	A	A	-	-	A	-	-	B	A
HCM 95th %tile Q(veh)	0.2	0.1	0.1	-	-	0	-	-	0.1	0.1

Notes  
 ~: Volume exceeds capacity    \$: Delay exceeds 300s    +: Computation Not Defined    \*: All major volume in platoon

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑↑	↗		↑↑				↗		↔	
Traffic Vol, veh/h	13	534	9	0	929	4	0	1	7	3	0	7
Future Vol, veh/h	13	534	9	0	929	4	0	1	7	3	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	Stop	-	-	None
Storage Length	125	-	125	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	14	568	10	0	988	4	0	1	7	3	0	7

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	993	0	-	-	-	0	-	1588	284	1303	1586	496
Stage 1	-	-	-	-	-	-	-	596	-	990	990	-
Stage 2	-	-	-	-	-	-	-	993	-	312	596	-
Critical Hdwy	4.1	-	-	-	-	-	-	6.5	6.9	7.5	6.5	6.9
Critical Hdwy Stg 1	-	-	-	-	-	-	-	5.5	-	6.5	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	-	5.5	-	6.5	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	-	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	705	-	0	0	-	-	0	109	719	120	109	524
Stage 1	-	-	0	0	-	-	0	495	-	268	327	-
Stage 2	-	-	0	0	-	-	0	326	-	679	495	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	705	-	-	-	-	-	-	107	719	116	107	524
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	107	-	116	107	-
Stage 1	-	-	-	-	-	-	-	486	-	268	327	-
Stage 2	-	-	-	-	-	-	-	326	-	657	486	-

Approach	EB	WB	NB	SB
HCM Control Delay, s/v	0.24	0	10.06	19.77
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	719	705	-	-	-	254
HCM Lane V/C Ratio	0.01	0.02	-	-	-	0.042
HCM Control Delay (s/veh)	10.1	10.2	-	-	-	19.8
HCM Lane LOS	B	B	-	-	-	C
HCM 95th %tile Q(veh)	0	0.1	-	-	-	0.1

HCM 7th TWSC  
 5: Warrenville Road & Old Warrenville Road

05/28/2025

Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations		↗	↖	↕↕	↕↕	
Traffic Vol, veh/h	0	59	29	515	875	44
Future Vol, veh/h	0	59	29	515	875	44
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	-	0	305	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	1	1	0
Mvmt Flow	0	63	31	548	931	47

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	-	489	978	0	-	0
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.9	4.1	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.3	2.2	-	-	-
Pot Cap-1 Maneuver	0	530	714	-	-	-
Stage 1	0	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	-	530	714	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	SE	NW
HCM Control Delay, s/v	12.7	0.55	0
HCM LOS	B		

Minor Lane/Major Mvmt	NWT	NWRWBLn1	SEL	SET
Capacity (veh/h)	-	-	530	714
HCM Lane V/C Ratio	-	-	0.118	0.043
HCM Control Delay (s/veh)	-	-	12.7	10.3
HCM Lane LOS	-	-	B	B
HCM 95th %tile Q(veh)	-	-	0.4	0.1