

# Traffic Impact Study Proposed Industrial Development

Chicago, Illinois



Prepared For:

West Pullman Development Partners, LLC



May 25, 2022

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# I. Executive Summary

This report summarizes the results of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed industrial development to be located in the southwest corner of 119<sup>th</sup> Street with Morgan Street in Chicago, Illinois. The objectives of the traffic study are as follows:

- Determine the existing vehicular, pedestrian, bicycle, and public transportation conditions in the study area to establish a base condition.
- Assess the impact that the proposed development will have on transportation conditions in the area.
- Determine any street, access, bicycle, and pedestrian modifications and/or improvements that will be necessary to effectively accommodate and mitigate future conditions.

Vehicle, pedestrian, and bicycle counts were conducted during the weekday morning and weekday evening peak periods at the intersections of 119<sup>th</sup> Street with Marshfield Avenue, Ashland Avenue, Morgan Street, Halsted Street and the access drives west of the site and at the intersections of 120<sup>th</sup> Street with Morgan Street and Halsted Street in order to determine the general peak hour of traffic activity during these time periods.

As proposed, the site will be developed with an approximately 413,400 square-foot industrial building. The development will provide 392 parking spaces for employees on the east, west, and north sides of the building, 97 truck loading bays on the south side of the building and 119 trailer storage spaces on the south side of the site. Access to the site is proposed to be provided via three full movement access drives off 119<sup>th</sup> Street, a full movement access drive off 120<sup>th</sup> Street, and a full movement access drive off 120<sup>th</sup> Street.

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

- Area intersections have sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no street improvements or traffic control modifications are required.
- The proposed access system will be adequate in accommodating the traffic estimated to be generated by the development.
- All truck traffic will enter and exit the site from 120<sup>th</sup> Street or Morgan Street and will access the greater street system via the signalized intersections of 119<sup>th</sup> Street with Morgan Street and 120<sup>th</sup> Street with Halsted Street.

# 1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O’Hara, Aboona, Inc. (KLOA, Inc.) for a proposed industrial development to be located in Chicago, Illinois. The site, which is currently vacant, is located between 119<sup>th</sup> Street and 120<sup>th</sup> Street west of Morgan Street. As proposed, the site will be developed with an approximately 413,400 square-foot warehouse building. Access to the site is proposed to be provided via three full movement access drives off 119<sup>th</sup> Street, a full movement access drive off 120<sup>th</sup> Street, and a full movement access drive off 120<sup>th</sup> Street.

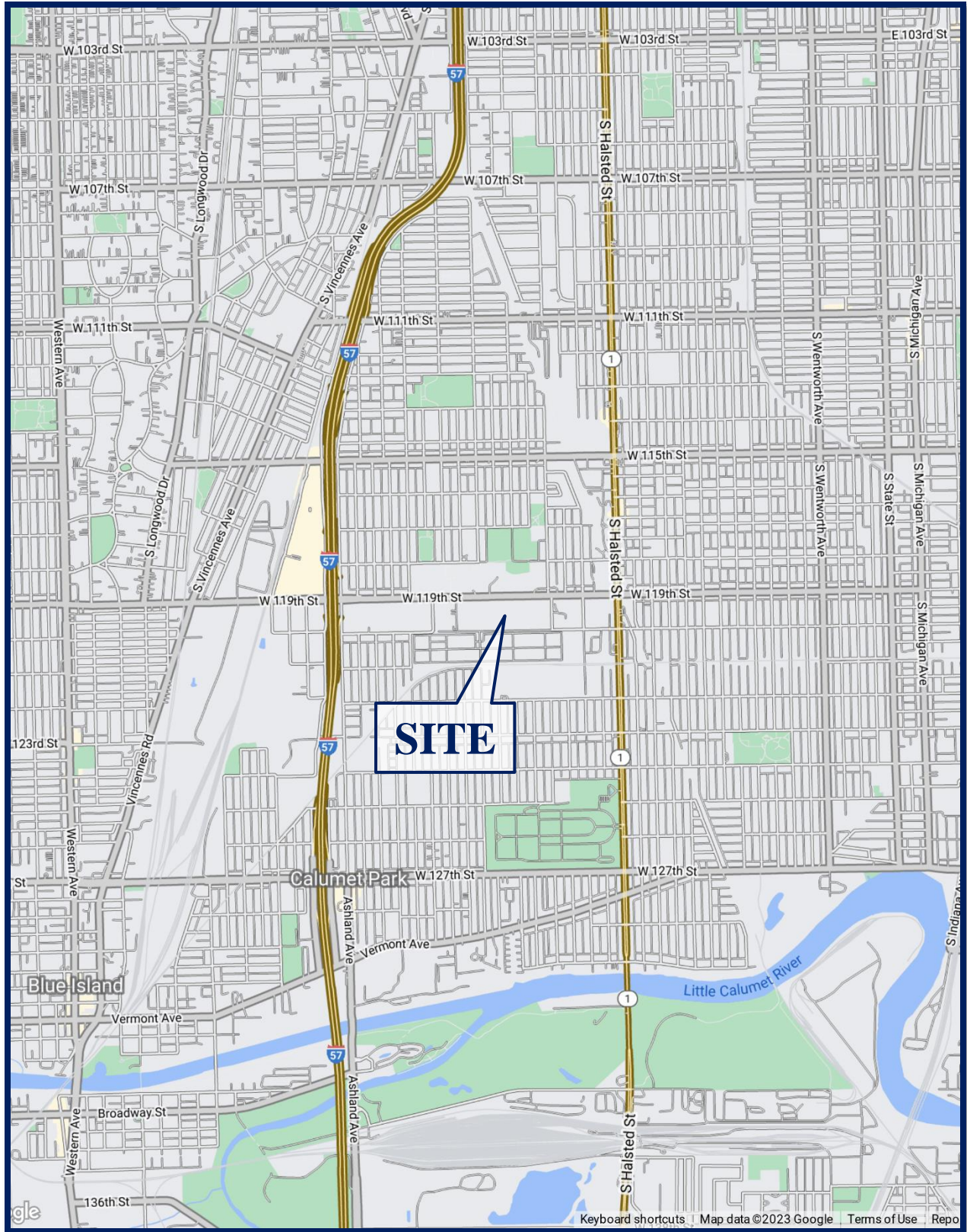
The purpose of this study was to examine existing traffic conditions, assess the impact that the proposed development will have on traffic conditions in the area, and determine if any improvements to the transportation system are required to accommodate the proposed development. **Figure 1** shows the location of the site in relation to the area street system. **Figure 2** shows an aerial view of the site.

The sections of this report present the following:

- Existing street conditions
- A description of the proposed development
- Directional distribution of the development traffic
- Vehicle trip generation for the development
- Future traffic conditions including access to the development
- Traffic analyses for the weekday morning and weekday evening peak hours
- Evaluation and recommendations with respect to adequacy of the site access, on-site circulation, and adjacent street system.

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 street system using peak hour traffic volumes from traffic counts conducted in 2023.
2. Year 2029 Total Projected Conditions – Analyzes the capacity of the future street 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 proposed development.



Site Location

Figure 1



**Aerial View of Site**  
*348 W 40<sup>th</sup> Place*  
*Chicago, Illinois*

**Figure 2**

## 2. Existing Conditions

Existing transportation conditions in the vicinity of the site were documented based on field visits conducted by KLOA, Inc. in order to obtain a database for projecting future conditions. The following provides a description of the geographical location of the site, physical characteristics of the area street system including lane usage and traffic control devices, and existing peak hour traffic volumes.

### Site Location

The site is generally bounded by 119<sup>th</sup> Street to the north, Morgan Street to the east, 120<sup>th</sup> Street to the south, and MIFAB to the west. The area offers a mixture of residential and industrial uses. The Ray and Joan Kroc Corps Community Center is located on the north side of 119<sup>th</sup> Street. An Exelon Generation solar power plant is located on the south side of 120<sup>th</sup> Street.

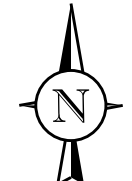
### Existing Street System Characteristics

The characteristics of the existing streets near the development are described below and illustrated in **Figure 3**. All streets are under the jurisdiction of the Chicago Department of Transportation (CDOT) unless otherwise noted.

*119<sup>th</sup> Street* is an east-west, minor arterial street. West of Ashland Avenue, 119<sup>th</sup> Street provides two lanes in each direction. East of Ashland Avenue, 119<sup>th</sup> Street provides one lane and a bike lane in each direction. At its signalized intersection with Marshfield Avenue, 119<sup>th</sup> Street provides two through lanes and an exclusive right-turn lane on the eastbound approach and a through lane and a shared left-turn/through lane on the westbound approach. At its signalized intersection with Ashland Avenue, 119<sup>th</sup> Street provides an exclusive left-turn lane and two through lanes on the eastbound approach and two through lanes and an exclusive right-turn lane on the westbound approach. At its signalized intersection with Morgan Street, 119<sup>th</sup> Street provides a shared left-turn/through/right-turn lane on both approaches. At its signalized intersection with Halsted Street, 119<sup>th</sup> Street provides an exclusive left-turn lane and a shared through/right-turn lane on both approaches. West of Ashland Avenue, 119<sup>th</sup> Street is under the jurisdiction of the Illinois Department of Transportation (IDOT) and carries an Annual Average Daily Traffic of 19,900 vehicles (IDOT 2021). East of Ashland Avenue, 119<sup>th</sup> Street is under the jurisdiction of the Chicago Department of Transportation (CDOT) and carries an AADT of 13,400 vehicles (IDOT 2018).









*Halsted Street (Illinois Route 1)* is a north-south, minor arterial street that provides two lanes in each direction. At its signalized intersections with 119<sup>th</sup> Street and 120<sup>th</sup> Street, Halsted Street provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on both approaches. Halsted Street is under the jurisdiction of IDOT and carries an Annual Average Daily Traffic of 19,700 vehicles north of 119<sup>th</sup> Street and 14,600 vehicles south of 119<sup>th</sup> Street (IDOT 2021)

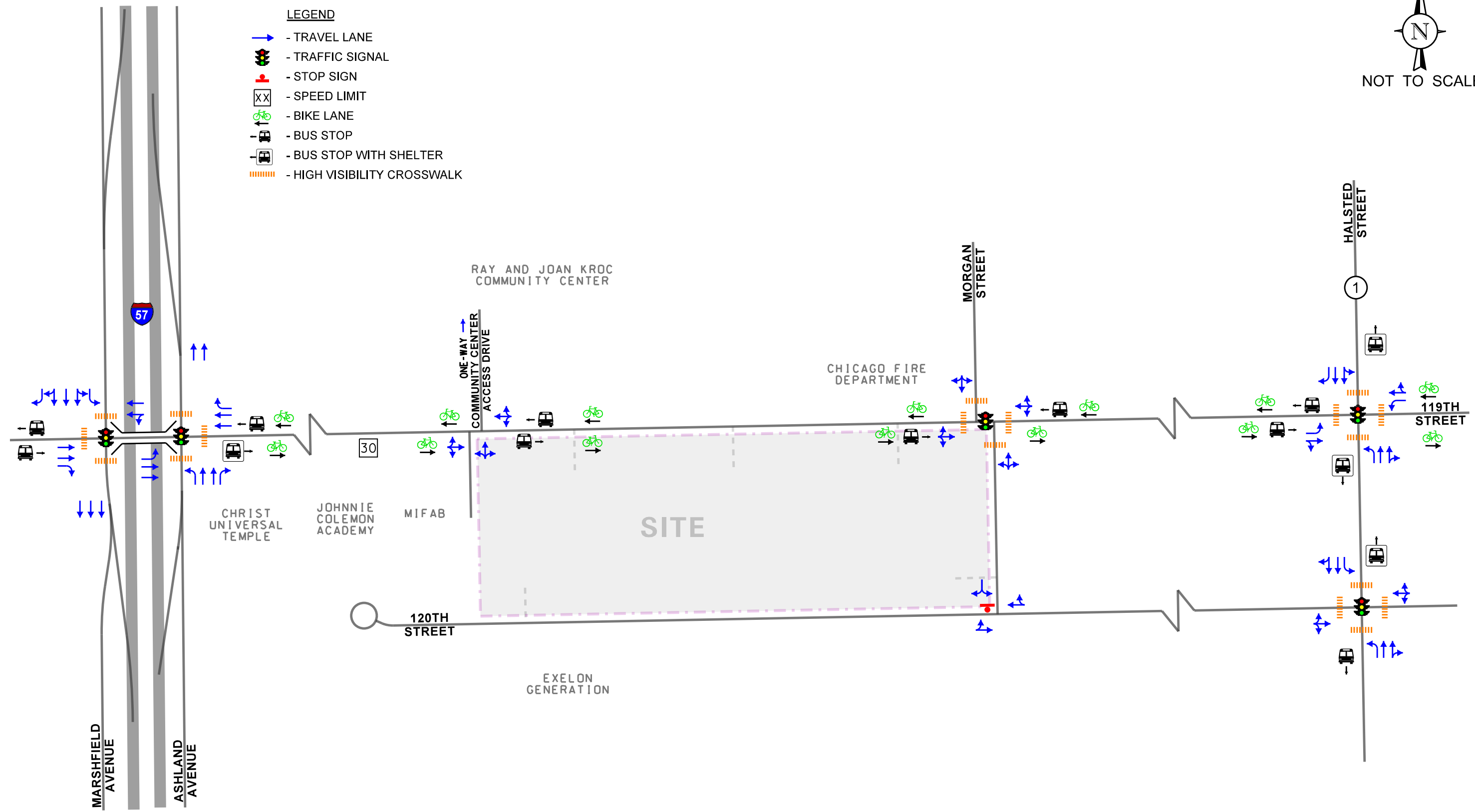




NOT TO SCALE

**LEGEND**

-  - TRAVEL LANE
-  - TRAFFIC SIGNAL
-  - STOP SIGN
-  - SPEED LIMIT
-  - BIKE LANE
-  - BUS STOP
-  - BUS STOP WITH SHELTER
-  - HIGH VISIBILITY CROSSWALK



PROPOSED INDUSTRIAL DEVELOPMENT  
CHICAGO, ILLINOIS

EXISTING STREET CHARACTERISTICS

*Marshfield Avenue* is a southbound only, major collector street that operates as a frontage road for Interstate 57 (I-57). An I-57 southbound off-ramp merges into Marshfield Avenue north of 119<sup>th</sup> Street and an I-57 southbound on-ramp branches from Marshfield Avenue south of 119<sup>th</sup> Street. At its signalized intersection with 119<sup>th</sup> Street, Marshfield Avenue provides an exclusive left-turn lane, a shared left-turn/through lane, a through lane, a shared through/right-turn lane, and an exclusive right-turn lane on the southbound approach. Marshfield Avenue is under the jurisdiction of CDOT within city limits and the Village of Calumet Park within village limits. Marshfield Avenue carries an AADT of 2,800 vehicles (IDOT 2018).

*Ashland Avenue* is a northbound only, major collector street that operates as a frontage road for Interstate 57 (I-57). An I-57 southbound off-ramp merges into Ashland Avenue south of 119<sup>th</sup> Street and an I-57 northbound on-ramp branches from Ashland Avenue north of 119<sup>th</sup> Street. At its signalized intersection with 119<sup>th</sup> Street, Ashland Avenue provides an exclusive left-turn lane, a shared left-turn/through lane, a through lane, and an exclusive right-turn lane on the southbound approach. Ashland Avenue is under the jurisdiction of IDOT and carries an AADT of 2,000 vehicles (IDOT 2018).

*120<sup>th</sup> Street* is an east-west, local street that provides one lane in each direction. At its signalized intersection with Halsted Street, 120<sup>th</sup> Street provides a shared left-turn/through/right-turn lane on both approaches. At its unsignalized intersection with Morgan Street, 120<sup>th</sup> Street provides one lane on both approaches. It should be noted that 120<sup>th</sup> Street has a cul-de-sac approximately 2,200 feet west of Morgan Street that separates the segment of 120<sup>th</sup> Street along the site frontage from the western segment. 120<sup>th</sup> Street is under the jurisdiction of CDOT.

*Morgan Street* is a north-south, local street that extends north from 120<sup>th</sup> Street and provides one lane in each direction. At its signalized intersection with 119<sup>th</sup> Street the north leg of Morgan Street is offset approximately 55 feet west of the south leg. Morgan Street provides a shared left-turn/through/right-turn lane on both approaches. At its unsignalized intersection with 120<sup>th</sup> Street, Morgan Street, terminates and provides a shared left-turn/right-turn on the southbound approach and is under stop sign control. Morgan Street is under the jurisdiction of CDOT.

## Alternative Modes of Transportation

Accessibility to and from the area is enhanced by the various alternative modes of transportation serving the area as summarized below.

**Public Transportation.** The area is served by Metra Commuter Rail via the West Pullman Metra Electric station located approximately one-quarter of a mile southeast of the site and via the 119<sup>th</sup> Street Rock Island station located approximately one mile west of the site.

In addition, the following bus routes serve the immediate area and have stops near the facility:

*Route 8A (South Halsted)* runs along Halsted Street between 79<sup>th</sup> Street and 127<sup>th</sup> Street. It operates daily, including holidays, from approximately 5:25 A.M. to 12:25 A.M. Notable stops include the 79<sup>th</sup> Street Red Line Station, the Gresham Rock Island Metra station, the West Pullman Metra Electric station, and Simeon High School.

*Route 108 (Halsted/95th)* runs along Hasted Avenue from 95<sup>th</sup> Street to 127<sup>th</sup> Street. It operates weekdays from 5:45 A.M. to 9:00 P.M. Notable stops include the West Pullman Metra Electric station and Carver Military Academy.

*Route 119 (Michigan-119th)* runs along Michigan Avenue from 95<sup>th</sup> Street to 119<sup>th</sup> Street and along 119<sup>th</sup> Street from Western Avenue to Michigan Avenue. It operates daily, including holidays, from approximately 4:00 A.M. to 1:00 A.M. Notable stops include the 79<sup>th</sup> Street Red Line Station, the 119<sup>th</sup> Street Rock Island Metra station, Harlan High School, and Roseland Hospital.

***Pedestrian Accommodations.*** Sidewalks and high-visibility crosswalks are generally provided on the majority of the streets within the study area.

***Bike Facilities.*** 119<sup>th</sup> Street provides dedicated bike lanes in both directions east of Ashland Avenue. According to the City of Chicago's *Streets for Cycling Plan 2020*, 119<sup>th</sup> Street is designated as a Crosstown Bike Route.

## 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 in March, 2023 during the weekday morning (6:00 A.M. to 9:00 A.M.) and weekday evening (3:00 P.M. to 6:00 P.M.) peak periods at the following intersections:

- 119<sup>th</sup> Street with Marshfield Avenue
- 119<sup>th</sup> Street with Ashland Avenue
- 119<sup>th</sup> Street with Morgan Street
- 119<sup>th</sup> Street with Halsted Street
- 119<sup>th</sup> Street with the MIFAB and community center access drives located immediately west of the site
- 120<sup>th</sup> Street with Morgan Street
- 120<sup>th</sup> Street with Halsted Street

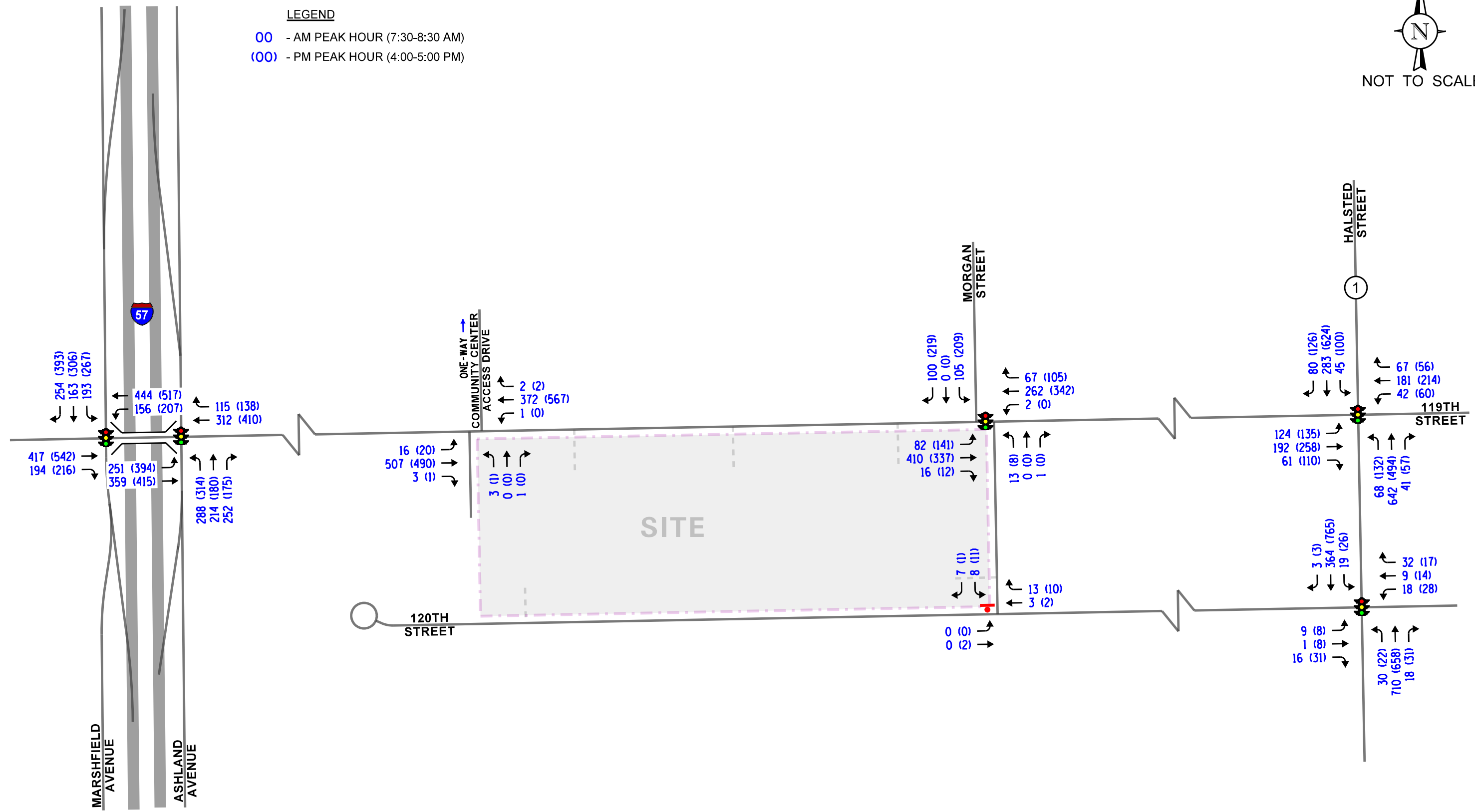
The results of the traffic counts indicated that the weekday morning peak hour of traffic occurs from 7:30 A.M. to 8:30 A.M. and the weekday evening peak hour of traffic occurs from 4:00 P.M. to 5:00 P.M. Copies of the traffic count summary sheets are included in the Appendix.

**Figure 4** illustrates the existing peak hour vehicle traffic volumes, inclusive of heavy vehicles. **Figure 5** illustrates the existing heavy vehicle peak hour traffic volumes. **Figure 6** illustrates the existing pedestrian and bicycle volumes, showing direction of travel.



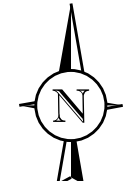
NOT TO SCALE

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



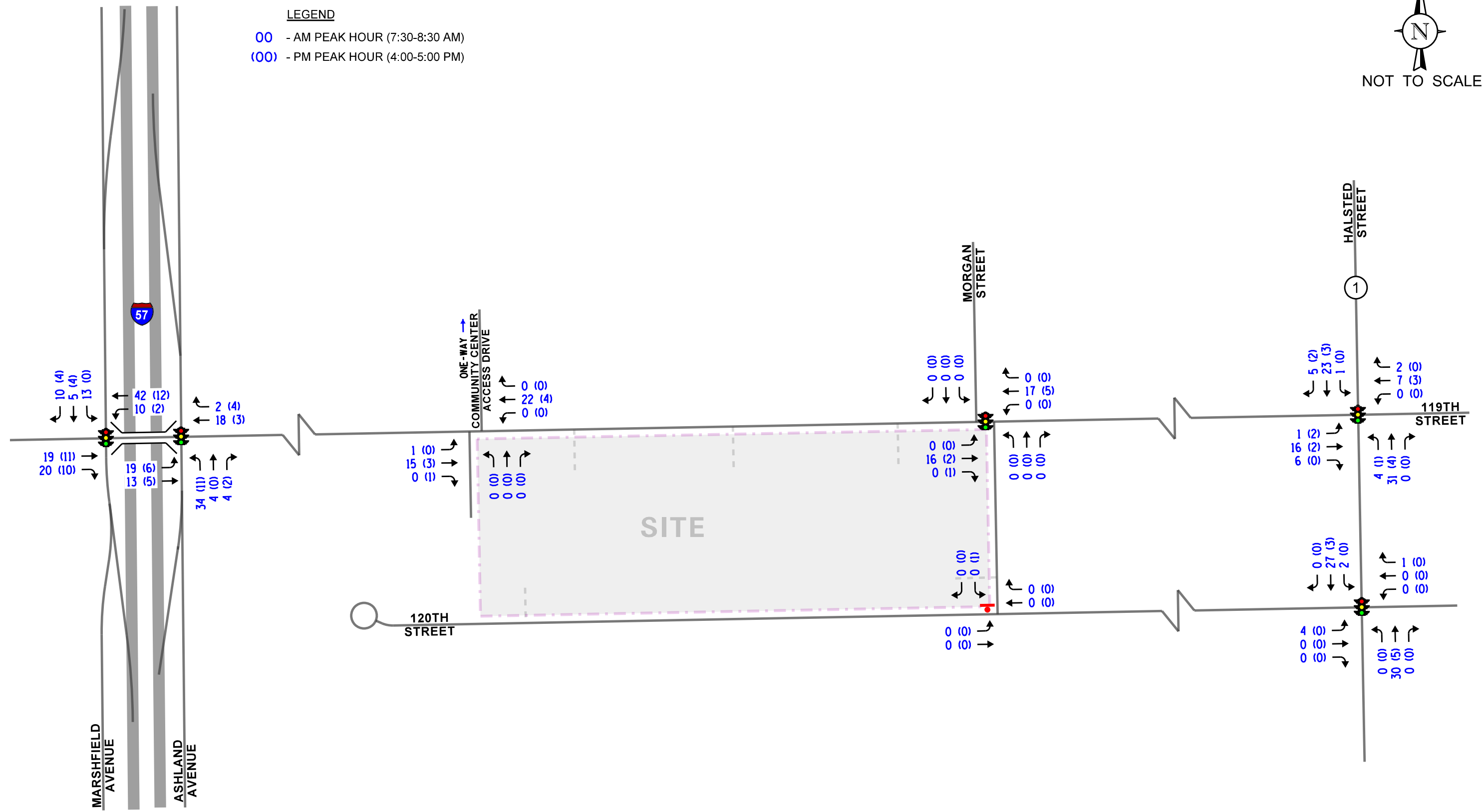
PROPOSED INDUSTRIAL DEVELOPMENT  
 CHICAGO, ILLINOIS

EXISTING TRAFFIC VOLUMES



NOT TO SCALE

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



PROPOSED INDUSTRIAL DEVELOPMENT  
CHICAGO, ILLINOIS

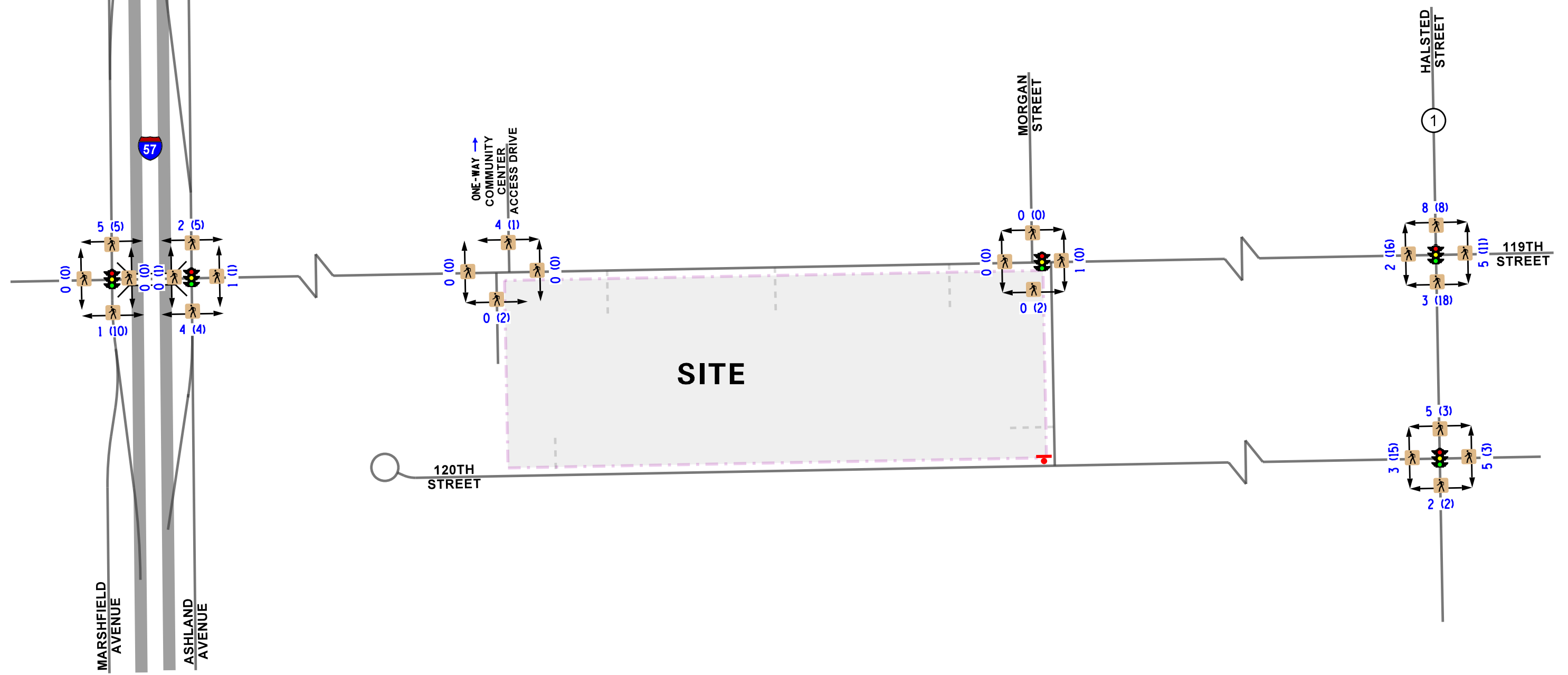
EXISTING TRAFFIC VOLUMES - TRUCKS



NOT TO SCALE

**LEGEND**

- 00 - AM PEAK HOUR (7:30-8:30 AM)
- (00) - PM PEAK HOUR (4:00-5:00 PM)
- ↔ (00) 🚶 - PEDESTRIAN VOLUME



PROPOSED INDUSTRIAL DEVELOPMENT  
CHICAGO, ILLINOIS

EXISTING PEDESTRIAN TRAFFIC VOLUMES

### 3. Traffic Characteristics of the Proposed Development

In order to properly evaluate future traffic conditions in the surrounding area, 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 Development Plan

As proposed, the site will be developed with an approximately 413,400 square-foot industrial building. The development will provide 392 parking spaces for employees on the east, west, and north sides of the building, 97 truck loading bays on the south side of the building and 119 trailer storage spaces on the south side of the site. Access to the development is proposed to be provided as follows:

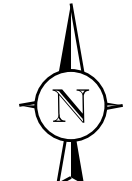
- Three full movement access drives on the south side of 119<sup>th</sup> Street located approximately 300, 900, and 1,470 feet west of Morgan Street. These access drives will provide one inbound lane and one outbound lane with outbound movements under stop sign control. These access drives will serve passenger vehicles only.
- A full movement access drive on the west side of Morgan Street located approximately 115 feet north of 120<sup>th</sup> Street. This access drive will provide one inbound lane and one outbound lane wide enough to accommodate truck turning movements. Outbound movements will be under stop sign control. This access drive will serve passenger vehicles and trucks.
- A full movement access drive on the north side of 120<sup>th</sup> Street located approximately 1,670 feet west of Morgan Street. This access drive will provide one inbound lane and one outbound lane wide enough to accommodate truck turning movements. Outbound movements will be under stop sign control. This access drive will primarily serve trucks.

A copy of the preliminary site plan is included in the appendix.

#### Directional Distribution

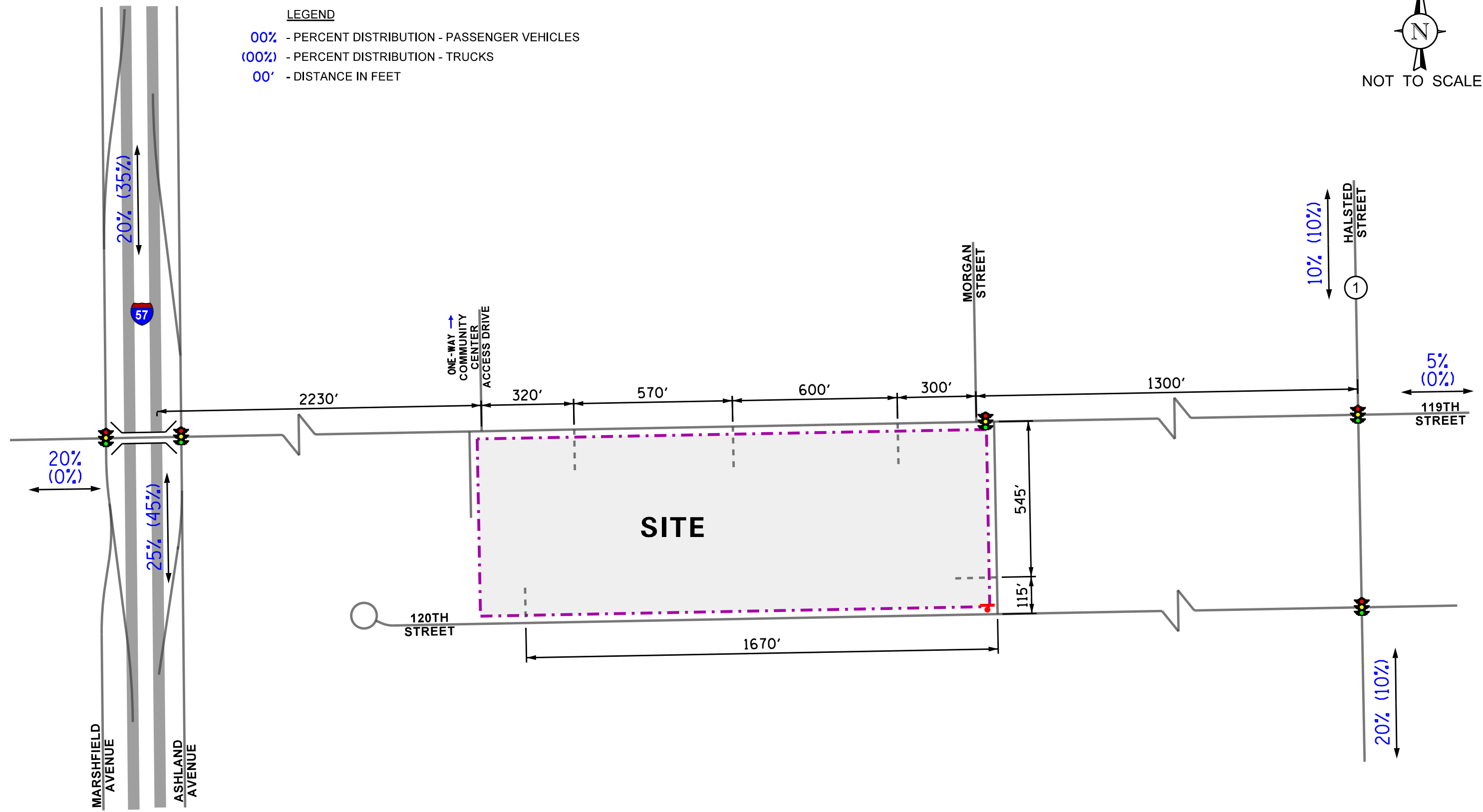
The directions from which traffic will approach and depart the site was estimated based on existing travel patterns, as determined from the traffic counts and the proposed access system of the development. **Figure 7** illustrates the directional distribution of traffic.

It should be noted that based on the proposed access system all truck traffic will enter and exit the site from 120<sup>th</sup> Street or Morgan Street. These trucks will then be able to access the greater street system via the signalized intersections of 119<sup>th</sup> Street with Morgan Street and 120<sup>th</sup> Street with Halsted Street.



NOT TO SCALE

**LEGEND**  
 00% - PERCENT DISTRIBUTION - PASSENGER VEHICLES  
 (00%) - PERCENT DISTRIBUTION - TRUCKS  
 00' - DISTANCE IN FEET



PROPOSED INDUSTRIAL  
 DEVELOPMENT  
 CHICAGO, ILLINOIS

DIRECTIONAL DISTRIBUTION



## Development-Generated Traffic Volumes

The total number of peak hour vehicle trips estimated to be generated by the proposed development was based on Warehousing (Land-Use Code 150) vehicle trip generation rates contained in *Trip Generation Manual*, 11<sup>th</sup> Edition, published by the Institute of Transportation Engineers (ITE). **Table 1** summarizes the trips projected to be generated by the development during the peak hours and on a daily basis. **Table 2** summarizes the trips projected to be generated by the development throughout the day. Copies of the ITE trip generation rates are included in the Appendix.

It should be noted that given the location of the site within an urban area and the proximity of the site to public transportation and alternative modes of transportation, the number of passenger vehicle trips will be reduced. However, to provide a conservative analysis, no reduction was applied.

Table 1  
ESTIMATED DAILY AND PEAK HOUR SITE GENERATED TRAFFIC

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
<b>150</b>	<b>Warehousing (413,400 s.f.)</b>	<b>60</b>	<b>18</b>	<b>78</b>	<b>23</b>	<b>58</b>	<b>81</b>	<b>346</b>	<b>346</b>	<b>692</b>
	Truck Trips	6	10	16	10	9	19	116	116	232
	Passenger Vehicle Trips	54	8	62	13	49	62	230	230	460

Table 2  
ESTIMATED 24-HOUR SITE GENERATED TRAFFIC

Hour	Warehousing (ITE LUC 150) – 413,400 s.f.								
	Trucks			Passenger Vehicles			Total		
	In	Out	Total	In	Out	Total	In	Out	Total
0:00	0	0	0	1	1	2	1	1	2
1:00	0	0	0	1	3	4	1	3	4
2:00	1	2	3	0	0	0	1	2	3
3:00	2	1	3	0	0	0	2	1	3
4:00	2	3	5	2	1	3	4	4	8
5:00	4	4	8	8	3	11	12	7	19
6:00	6	4	10	21	5	26	27	9	36
7:00	4	9	13	21	5	26	25	14	39
8:00	6	10	16	54	8	62	60	18	78
9:00	14	8	22	12	10	22	26	18	44
10:00	9	13	22	9	6	15	18	19	37
11:00	12	13	25	9	10	19	21	23	44
12:00	9	6	15	20	18	38	29	24	53
13:00	10	8	18	10	10	20	20	18	38
14:00	7	7	14	17	12	29	24	19	43
15:00	12	8	20	7	28	35	19	36	55
16:00	10	9	19	13	49	62	23	58	81
17:00	4	5	9	10	23	33	14	28	42
18:00	1	1	2	5	17	22	6	18	24
19:00	1	1	2	2	4	6	3	5	8
20:00	2	2	4	0	1	1	2	3	5
21:00	0	2	2	2	10	12	2	12	14
22:00	0	0	0	4	2	6	4	2	6
23:00	0	0	0	2	4	6	2	4	6
<b>Total</b>	<b>116</b>	<b>116</b>	<b>232</b>	<b>230</b>	<b>230</b>	<b>460</b>	<b>346</b>	<b>346</b>	<b>692</b>

Based on daily trips (Table 1) and ITE's Hourly Distribution of Entering and Exiting Truck Trips and Vehicle Trips tables.

## 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 street system in accordance with the previously described directional distribution (Figure 7).

**Figure 8** illustrates the traffic assignment of the new passenger vehicle trips for the development. **Figure 9** illustrates the traffic assignment of the new truck trips for the development.

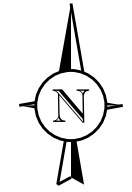
### Ambient Traffic Growth

To account for any additional increase in traffic due to other factors or developments not previously discussed, an ambient growth factor of 0.5 percent per year was applied to the study area over a six-year period to represent Year 2029 conditions. Furthermore, in order to account for the increase in population in the study area, bicycle and pedestrian volumes were increased by 10 percent at each intersection.

**Figure 10** illustrates the Year 2029 No Build Volumes which include the existing traffic volumes increased by the ambient growth factor.

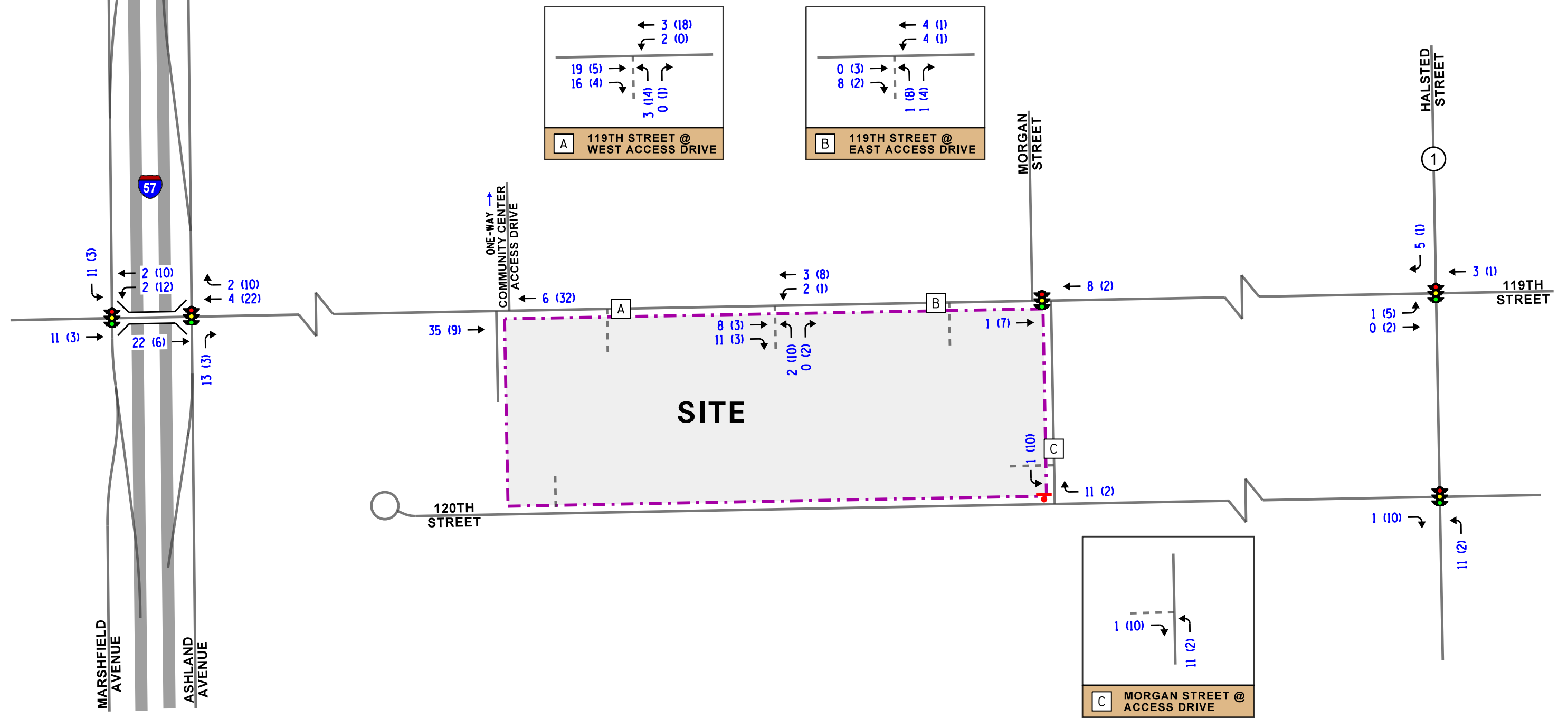
### Total Projected Traffic Volumes

The Year 2029 No Build volumes were combined with the new peak hour traffic volumes generated by the proposed development to determine the Year 2029 total traffic volumes, shown in **Figure 11**.



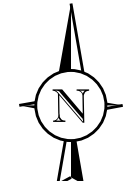
NOT TO SCALE

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



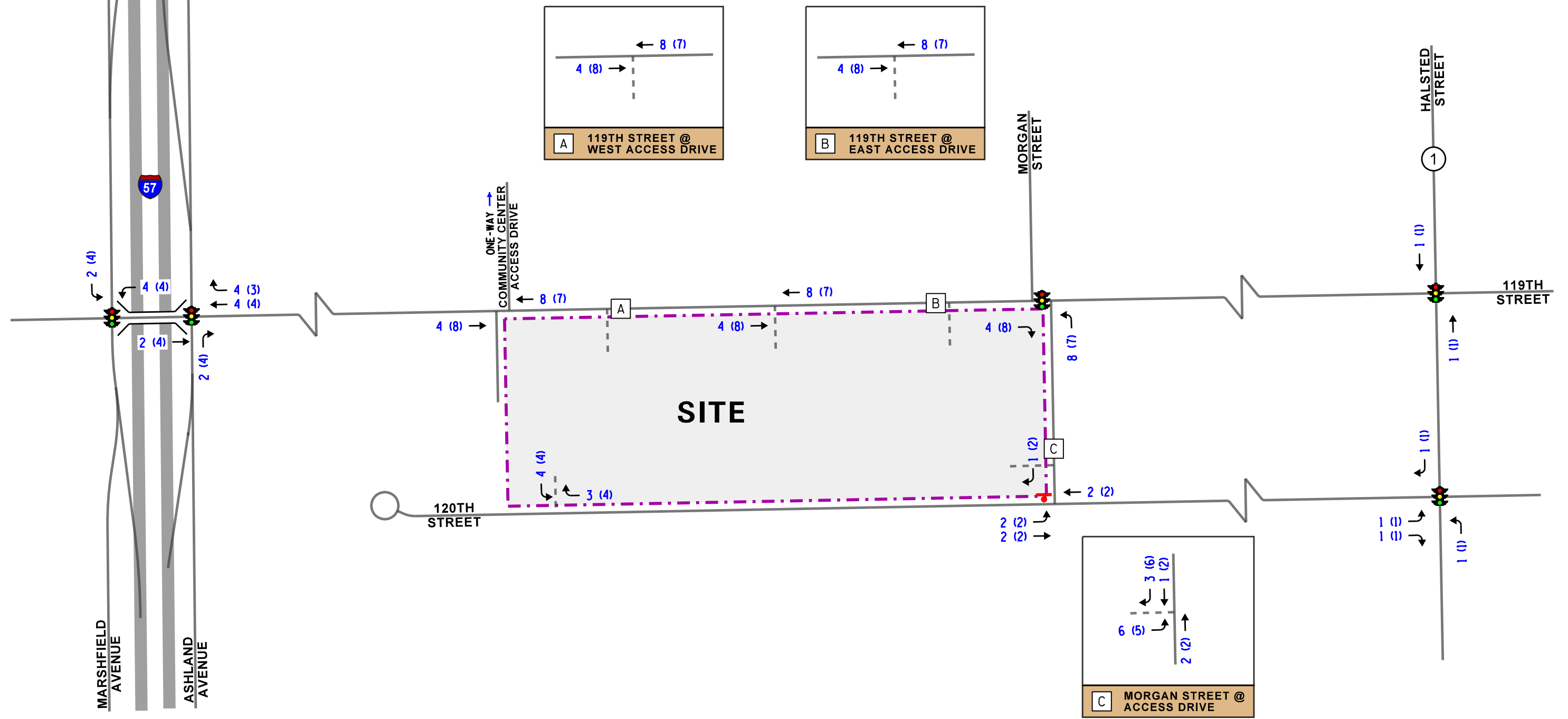
PROPOSED INDUSTRIAL DEVELOPMENT  
CHICAGO, ILLINOIS

SITE-GENERATED TRAFFIC VOLUMES - PASSENGER VEHICLES



NOT TO SCALE

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



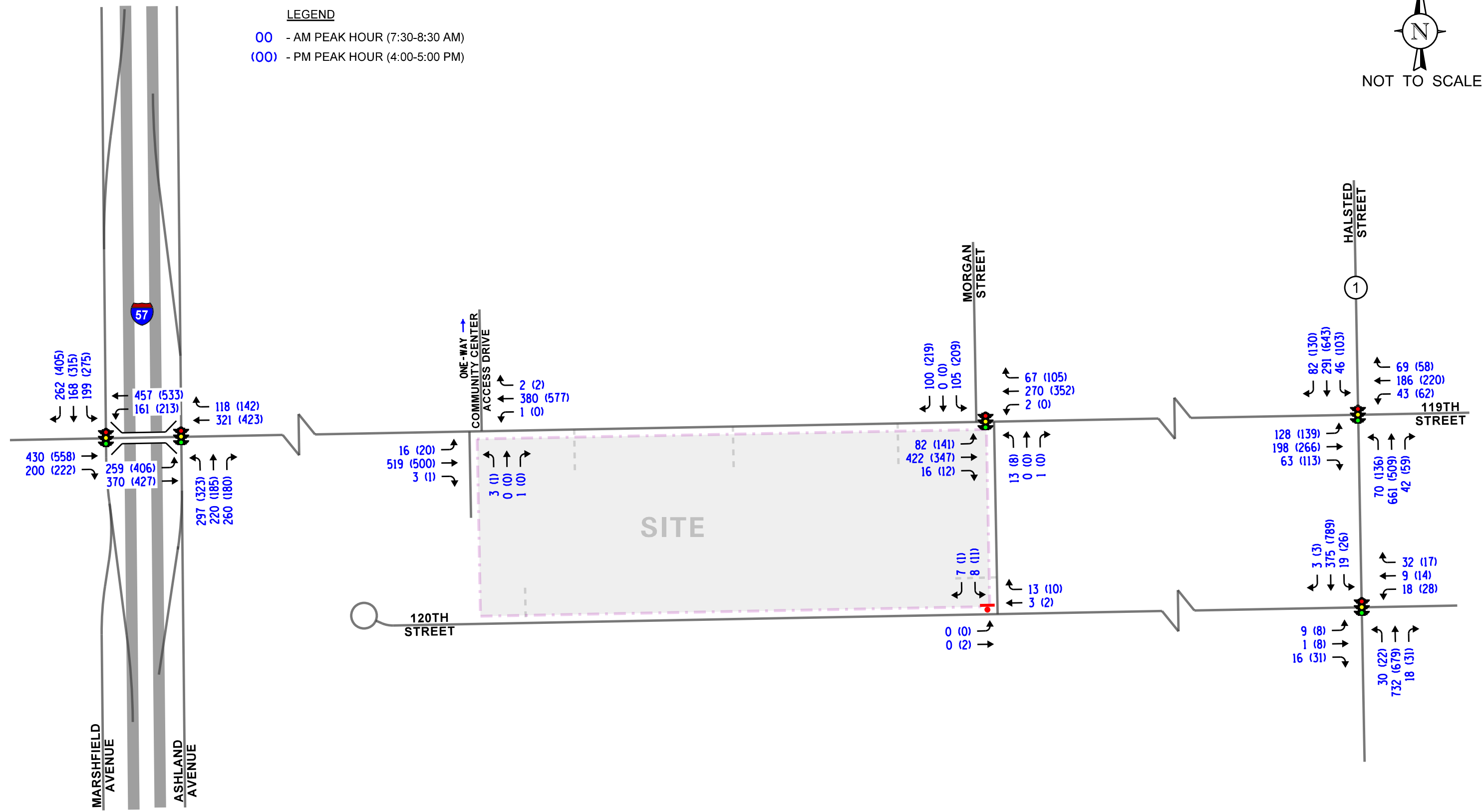
PROPOSED INDUSTRIAL DEVELOPMENT  
CHICAGO, ILLINOIS

SITE-GENERATED TRAFFIC VOLUMES - TRUCKS



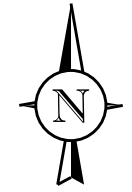
NOT TO SCALE

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



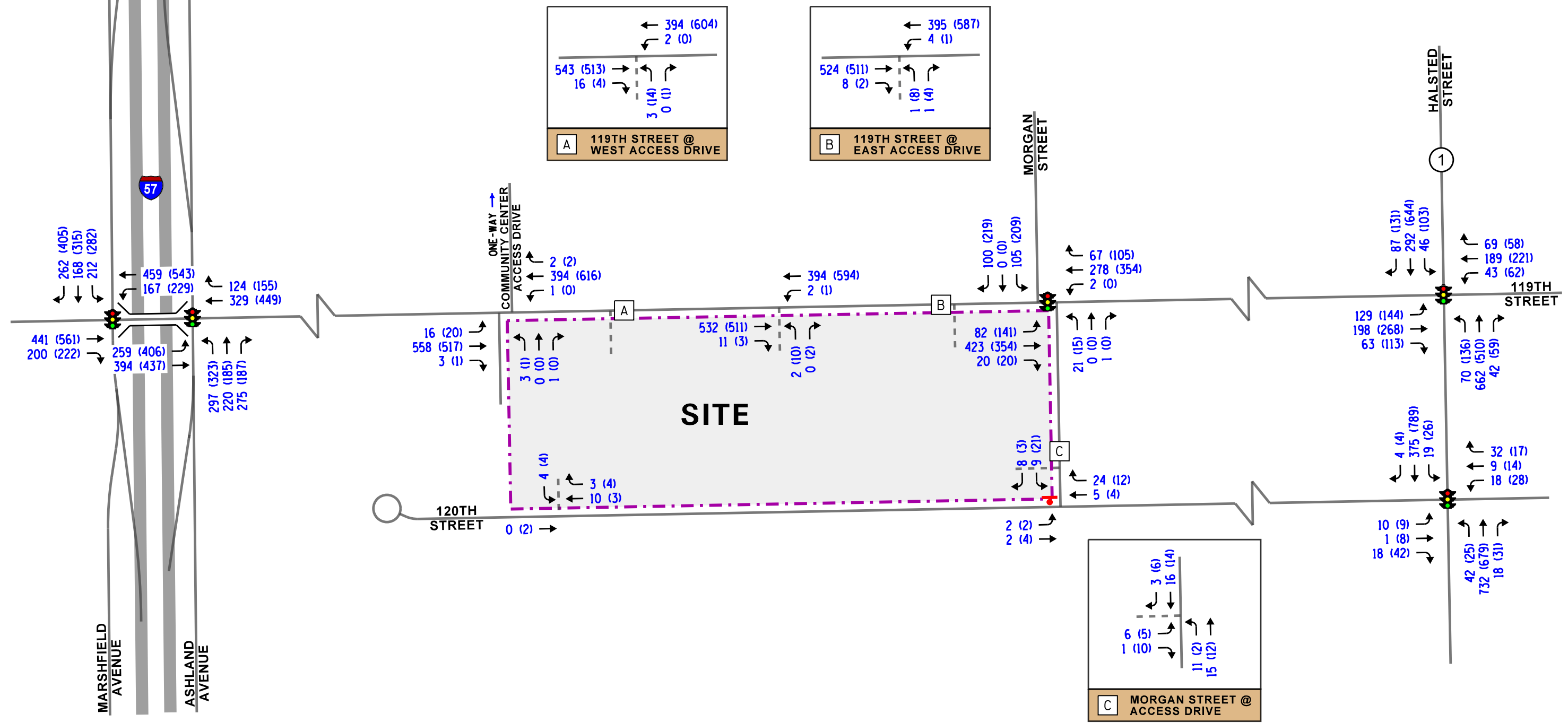
PROPOSED INDUSTRIAL DEVELOPMENT  
 CHICAGO, ILLINOIS

YEAR 2029 NO-BUILD TRAFFIC VOLUMES



NOT TO SCALE

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



PROPOSED INDUSTRIAL DEVELOPMENT  
CHICAGO, ILLINOIS

YEAR 2029 TOTAL TRAFFIC VOLUMES

## 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 street system and access drives are projected to operate and whether any street improvements or modifications are required.

### Traffic Analyses

Intersection analyses were performed for the weekday morning and weekday evening peak hours for the existing and Year 2029 total projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM), 6<sup>th</sup> Edition* and analyzed using Synchro/SimTraffic 11 software. The analysis for the signalized intersections were conducted utilizing actual cycle lengths, phasings, and offsets.

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.

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the existing and Year 2029 total projected conditions are presented in **Tables 3** through **5**. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix. Additional tables summarizing the existing and projected volume to capacity (v/c) ratios and 95<sup>th</sup> percentile queues are included in the appendix.



Table 3

CAPACITY ANALYSIS RESULTS – 119<sup>TH</sup> STREET WITH MARSHFIELD AVENUE

	Peak Hour	Eastbound		Westbound		Southbound			Overall
		T	R	T/L		L	T	R	
Existing Conditions	Weekday Morning Peak Hour	D 49.8	A 7.6	A 1.3		F 89.3	E 73.4	D 37.5	C 33.1
		D – 36.4		E – 61.0					
Existing Conditions	Weekday Evening Peak Hour	E 55.7	B 14.7	A 1.5		F 86.5	E 76.7	D 47.2	D 40.2
		D – 44.0		E – 66.1					
Year 2029 Total Projected Conditions	Weekday Morning Peak Hour	D 51.5	A 7.8	A 1.3		F 89.9	E 72.6	D 38.2	C 33.8
		D – 37.9		E – 61.4					
Year 2029 Total Projected Conditions	Weekday Evening Peak Hour	E 57.2	B 16.2	A 1.6		F 90.1	E 77.6	D 49.5	D 41.1
		D – 45.6		E – 68.1					

Letter denotes Level of Service  
Delay is measured in seconds.

L – Left-Turns    R – Right-Turns  
T – Through

Table 4

CAPACITY ANALYSIS RESULTS – 119<sup>TH</sup> STREET WITH ASHLAND AVENUE

	Peak Hour	Eastbound		Westbound		Northbound			Overall
		L	T	T	R	L	T	R	
Existing Conditions	Weekday Morning Peak Hour	A 2.2	A 0.7	E 64.6	A 4.9	F 93.2	E 76.9	B 12.4	D 36.8
		A – 1.3		D – 48.5		E – 58.9			
Existing Conditions	Weekday Evening Peak Hour	A 5.5	A 1.5	E 68.6	A 9.3	F 109.1	F 88.3	B 13.3	D 40.3
		A – 3.4		D – 53.7		E – 73.8			
Year 2029 Total Projected Conditions	Weekday Morning Peak Hour	A 2.3	A 0.8	E 65.0	A 6.3	F 97.0	E 78.9	B 12.4	D 37.0
		A – 1.4		D – 48.8		E – 59.7			
Year 2029 Total Projected Conditions	Weekday Evening Peak Hour	A 5.5	A 1.6	E 71.6	B 13.0	F 108.9	F 89.3	B 13.4	D 41.2
		A – 3.5		E – 56.6		E – 73.6			

Letter denotes Level of Service  
Delay is measured in seconds.

L – Left-Turns    R – Right-Turns  
T – Through

Table 5

CAPACITY ANALYSIS RESULTS – 119<sup>TH</sup> STREET WITH MORGAN STREET

	Peak Hour	Eastbound		Westbound		Northbound		Southbound		Overall
		L/T/R		L/T/R		L/T/R		L/T/R		
Existing Conditions	Weekday Morning Peak Hour	B 11.1		A 7.1		A 0.4		C 28.2		B 13.0
	Weekday Evening Peak Hour	C 26.5		A 9.5		D 36.4		F 100.5		D 44.1
Year 2029 Total Projected Conditions	Weekday Morning Peak Hour	B 14.0		A 9.2		A 0.8		C 28.2		B 14.9
	Weekday Evening Peak Hour	D 49.0		B 12.2		D 37.7		F 100.5		D 52.5
Letter denotes Level of Service Delay is measured in seconds.				L – Left-Turns T – Through		R – Right-Turns				

Table 6

CAPACITY ANALYSIS RESULTS – 119<sup>TH</sup> STREET WITH HALSTED STREET

	Peak Hour	Eastbound		Westbound		Northbound		Southbound		Overall
		L	T/R	L	T/R	L	T/R	L	T/R	
Existing Conditions	Weekday Morning Peak Hour	B 16.5	C 21.8	B 12.1	C 22.3	B 16.6	C 29.0	B 16.5	C 23.1	C 23.9
	Weekday Evening Peak Hour	C – 20.1		C – 20.8		C – 27.9		C – 22.4		
Year 2029 Total Projected Conditions	Weekday Morning Peak Hour	B 19.4	C 25.6	B 12.2	C 22.9	B 16.8	C 29.5	B 16.6	C 23.3	C 24.9
	Weekday Evening Peak Hour	B 16.1	C 25.1	B 13.0	C 24.3	D 36.7	C 28.0	B 18.9	D 40.7	
Letter denotes Level of Service Delay is measured in seconds.				L – Left-Turns T – Through		R – Right-Turns				

Table 7

CAPACITY ANALYSIS RESULTS – 120<sup>TH</sup> STREET WITH HALSTED STREET

	Peak Hour	Eastbound	Westbound	Northbound		Southbound		Overall
		L/T/R	L/T/R	L	T/R	L	T/R	
Existing Conditions	Weekday Morning Peak Hour	A 9.2	A 9.0	B 12.7	B 17.6	B 14.2	B 13.7	B 15.7
				B – 17.4		B – 13.8		
Existing Conditions	Weekday Evening Peak Hour	A 8.1	B 11.8	B 13.5	B 15.6	B 13.3	B 16.6	B 15.7
				B – 15.6		B – 16.5		
Year 2029 Total Projected Conditions	Weekday Morning Peak Hour	A 9.1	A 9.0	B 13.0	B 17.3	B 13.9	B 13.6	B 15.4
				B – 17.0		B – 13.6		
Year 2029 Total Projected Conditions	Weekday Evening Peak Hour	A 7.5	B 11.8	B 14.3	B 15.9	B 13.5	B 16.9	B 15.8
				B – 15.8		B – 16.8		
Letter denotes Level of Service Delay is measured in seconds.			L – Left-Turns T – Through		R – Right-Turns			

Table 8

CAPACITY ANALYSIS RESULTS – UNSIGNALIZED – YEAR 2022 BASE CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
<b>119<sup>th</sup> Street with MIFAB and Community Center Access Drives</b>				
• Eastbound Left Turn	A	8.2	A	9.0
• Westbound Left Turn	A	8.5	--	--
• Northbound Approach	C	16.7	D	25.8
<b>120<sup>th</sup> Street with Morgan Street</b>				
• Eastbound Left Turn	--	--	--	--
• Southbound Approach	A	8.5	A	8.7
LOS = Level of Service Delay is measured in seconds.				

Table 9  
CAPACITY ANALYSIS RESULTS – UNSIGNALIZED – YEAR 2029 PROJECTED CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
<b>119<sup>th</sup> Street with MIFAB and Community Center Access Drives</b>				
• Eastbound Left Turn	A	8.3	A	9.2
• Westbound Left Turn	A	8.7	--	--
• Northbound Approach	C	18.1	D	28.7
<b>119<sup>th</sup> Street with the West Site Access Drive</b>				
• Westbound Left Turn	A	8.6	--	--
• Northbound Approach	C	18.4	C	22.5
<b>119<sup>th</sup> Street with the Middle Site Access Drive</b>				
• Westbound Left Turn	A	8.6	A	8.5
• Northbound Approach	C	18.1	C	21.0
<b>119<sup>th</sup> Street with the East Site Access Drive</b>				
• Westbound Left Turn	A	8.5	A	8.5
• Northbound Approach	B	14.9	C	19.0
<b>120<sup>th</sup> Street with Morgan Street</b>				
• Eastbound Left Turn	A	8.2	A	8.2
• Southbound Approach	A	8.7	A	8.9
<b>120<sup>th</sup> Street with the Site Access Drive</b>				
• Southbound Approach	A	9.5	A	9.5
<b>Morgan Street with the Site Access Drive</b>				
• Eastbound Approach	A	8.7	A	8.9
• Northbound Left Turn	A	7.3	A	7.2
LOS = Level of Service Delay is measured in seconds.				

## Discussion and Recommendations

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

### *119<sup>th</sup> Street with Marshfield Avenue and Ashland Avenue*

Marshfield Avenue and Ashland Avenue operate as one-way frontage roads for I-57. The signalized intersections of 119<sup>th</sup> Street with Marshfield Avenue and 119<sup>th</sup> Street with Ashland Avenue operate under one controller. The results of the capacity analysis indicate that overall, these intersections currently operate at LOS D or better during the weekday morning and weekday evening peak hours. While some movements operate at LOS E or F, this is result of the long cycle length (160 seconds) required for the abnormal intersection geometry and operations. Further, the westbound approach at Marshfield Avenue and the eastbound approach at Ashland Avenue operate at LOS A with minimal delays indicating that these intersections are well coordinated and vehicles typically only wait at one of these intersections.

Under Year 2029 total projected conditions, these intersections overall are projected to continue to operate at the same LOS during both peak hours with increases in delay of less than one second. The proposed development is projected to increase the volume of traffic traversing these intersections by only two to three percent. As such, these intersections have sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no street improvements or traffic signal modifications will be required.

### *119<sup>th</sup> Street with Morgan Street*

The results of the capacity analysis indicate that this intersection currently operates at LOS B during the weekday morning peak hour and LOS D during the weekday evening peak hour. The delay during the weekday evening peak hour is the result of the high volume of southbound vehicles and the split phase operations of the signal which is required due to the offset between the north and south legs.

Under Year 2029 total projected conditions, this intersection is projected to continue to operate at the same LOS during both peak hours. It should be noted that the proposed development is not projected to increase the volume of southbound vehicles at this intersection. The northbound approach, which will carry outbound trucks from the proposed development, is projected to continue to operate at LOS D. Given the split phase operations of this intersection, northbound trucks leaving the development and turning left on to 119<sup>th</sup> Street will not have opposing movements and will be able to turn efficiently. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no street improvements or traffic signal modifications will be required.

### *119<sup>th</sup> Street with Halsted Avenue*

The results of the capacity analysis indicate that this intersection currently operates at LOS C during the weekday morning and weekday evening peak hours. Further, all movements operate at LOS D or better during both peak hours.

Under Year 2029 total projected conditions, this intersection is projected to continue to operate at the same LOS during both peak hours with increases in delay of less than two seconds. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no street improvements or traffic signal modifications will be required.

### *120<sup>th</sup> Street with Halsted Avenue*

The results of the capacity analysis indicate that this intersection currently operates at LOS B during the weekday morning and weekday evening peak hours. Further, all movements operate at LOS B or better during both peak hours.

Under Year 2029 total projected conditions, this intersection is projected to continue to operate at the same LOS during both peak hours with increases in delay of less than one second. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no street improvements or traffic signal modifications will be required.

### *119<sup>th</sup> Street with the MIFAB and Community Center Access Drives*

The results of the capacity analysis indicate that the northbound approach at this intersection operates At LOS D or better during the weekday morning and weekday evening peak hours. Further, the eastbound and westbound left turn movements operate at LOS A during both peak hours.

Under Year 2029 total projected conditions, all critical movements are projected to continue to operate at the same LOS during both peak hours. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no street improvements or traffic control modifications will be required.

### *119<sup>th</sup> Street with the Proposed Site Access Drives*

As proposed, three full movement access drives will be provided on the south side of 119<sup>th</sup> Street located approximately 70, 900, and 1,700 feet west of Morgan Street. These access drives will provide one inbound lane and one outbound lane with outbound movements under stop sign control. These access drives will serve passenger vehicles only.

The results of the capacity analysis indicate that outbound movements from these access drives are projected to operate at LOS C or better during the weekday morning and weekday evening peak hours. Further, the westbound left-turn movements from 119<sup>th</sup> Street on to the access drives are projected to operate at LOS A during both peak hours. The following should be noted:

- Eastbound right-turn lanes and westbound left-turn lanes will not be warranted on 119<sup>th</sup> Street serving any of the proposed access drives.
- These access drives will carry only passenger vehicles which will be able to exit the site efficiently.
- The westbound left-turn movements are projected to operate with minimal delays and 95<sup>th</sup> percentile queues of only one to two vehicles indicating that these movements will have a limited impact on through traffic along 119<sup>th</sup> Street for the westbound.
- Eastbound queues from the signalized intersection of 119<sup>th</sup> Street with Morgan Street are projected to extend past the location of the east access drive. However, the access drive will operate acceptably and will not impact signal operations give the following:
  - It will not carry a significant amount of traffic.
  - Vehicles that are blocked from entering or exiting the site at this access drive by queues on 119<sup>th</sup> Street will be able to utilize one of the other two proposed access drives on 119<sup>th</sup> Street.
  - Eastbound queues on 119<sup>th</sup> Street at its intersection with Morgan Street currently clear the intersection with every green phase and are projected to continue to do so.
- The proposed access drives will have a limited impact on the 119<sup>th</sup> Street bike lane as they will carry a limited volume of traffic, will not carry trucks, and will be under stop sign control south of the bike lane.

As such, these access drives will be adequate in accommodating the traffic generated by the development.

#### *120<sup>th</sup> Street with Morgan Street*

The results of the capacity analysis indicate that the critical movements at this intersection operate at LOS A during the weekday morning and weekday evening peak hours.

Under Year 2029 total projected conditions, all critical movements are projected to continue to operate at the same LOS during both peak hours. As such, this intersection has sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no street improvements or traffic control modifications will be required.

### *120<sup>th</sup> Street with the Proposed Site Access Drive*

As proposed, a full movement access drive will be provided on the west side of Morgan Street located approximately 115 feet north of 120<sup>th</sup> Street. This access drive will provide one inbound lane and one outbound lane wide enough to accommodate truck turning movements. Outbound movements will be under stop sign control. This access drive will serve passenger vehicles and trucks.

The results of the capacity analysis indicate that outbound movements from this access drives are projected to operate at LOS A during the weekday morning and weekday evening peak hours. As such, this access drive will be adequate in accommodating the traffic generated by the development.

### *Morgan Street with the Proposed Site Access Drive*

As proposed, a full movement access drive will be provided on the west side of Morgan Street located approximately 115 feet north of 120<sup>th</sup> Street. This access drive will provide one inbound lane and one outbound lane wide enough to accommodate truck turning movements. Outbound movements will be under stop sign control. This access drive will serve passenger vehicles and trucks.

The results of the capacity analysis indicate that the inbound and outbound movements at this access drive are projected to operate at LOS A during the weekday morning and weekday evening peak hours. It should be noted that 95<sup>th</sup> percentile queues on Morgan Street from its intersection with 119<sup>th</sup> Street are not projected to extended to the location of this access drive. As such, this access drive will be adequate in accommodating the traffic generated by the development.



## 6. Conclusion

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

- As proposed, the site will be developed with an approximately 413,400 square-foot warehouse building.
- Access to the development is proposed to be provided as follows:
  - Three full movement access drives on the south side of 119<sup>th</sup> Street located approximately 300, 900, and 1,470 feet west of Morgan Street. These access drives will provide one inbound lane and one outbound lane with outbound movements under stop sign control. These access drives will serve passenger vehicles only.
  - A full movement access drive on the west side of Morgan Street located approximately 115 feet north of 120<sup>th</sup> Street. This access drive will provide one inbound lane and one outbound lane wide enough to accommodate truck turning movements. Outbound movements will be under stop sign control. This access drive will serve passenger vehicles and trucks.
  - A full movement access drive on the north side of 120<sup>th</sup> Street located approximately 1,670 feet west of Morgan Street. This access drive will provide one inbound lane and one outbound lane wide enough to accommodate truck turning movements. Outbound movements will be under stop sign control. This access drive will primarily serve trucks.
- Area intersections have sufficient reserve capacity to accommodate the traffic estimated to be generated by the proposed development and no street improvements or traffic control modifications are required.
- The proposed access system will be adequate in accommodating the traffic estimated to be generated by the development.
- All truck traffic will enter and exit the site from 120<sup>th</sup> Street or Morgan Street and will access the greater street system via the signalized intersections of 119<sup>th</sup> Street with Morgan Street and 120<sup>th</sup> Street with Halsted Street.

# Appendix

Traffic Count Summary Sheets  
Preliminary Site Plan  
ITE Trip Generation Worksheets  
Level of Service Criteria  
Capacity Analysis Summary Sheets  
Additional Capacity Analysis Tables

## Traffic Count Summary Sheets



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9575 W. Higgins Rd., Suite 400

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

Count Name: 119th Street and Marshfield  
Avenue TMC  
Site Code:  
Start Date: 03/28/2023  
Page No: 1

### Turning Movement Data

Start Time	119th Street Eastbound						119th Street Westbound						Marshfield Avenue Northbound						Marshfield 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	
6:00 AM	0	0	95	18	0	113	0	9	41	0	0	50	0	0	0	0	0	0	0	13	13	30	1	56	219
6:15 AM	0	0	104	20	0	124	0	28	33	0	1	61	0	0	0	0	0	0	0	19	15	36	0	70	255
6:30 AM	0	0	104	27	0	131	0	29	54	0	0	83	0	0	0	0	0	0	0	19	25	40	0	84	298
6:45 AM	0	0	72	42	0	114	0	32	76	0	0	108	0	0	0	0	0	0	0	31	25	50	2	106	328
Hourly Total	0	0	375	107	0	482	0	98	204	0	1	302	0	0	0	0	0	0	0	82	78	156	3	316	1100
7:00 AM	0	0	85	31	0	116	0	26	64	0	0	90	0	0	0	0	1	0	0	22	28	46	1	96	302
7:15 AM	0	0	68	49	0	117	0	25	85	0	0	110	0	0	0	0	0	0	0	26	22	55	0	103	330
7:30 AM	0	0	102	53	0	155	0	53	110	0	0	163	0	0	0	0	0	0	0	28	37	81	0	146	464
7:45 AM	0	0	105	43	0	148	0	35	106	0	0	141	0	0	0	0	2	0	0	49	40	64	1	153	442
Hourly Total	0	0	360	176	0	536	0	139	365	0	0	504	0	0	0	0	3	0	0	125	127	246	2	498	1538
8:00 AM	0	0	110	47	0	157	0	34	110	0	0	144	0	0	0	0	0	0	0	62	50	62	0	174	475
8:15 AM	0	0	100	51	0	151	0	34	118	0	0	152	0	0	0	0	3	0	0	54	36	47	0	137	440
8:30 AM	0	0	105	32	0	137	0	42	83	0	0	125	0	0	0	0	1	0	0	50	38	61	0	149	411
8:45 AM	0	0	92	43	0	135	0	28	92	0	0	120	0	0	0	0	0	0	0	46	45	55	0	146	401
Hourly Total	0	0	407	173	0	580	0	138	403	0	0	541	0	0	0	0	4	0	0	212	169	225	0	606	1727
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	0	115	50	0	165	0	39	111	0	1	150	0	0	0	0	2	0	0	35	63	92	0	190	505
3:15 PM	0	0	153	50	0	203	0	36	134	0	0	170	0	0	0	0	0	0	0	66	62	96	1	224	597
3:30 PM	0	0	173	46	0	219	0	37	122	0	0	159	0	0	0	0	2	0	0	48	86	90	0	224	602
3:45 PM	0	0	141	56	0	197	0	39	120	0	0	159	0	0	0	0	0	0	0	59	88	112	2	259	615
Hourly Total	0	0	582	202	0	784	0	151	487	0	1	638	0	0	0	0	4	0	0	208	299	390	3	897	2319
4:00 PM	0	0	107	52	0	159	0	56	139	0	0	195	0	0	0	0	1	0	0	76	83	107	3	266	620
4:15 PM	0	0	129	57	0	186	0	47	138	0	0	185	0	0	0	0	0	0	0	58	70	104	1	232	603
4:30 PM	0	0	134	60	0	194	0	62	120	0	0	182	0	0	0	0	4	0	0	63	78	90	2	231	607
4:45 PM	0	0	155	47	0	202	0	42	120	0	0	162	0	0	0	0	0	0	0	70	75	92	4	237	601
Hourly Total	0	0	525	216	0	741	0	207	517	0	0	724	0	0	0	0	5	0	0	267	306	393	10	966	2431
5:00 PM	0	0	142	52	0	194	0	45	130	0	0	175	0	0	0	0	3	0	0	73	78	101	1	252	621
5:15 PM	0	0	150	55	0	205	0	38	127	0	0	165	0	0	0	0	0	0	0	90	87	82	0	259	629
5:30 PM	0	0	119	53	0	172	0	36	127	0	1	163	0	0	0	0	3	0	0	60	117	84	3	261	596
5:45 PM	0	0	114	44	0	158	0	50	110	0	1	160	0	0	0	0	1	0	0	70	78	79	0	227	545
Hourly Total	0	0	525	204	0	729	0	169	494	0	2	663	0	0	0	0	7	0	0	293	360	346	4	999	2391
Grand Total	0	0	2774	1078	0	3852	0	902	2470	0	4	3372	0	0	0	0	23	0	0	1187	1339	1756	22	4282	11506
Approach %	0.0	0.0	72.0	28.0	-	-	0.0	26.7	73.3	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	27.7	31.3	41.0	-	-	-
Total %	0.0	0.0	24.1	9.4	-	33.5	0.0	7.8	21.5	0.0	-	29.3	0.0	0.0	0.0	0.0	-	0.0	0.0	10.3	11.6	15.3	-	37.2	-
Lights	0	0	2670	1004	-	3674	0	877	2337	0	-	3214	0	0	0	0	-	0	0	1121	1311	1712	-	4144	11032

% Lights	-	-	96.3	93.1	-	95.4	-	97.2	94.6	-	-	95.3	-	-	-	-	-	-	-	94.4	97.9	97.5	-	96.8	95.9
Buses	0	0	46	4	-	50	0	5	44	0	-	49	0	0	0	0	-	0	0	57	12	11	-	80	179
% Buses	-	-	1.7	0.4	-	1.3	-	0.6	1.8	-	-	1.5	-	-	-	-	-	-	-	4.8	0.9	0.6	-	1.9	1.6
Single-Unit Trucks	0	0	29	9	-	38	0	9	33	0	-	42	0	0	0	0	-	0	0	8	12	16	-	36	116
% Single-Unit Trucks	-	-	1.0	0.8	-	1.0	-	1.0	1.3	-	-	1.2	-	-	-	-	-	-	-	0.7	0.9	0.9	-	0.8	1.0
Articulated Trucks	0	0	29	61	-	90	0	11	56	0	-	67	0	0	0	0	-	0	0	1	4	17	-	22	179
% Articulated Trucks	-	-	1.0	5.7	-	2.3	-	1.2	2.3	-	-	2.0	-	-	-	-	-	-	-	0.1	0.3	1.0	-	0.5	1.6
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
Pedestrians	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	23	-	-	-	-	-	22	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: 119th Street and Marshfield Avenue TMC  
Site Code:  
Start Date: 03/28/2023  
Page No: 3

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

Start Time	119th Street Eastbound						119th Street Westbound						Marshfield Avenue Northbound						Marshfield 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	102	53	0	155	0	53	110	0	0	163	0	0	0	0	0	0	0	28	37	81	0	146	464
7:45 AM	0	0	105	43	0	148	0	35	106	0	0	141	0	0	0	0	2	0	0	49	40	64	1	153	442
8:00 AM	0	0	110	47	0	157	0	34	110	0	0	144	0	0	0	0	0	0	0	62	50	62	0	174	475
8:15 AM	0	0	100	51	0	151	0	34	118	0	0	152	0	0	0	0	3	0	0	54	36	47	0	137	440
Total	0	0	417	194	0	611	0	156	444	0	0	600	0	0	0	0	5	0	0	193	163	254	1	610	1821
Approach %	0.0	0.0	68.2	31.8	-	-	0.0	26.0	74.0	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	31.6	26.7	41.6	-	-	-
Total %	0.0	0.0	22.9	10.7	-	33.6	0.0	8.6	24.4	0.0	-	32.9	0.0	0.0	0.0	0.0	-	0.0	0.0	10.6	9.0	13.9	-	33.5	-
PHF	0.000	0.000	0.948	0.915	-	0.973	0.000	0.736	0.941	0.000	-	0.920	0.000	0.000	0.000	0.000	-	0.000	0.000	0.778	0.815	0.784	-	0.876	0.958
Lights	0	0	398	174	-	572	0	146	402	0	-	548	0	0	0	0	-	0	0	180	158	244	-	582	1702
% Lights	-	-	95.4	89.7	-	93.6	-	93.6	90.5	-	-	91.3	-	-	-	-	-	-	-	93.3	96.9	96.1	-	95.4	93.5
Buses	0	0	5	1	-	6	0	1	7	0	-	8	0	0	0	0	-	0	0	11	4	2	-	17	31
% Buses	-	-	1.2	0.5	-	1.0	-	0.6	1.6	-	-	1.3	-	-	-	-	-	-	-	5.7	2.5	0.8	-	2.8	1.7
Single-Unit Trucks	0	0	7	1	-	8	0	3	13	0	-	16	0	0	0	0	-	0	0	1	1	3	-	5	29
% Single-Unit Trucks	-	-	1.7	0.5	-	1.3	-	1.9	2.9	-	-	2.7	-	-	-	-	-	-	-	0.5	0.6	1.2	-	0.8	1.6
Articulated Trucks	0	0	7	18	-	25	0	6	22	0	-	28	0	0	0	0	-	0	0	1	0	5	-	6	59
% Articulated Trucks	-	-	1.7	9.3	-	4.1	-	3.8	5.0	-	-	4.7	-	-	-	-	-	-	-	0.5	0.0	2.0	-	1.0	3.2
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
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: 119th Street and Marshfield Avenue TMC  
Site Code:  
Start Date: 03/28/2023  
Page No: 4

### Turning Movement Peak Hour Data (4:00 PM)

Start Time	119th Street Eastbound						119th Street Westbound						Marshfield Avenue Northbound						Marshfield 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	
4:00 PM	0	0	107	52	0	159	0	56	139	0	0	195	0	0	0	0	1	0	0	76	83	107	3	266	620
4:15 PM	0	0	129	57	0	186	0	47	138	0	0	185	0	0	0	0	0	0	0	58	70	104	1	232	603
4:30 PM	0	0	134	60	0	194	0	62	120	0	0	182	0	0	0	0	4	0	0	63	78	90	2	231	607
4:45 PM	0	0	155	47	0	202	0	42	120	0	0	162	0	0	0	0	0	0	0	70	75	92	4	237	601
Total	0	0	525	216	0	741	0	207	517	0	0	724	0	0	0	0	5	0	0	267	306	393	10	966	2431
Approach %	0.0	0.0	70.9	29.1	-	-	0.0	28.6	71.4	0.0	-	-	0.0	0.0	0.0	0.0	-	-	0.0	27.6	31.7	40.7	-	-	-
Total %	0.0	0.0	21.6	8.9	-	30.5	0.0	8.5	21.3	0.0	-	29.8	0.0	0.0	0.0	0.0	-	0.0	0.0	11.0	12.6	16.2	-	39.7	-
PHF	0.000	0.000	0.847	0.900	-	0.917	0.000	0.835	0.930	0.000	-	0.928	0.000	0.000	0.000	0.000	-	0.000	0.000	0.878	0.922	0.918	-	0.908	0.980
Lights	0	0	516	206	-	722	0	204	500	0	-	704	0	0	0	0	-	0	0	258	302	387	-	947	2373
% Lights	-	-	98.3	95.4	-	97.4	-	98.6	96.7	-	-	97.2	-	-	-	-	-	-	-	96.6	98.7	98.5	-	98.0	97.6
Buses	0	0	5	0	-	5	0	1	10	0	-	11	0	0	0	0	-	0	0	9	0	2	-	11	27
% Buses	-	-	1.0	0.0	-	0.7	-	0.5	1.9	-	-	1.5	-	-	-	-	-	-	-	3.4	0.0	0.5	-	1.1	1.1
Single-Unit Trucks	0	0	2	2	-	4	0	1	4	0	-	5	0	0	0	0	-	0	0	0	4	3	-	7	16
% Single-Unit Trucks	-	-	0.4	0.9	-	0.5	-	0.5	0.8	-	-	0.7	-	-	-	-	-	-	-	0.0	1.3	0.8	-	0.7	0.7
Articulated Trucks	0	0	2	8	-	10	0	1	3	0	-	4	0	0	0	0	-	0	0	0	0	1	-	1	15
% Articulated Trucks	-	-	0.4	3.7	-	1.3	-	0.5	0.6	-	-	0.6	-	-	-	-	-	-	-	0.0	0.0	0.3	-	0.1	0.6
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
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	10	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: 119th Street with Halsted Street  
TMC  
Site Code:  
Start Date: 03/30/2023  
Page No: 1

### Turning Movement Data

Start Time	119th Street Eastbound						119th Street Westbound						Halsted Street Northbound						Halsted Street 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	
6:00 AM	0	7	15	6	2	28	0	5	16	2	2	23	0	5	52	2	3	59	0	2	20	5	0	27	137
6:15 AM	0	5	17	7	0	29	0	4	21	4	1	29	0	9	58	3	4	70	0	5	31	8	1	44	172
6:30 AM	0	9	30	5	1	44	0	10	28	9	0	47	0	2	85	3	4	90	0	6	29	11	0	46	227
6:45 AM	0	14	21	8	3	43	0	9	31	10	0	50	0	12	126	10	0	148	0	5	34	6	2	45	286
Hourly Total	0	35	83	26	6	144	0	28	96	25	3	149	0	28	321	18	11	367	0	18	114	30	3	162	822
7:00 AM	0	17	26	5	2	48	0	9	28	14	1	51	0	7	146	5	0	158	0	7	44	6	4	57	314
7:15 AM	0	12	29	11	0	52	0	5	39	11	0	55	0	15	152	9	0	176	0	7	54	14	2	75	358
7:30 AM	0	28	52	17	0	97	0	9	58	15	2	82	0	23	163	6	1	192	0	11	54	21	3	86	457
7:45 AM	0	37	52	16	0	105	0	12	42	18	1	72	0	8	148	7	0	163	0	10	79	20	1	109	449
Hourly Total	0	94	159	49	2	302	0	35	167	58	4	260	0	53	609	27	1	689	0	35	231	61	10	327	1578
8:00 AM	0	30	43	15	1	88	0	10	41	16	1	67	0	16	153	10	2	179	0	9	79	15	3	103	437
8:15 AM	0	29	45	13	1	87	0	11	40	18	1	69	2	19	150	18	0	189	0	15	71	24	1	110	455
8:30 AM	0	31	46	23	1	100	0	10	43	19	1	72	0	19	148	14	0	181	0	11	75	15	2	101	454
8:45 AM	0	33	49	16	0	98	0	15	44	14	0	73	0	27	122	11	1	160	0	13	74	22	1	109	440
Hourly Total	0	123	183	67	3	373	0	46	168	67	3	281	2	81	573	53	3	709	0	48	299	76	7	423	1786
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	30	48	20	4	98	0	13	37	20	3	70	0	30	119	16	2	165	0	28	110	32	10	170	503
3:15 PM	0	29	55	8	0	92	0	14	57	20	3	91	0	32	108	12	3	152	0	27	119	33	0	179	514
3:30 PM	0	28	63	17	1	108	0	12	33	15	2	60	0	26	109	16	3	151	0	30	139	31	1	200	519
3:45 PM	0	37	61	17	1	115	0	18	58	24	1	100	0	28	102	13	2	143	0	30	148	41	1	219	577
Hourly Total	0	124	227	62	6	413	0	57	185	79	9	321	0	116	438	57	10	611	0	115	516	137	12	768	2113
4:00 PM	0	41	58	27	5	126	0	18	57	16	0	91	0	26	136	15	4	177	0	26	170	35	3	231	625
4:15 PM	0	30	60	17	2	107	0	19	44	13	4	76	0	34	102	17	6	153	0	26	155	36	1	217	553
4:30 PM	0	42	74	36	3	152	0	12	60	11	4	83	0	34	121	9	5	164	0	26	153	29	4	208	607
4:45 PM	0	22	66	30	6	118	0	11	53	16	3	80	0	38	135	16	3	189	0	22	146	26	0	194	581
Hourly Total	0	135	258	110	16	503	0	60	214	56	11	330	0	132	494	57	18	683	0	100	624	126	8	850	2366
5:00 PM	0	33	67	16	2	116	0	16	45	18	0	79	0	32	102	12	2	146	1	20	152	33	2	206	547
5:15 PM	0	31	59	23	2	113	0	15	45	19	3	79	0	27	111	17	3	155	1	27	140	38	2	206	553
5:30 PM	0	30	54	22	4	106	0	12	44	17	4	73	0	32	109	10	4	151	0	15	151	33	5	199	529
5:45 PM	0	25	77	15	5	117	0	16	50	18	1	84	0	36	114	10	3	160	0	25	137	32	4	194	555
Hourly Total	0	119	257	76	13	452	0	59	184	72	8	315	0	127	436	49	12	612	2	87	580	136	13	805	2184
Grand Total	0	630	1167	390	46	2187	0	285	1014	357	38	1656	2	537	2871	261	55	3671	2	403	2364	566	53	3335	10849
Approach %	0.0	28.8	53.4	17.8	-	-	0.0	17.2	61.2	21.6	-	-	0.1	14.6	78.2	7.1	-	-	0.1	12.1	70.9	17.0	-	-	-
Total %	0.0	5.8	10.8	3.6	-	20.2	0.0	2.6	9.3	3.3	-	15.3	0.0	4.9	26.5	2.4	-	33.8	0.0	3.7	21.8	5.2	-	30.7	-
Lights	0	619	1102	376	-	2097	0	277	966	347	-	1590	2	519	2729	258	-	3508	2	401	2257	532	-	3192	10387



% Lights	-	98.3	94.4	96.4	-	95.9	-	97.2	95.3	97.2	-	96.0	100.0	96.6	95.1	98.9	-	95.6	100.0	99.5	95.5	94.0	-	95.7	95.7
Buses	0	1	48	9	-	58	0	4	34	7	-	45	0	4	107	3	-	114	0	1	80	27	-	108	325
% Buses	-	0.2	4.1	2.3	-	2.7	-	1.4	3.4	2.0	-	2.7	0.0	0.7	3.7	1.1	-	3.1	0.0	0.2	3.4	4.8	-	3.2	3.0
Single-Unit Trucks	0	7	15	1	-	23	0	3	12	3	-	18	0	7	28	0	-	35	0	1	22	3	-	26	102
% Single-Unit Trucks	-	1.1	1.3	0.3	-	1.1	-	1.1	1.2	0.8	-	1.1	0.0	1.3	1.0	0.0	-	1.0	0.0	0.2	0.9	0.5	-	0.8	0.9
Articulated Trucks	0	3	2	4	-	9	0	0	2	0	-	2	0	7	7	0	-	14	0	0	5	4	-	9	34
% Articulated Trucks	-	0.5	0.2	1.0	-	0.4	-	0.0	0.2	0.0	-	0.1	0.0	1.3	0.2	0.0	-	0.4	0.0	0.0	0.2	0.7	-	0.3	0.3
Bicycles on Road	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.4	0.0	0.0	-	0.1	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	46	-	-	-	-	-	38	-	-	-	-	-	55	-	-	-	-	-	53	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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TMC  
Site Code:  
Start Date: 03/30/2023  
Page No: 3

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

Start Time	119th Street Eastbound						119th Street Westbound						Halsted Street Northbound						Halsted Street 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	28	52	17	0	97	0	9	58	15	2	82	0	23	163	6	1	192	0	11	54	21	3	86	457
7:45 AM	0	37	52	16	0	105	0	12	42	18	1	72	0	8	148	7	0	163	0	10	79	20	1	109	449
8:00 AM	0	30	43	15	1	88	0	10	41	16	1	67	0	16	153	10	2	179	0	9	79	15	3	103	437
8:15 AM	0	29	45	13	1	87	0	11	40	18	1	69	2	19	150	18	0	189	0	15	71	24	1	110	455
Total	0	124	192	61	2	377	0	42	181	67	5	290	2	66	614	41	3	723	0	45	283	80	8	408	1798
Approach %	0.0	32.9	50.9	16.2	-	-	0.0	14.5	62.4	23.1	-	-	0.3	9.1	84.9	5.7	-	-	0.0	11.0	69.4	19.6	-	-	-
Total %	0.0	6.9	10.7	3.4	-	21.0	0.0	2.3	10.1	3.7	-	16.1	0.1	3.7	34.1	2.3	-	40.2	0.0	2.5	15.7	4.4	-	22.7	-
PHF	0.000	0.838	0.923	0.897	-	0.898	0.000	0.875	0.780	0.931	-	0.884	0.250	0.717	0.942	0.569	-	0.941	0.000	0.750	0.896	0.833	-	0.927	0.984
Lights	0	123	176	55	-	354	0	42	174	65	-	281	2	62	583	41	-	688	0	44	264	75	-	383	1706
% Lights	-	99.2	91.7	90.2	-	93.9	-	100.0	96.1	97.0	-	96.9	100.0	93.9	95.0	100.0	-	95.2	-	97.8	93.3	93.8	-	93.9	94.9
Buses	0	0	12	3	-	15	0	0	6	2	-	8	0	1	23	0	-	24	0	1	13	5	-	19	66
% Buses	-	0.0	6.3	4.9	-	4.0	-	0.0	3.3	3.0	-	2.8	0.0	1.5	3.7	0.0	-	3.3	-	2.2	4.6	6.3	-	4.7	3.7
Single-Unit Trucks	0	1	4	1	-	6	0	0	1	0	-	1	0	2	7	0	-	9	0	0	5	0	-	5	21
% Single-Unit Trucks	-	0.8	2.1	1.6	-	1.6	-	0.0	0.6	0.0	-	0.3	0.0	3.0	1.1	0.0	-	1.2	-	0.0	1.8	0.0	-	1.2	1.2
Articulated Trucks	0	0	0	2	-	2	0	0	0	0	-	0	0	1	1	0	-	2	0	0	1	0	-	1	5
% Articulated Trucks	-	0.0	0.0	3.3	-	0.5	-	0.0	0.0	0.0	-	0.0	0.0	1.5	0.2	0.0	-	0.3	-	0.0	0.4	0.0	-	0.2	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
Pedestrians	-	-	-	-	2	-	-	-	-	-	5	-	-	-	-	-	3	-	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: 119th Street with Halsted Street  
TMC  
Site Code:  
Start Date: 03/30/2023  
Page No: 4

### Turning Movement Peak Hour Data (4:00 PM)

Start Time	119th Street Eastbound						119th Street Westbound						Halsted Street Northbound						Halsted Street 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	
4:00 PM	0	41	58	27	5	126	0	18	57	16	0	91	0	26	136	15	4	177	0	26	170	35	3	231	625
4:15 PM	0	30	60	17	2	107	0	19	44	13	4	76	0	34	102	17	6	153	0	26	155	36	1	217	553
4:30 PM	0	42	74	36	3	152	0	12	60	11	4	83	0	34	121	9	5	164	0	26	153	29	4	208	607
4:45 PM	0	22	66	30	6	118	0	11	53	16	3	80	0	38	135	16	3	189	0	22	146	26	0	194	581
Total	0	135	258	110	16	503	0	60	214	56	11	330	0	132	494	57	18	683	0	100	624	126	8	850	2366
Approach %	0.0	26.8	51.3	21.9	-	-	0.0	18.2	64.8	17.0	-	-	0.0	19.3	72.3	8.3	-	-	0.0	11.8	73.4	14.8	-	-	-
Total %	0.0	5.7	10.9	4.6	-	21.3	0.0	2.5	9.0	2.4	-	13.9	0.0	5.6	20.9	2.4	-	28.9	0.0	4.2	26.4	5.3	-	35.9	-
PHF	0.000	0.804	0.872	0.764	-	0.827	0.000	0.789	0.892	0.875	-	0.907	0.000	0.868	0.908	0.838	-	0.903	0.000	0.962	0.918	0.875	-	0.920	0.946
Lights	0	133	249	107	-	489	0	60	204	56	-	320	0	131	473	56	-	660	0	100	601	119	-	820	2289
% Lights	-	98.5	96.5	97.3	-	97.2	-	100.0	95.3	100.0	-	97.0	-	99.2	95.7	98.2	-	96.6	-	100.0	96.3	94.4	-	96.5	96.7
Buses	0	0	7	3	-	10	0	0	7	0	-	7	0	0	17	1	-	18	0	0	20	5	-	25	60
% Buses	-	0.0	2.7	2.7	-	2.0	-	0.0	3.3	0.0	-	2.1	-	0.0	3.4	1.8	-	2.6	-	0.0	3.2	4.0	-	2.9	2.5
Single-Unit Trucks	0	1	1	0	-	2	0	0	2	0	-	2	0	0	4	0	-	4	0	0	3	1	-	4	12
% Single-Unit Trucks	-	0.7	0.4	0.0	-	0.4	-	0.0	0.9	0.0	-	0.6	-	0.0	0.8	0.0	-	0.6	-	0.0	0.5	0.8	-	0.5	0.5
Articulated Trucks	0	1	1	0	-	2	0	0	1	0	-	1	0	1	0	0	-	1	0	0	0	1	-	1	5
% Articulated Trucks	-	0.7	0.4	0.0	-	0.4	-	0.0	0.5	0.0	-	0.3	-	0.8	0.0	0.0	-	0.1	-	0.0	0.0	0.8	-	0.1	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
Pedestrians	-	-	-	-	16	-	-	-	-	-	11	-	-	-	-	-	18	-	-	-	-	-	8	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: 119th Street with Morgan Street  
TMC  
Site Code:  
Start Date: 03/28/2023  
Page No: 1

### Turning Movement Data

Start Time	119th Street Eastbound				119th Street Westbound					Morgan Street Northbound					Int. Total
	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
6:00 AM	27	2	0	29	0	0	35	0	35	0	3	0	0	3	67
6:15 AM	32	0	0	32	0	0	42	0	42	0	1	0	0	1	75
6:30 AM	44	0	0	44	0	0	44	0	44	0	1	0	0	1	89
6:45 AM	57	1	0	58	0	0	56	0	56	0	2	0	0	2	116
Hourly Total	160	3	0	163	0	0	177	0	177	0	7	0	0	7	347
7:00 AM	53	0	0	53	0	0	65	0	65	0	1	0	0	1	119
7:15 AM	62	0	0	62	0	0	73	0	73	0	2	0	0	2	137
7:30 AM	104	3	0	107	0	0	94	0	94	0	7	1	0	8	209
7:45 AM	111	5	0	116	0	1	68	0	69	0	2	0	0	2	187
Hourly Total	330	8	0	338	0	1	300	0	301	0	12	1	0	13	652
8:00 AM	135	6	0	141	0	0	72	1	72	0	4	0	0	4	217
8:15 AM	113	2	0	115	0	1	95	0	96	0	0	0	0	0	211
8:30 AM	92	0	0	92	0	0	85	0	85	0	1	0	1	1	178
8:45 AM	91	5	0	96	0	0	67	1	67	0	1	0	0	1	164
Hourly Total	431	13	0	444	0	1	319	2	320	0	6	0	1	6	770
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	90	3	0	93	0	0	103	0	103	0	4	0	1	4	200
3:15 PM	127	3	0	130	0	0	96	0	96	0	7	0	0	7	233
3:30 PM	112	6	0	118	0	0	114	0	114	0	1	0	0	1	233
3:45 PM	108	2	3	110	0	0	113	0	113	0	5	0	4	5	228
Hourly Total	437	14	3	451	0	0	426	0	426	0	17	0	5	17	894
4:00 PM	131	6	0	137	0	0	130	0	130	0	2	0	0	2	269
4:15 PM	110	3	0	113	0	0	102	0	102	0	0	0	1	0	215
4:30 PM	111	1	0	112	0	0	92	0	92	0	5	0	0	5	209
4:45 PM	114	2	0	116	0	0	123	0	123	0	1	0	1	1	240
Hourly Total	466	12	0	478	0	0	447	0	447	0	8	0	2	8	933
5:00 PM	110	5	1	115	0	1	121	1	122	0	2	0	1	2	239
5:15 PM	120	4	0	124	0	0	97	0	97	0	3	0	0	3	224
5:30 PM	108	3	0	111	0	0	106	0	106	0	2	0	0	2	219
5:45 PM	116	3	0	119	0	0	125	0	125	0	2	0	0	2	246
Hourly Total	454	15	1	469	0	1	449	1	450	0	9	0	1	9	928
Grand Total	2278	65	4	2343	0	3	2118	3	2121	0	59	1	9	60	4524
Approach %	97.2	2.8	-	-	0.0	0.1	99.9	-	-	0.0	98.3	1.7	-	-	-
Total %	50.4	1.4	-	51.8	0.0	0.1	46.8	-	46.9	0.0	1.3	0.0	-	1.3	-
Lights	2201	63	-	2264	0	3	2042	-	2045	0	57	1	-	58	4367
% Lights	96.6	96.9	-	96.6	-	100.0	96.4	-	96.4	-	96.6	100.0	-	96.7	96.5

Buses	46	1	-	47	0	0	43	-	43	0	2	0	-	2	92
% Buses	2.0	1.5	-	2.0	-	0.0	2.0	-	2.0	-	3.4	0.0	-	3.3	2.0
Single-Unit Trucks	28	1	-	29	0	0	29	-	29	0	0	0	-	0	58
% Single-Unit Trucks	1.2	1.5	-	1.2	-	0.0	1.4	-	1.4	-	0.0	0.0	-	0.0	1.3
Articulated Trucks	3	0	-	3	0	0	4	-	4	0	0	0	-	0	7
% Articulated Trucks	0.1	0.0	-	0.1	-	0.0	0.2	-	0.2	-	0.0	0.0	-	0.0	0.2
Bicycles on Road	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	-	-	4	-	-	-	-	3	-	-	-	-	9	-	-
% Pedestrians	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-



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Count Name: 119th Street with Morgan Street  
TMC  
Site Code:  
Start Date: 03/28/2023  
Page No: 3

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

Start Time	119th Street Eastbound				119th Street Westbound				Morgan Street Northbound				Int. Total		
	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right		Peds	App. Total
7:30 AM	104	3	0	107	0	0	94	0	94	0	7	1	0	8	209
7:45 AM	111	5	0	116	0	1	68	0	69	0	2	0	0	2	187
8:00 AM	135	6	0	141	0	0	72	1	72	0	4	0	0	4	217
8:15 AM	113	2	0	115	0	1	95	0	96	0	0	0	0	0	211
<b>Total</b>	<b>463</b>	<b>16</b>	<b>0</b>	<b>479</b>	<b>0</b>	<b>2</b>	<b>329</b>	<b>1</b>	<b>331</b>	<b>0</b>	<b>13</b>	<b>1</b>	<b>0</b>	<b>14</b>	<b>824</b>
Approach %	96.7	3.3	-	-	0.0	0.6	99.4	-	-	0.0	92.9	7.1	-	-	-
Total %	56.2	1.9	-	58.1	0.0	0.2	39.9	-	40.2	0.0	1.6	0.1	-	1.7	-
PHF	0.857	0.667	-	0.849	0.000	0.500	0.866	-	0.862	0.000	0.464	0.250	-	0.438	0.949
Lights	447	16	-	463	0	2	312	-	314	0	13	1	-	14	791
% Lights	96.5	100.0	-	96.7	-	100.0	94.8	-	94.9	-	100.0	100.0	-	100.0	96.0
Buses	7	0	-	7	0	0	7	-	7	0	0	0	-	0	14
% Buses	1.5	0.0	-	1.5	-	0.0	2.1	-	2.1	-	0.0	0.0	-	0.0	1.7
Single-Unit Trucks	9	0	-	9	0	0	7	-	7	0	0	0	-	0	16
% Single-Unit Trucks	1.9	0.0	-	1.9	-	0.0	2.1	-	2.1	-	0.0	0.0	-	0.0	1.9
Articulated Trucks	0	0	-	0	0	0	3	-	3	0	0	0	-	0	3
% Articulated Trucks	0.0	0.0	-	0.0	-	0.0	0.9	-	0.9	-	0.0	0.0	-	0.0	0.4
Bicycles on Road	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	-	-	-	-	1	-	-	-	-	0	-	-
% Pedestrians	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-



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Count Name: 119th Street with Morgan Street  
TMC  
Site Code:  
Start Date: 03/28/2023  
Page No: 4

### Turning Movement Peak Hour Data (4:00 PM)

Start Time	119th Street Eastbound				119th Street Westbound					Morgan Street Northbound					Int. Total
	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
4:00 PM	131	6	0	137	0	0	130	0	130	0	2	0	0	2	269
4:15 PM	110	3	0	113	0	0	102	0	102	0	0	0	1	0	215
4:30 PM	111	1	0	112	0	0	92	0	92	0	5	0	0	5	209
4:45 PM	114	2	0	116	0	0	123	0	123	0	1	0	1	1	240
Total	466	12	0	478	0	0	447	0	447	0	8	0	2	8	933
Approach %	97.5	2.5	-	-	0.0	0.0	100.0	-	-	0.0	100.0	0.0	-	-	-
Total %	49.9	1.3	-	51.2	0.0	0.0	47.9	-	47.9	0.0	0.9	0.0	-	0.9	-
PHF	0.889	0.500	-	0.872	0.000	0.000	0.860	-	0.860	0.000	0.400	0.000	-	0.400	0.867
Lights	461	11	-	472	0	0	434	-	434	0	8	0	-	8	914
% Lights	98.9	91.7	-	98.7	-	-	97.1	-	97.1	-	100.0	-	-	100.0	98.0
Buses	3	0	-	3	0	0	8	-	8	0	0	0	-	0	11
% Buses	0.6	0.0	-	0.6	-	-	1.8	-	1.8	-	0.0	-	-	0.0	1.2
Single-Unit Trucks	2	1	-	3	0	0	5	-	5	0	0	0	-	0	8
% Single-Unit Trucks	0.4	8.3	-	0.6	-	-	1.1	-	1.1	-	0.0	-	-	0.0	0.9
Articulated Trucks	0	0	-	0	0	0	0	-	0	0	0	0	-	0	0
% Articulated Trucks	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
% Bicycles on Road	0.0	0.0	-	0.0	-	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0
Pedestrians	-	-	0	-	-	-	-	0	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Count Name: 119th Street with Salvation  
Army/MIFAB Access Drive TMC  
Site Code:  
Start Date: 03/28/2023  
Page No: 1

### Turning Movement Data

Start Time	119th Street Eastbound						119th Street Westbound					MIFAB Access Drive Northbound						Salvation Army Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
6:00 AM	0	0	32	0	0	32	0	0	42	0	42	0	0	0	0	0	0	0	0	0	0	0	0	74
6:15 AM	0	1	36	0	0	37	0	0	38	2	40	0	0	0	0	0	0	0	0	0	0	0	0	77
6:30 AM	0	1	50	0	0	51	0	0	49	1	50	0	0	0	0	0	0	0	0	0	1	0	1	102
6:45 AM	0	1	60	0	0	61	0	0	60	0	60	0	0	0	0	0	0	0	0	0	0	0	0	121
Hourly Total	0	3	178	0	0	181	0	0	189	3	192	0	0	0	0	0	0	0	0	0	1	0	1	374
7:00 AM	0	2	60	1	0	63	0	0	68	2	70	0	0	0	0	0	0	0	0	0	0	1	0	133
7:15 AM	0	1	61	0	0	62	0	0	63	0	63	0	0	0	0	0	0	0	0	0	0	1	0	125
7:30 AM	0	2	109	1	0	112	1	0	112	0	113	0	1	0	0	0	1	0	1	0	0	1	1	227
7:45 AM	1	4	116	0	0	121	0	0	69	0	69	0	0	0	0	0	0	0	1	0	0	1	1	191
Hourly Total	1	9	346	2	0	358	1	0	312	2	315	0	1	0	0	0	1	0	2	0	0	4	2	676
8:00 AM	0	5	141	2	0	148	0	0	75	0	75	0	1	0	1	0	2	0	1	0	0	1	1	226
8:15 AM	0	4	141	0	0	145	0	0	86	2	88	0	1	0	0	0	1	0	1	0	1	1	2	236
8:30 AM	0	1	93	0	0	94	0	0	76	7	83	0	0	0	0	0	0	0	2	0	0	0	2	179
8:45 AM	0	5	109	0	0	114	0	0	70	1	71	0	0	0	0	0	0	0	0	0	0	1	0	185
Hourly Total	0	15	484	2	0	501	0	0	307	10	317	0	2	0	1	0	3	0	4	0	1	3	5	826
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	2	107	0	0	109	0	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	209
3:15 PM	0	2	130	0	0	132	0	0	112	0	112	0	0	0	0	0	0	0	0	0	0	0	0	244
3:30 PM	0	4	123	0	0	127	0	0	104	1	105	0	1	0	0	0	1	0	0	0	0	0	0	233
3:45 PM	0	1	106	0	0	107	0	0	119	1	120	0	0	0	0	0	0	0	0	0	0	0	0	227
Hourly Total	0	9	466	0	0	475	0	0	435	2	437	0	1	0	0	0	1	0	0	0	0	0	0	913
4:00 PM	0	5	138	0	0	143	0	0	140	0	140	0	1	0	0	1	1	0	0	0	0	0	0	284
4:15 PM	0	1	121	0	0	122	0	0	104	1	105	0	0	0	0	0	0	0	0	0	0	0	0	227
4:30 PM	0	6	105	0	0	111	0	0	85	0	85	0	0	0	0	0	0	0	1	0	0	0	1	197
4:45 PM	0	8	126	1	0	135	0	0	117	1	118	0	0	0	0	1	0	0	1	0	0	1	1	254
Hourly Total	0	20	490	1	0	511	0	0	446	2	448	0	1	0	0	2	1	0	2	0	0	1	2	962
5:00 PM	0	3	120	0	0	123	0	0	119	1	120	0	1	0	0	1	1	0	0	0	1	0	1	245
5:15 PM	0	5	118	0	0	123	0	0	100	0	100	0	0	0	0	0	0	0	0	0	0	0	0	223
5:30 PM	0	5	113	0	0	118	0	0	95	0	95	0	0	0	0	0	0	0	0	0	0	1	0	213
5:45 PM	0	6	115	0	0	121	0	0	120	0	120	0	1	0	0	0	1	0	0	0	0	0	0	242
Hourly Total	0	19	466	0	0	485	0	0	434	1	435	0	2	0	0	1	2	0	0	0	1	1	1	923
Grand Total	1	75	2430	5	0	2511	1	0	2123	20	2144	0	7	0	1	3	8	0	8	0	3	9	11	4674
Approach %	0.0	3.0	96.8	0.2	-	-	0.0	0.0	99.0	0.9	-	0.0	87.5	0.0	12.5	-	-	0.0	72.7	0.0	27.3	-	-	-
Total %	0.0	1.6	52.0	0.1	-	53.7	0.0	0.0	45.4	0.4	45.9	0.0	0.1	0.0	0.0	-	0.2	0.0	0.2	0.0	0.1	-	0.2	-
Lights	1	71	2352	4	-	2428	1	0	2044	19	2064	0	6	0	1	-	7	0	8	0	3	-	11	4510



% Lights	100.0	94.7	96.8	80.0	-	96.7	100.0	-	96.3	95.0	96.3	-	85.7	-	100.0	-	87.5	-	100.0	-	100.0	-	100.0	96.5
Buses	0	4	47	0	-	51	0	0	44	1	45	0	0	0	0	-	0	0	0	0	0	-	0	96
% Buses	0.0	5.3	1.9	0.0	-	2.0	0.0	-	2.1	5.0	2.1	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	2.1
Single-Unit Trucks	0	0	27	1	-	28	0	0	30	0	30	0	1	0	0	-	1	0	0	0	0	-	0	59
% Single-Unit Trucks	0.0	0.0	1.1	20.0	-	1.1	0.0	-	1.4	0.0	1.4	-	14.3	-	0.0	-	12.5	-	0.0	-	0.0	-	0.0	1.3
Articulated Trucks	0	0	4	0	-	4	0	0	5	0	5	0	0	0	0	-	0	0	0	0	0	-	0	9
% Articulated Trucks	0.0	0.0	0.2	0.0	-	0.2	0.0	-	0.2	0.0	0.2	-	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
Pedestrians	-	-	-	-	0	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	9	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-



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Count Name: 119th Street with Salvation  
Army/MIFAB Access Drive TMC  
Site Code:  
Start Date: 03/28/2023  
Page No: 3

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

Start Time	119th Street Eastbound						119th Street Westbound					MIFAB Access Drive Northbound						Salvation Army Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:30 AM	0	2	109	1	0	112	1	0	112	0	113	0	1	0	0	0	1	0	1	0	0	1	1	227
7:45 AM	1	4	116	0	0	121	0	0	69	0	69	0	0	0	0	0	0	0	1	0	0	1	1	191
8:00 AM	0	5	141	2	0	148	0	0	75	0	75	0	1	0	1	0	2	0	1	0	0	1	1	226
8:15 AM	0	4	141	0	0	145	0	0	86	2	88	0	1	0	0	0	1	0	1	0	1	1	2	236
<b>Total</b>	<b>1</b>	<b>15</b>	<b>507</b>	<b>3</b>	<b>0</b>	<b>526</b>	<b>1</b>	<b>0</b>	<b>342</b>	<b>2</b>	<b>345</b>	<b>0</b>	<b>3</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>5</b>	<b>880</b>
Approach %	0.2	2.9	96.4	0.6	-	-	0.3	0.0	99.1	0.6	-	0.0	75.0	0.0	25.0	-	-	0.0	80.0	0.0	20.0	-	-	-
Total %	0.1	1.7	57.6	0.3	-	59.8	0.1	0.0	38.9	0.2	39.2	0.0	0.3	0.0	0.1	-	0.5	0.0	0.5	0.0	0.1	-	0.6	-
PHF	0.250	0.750	0.899	0.375	-	0.889	0.250	0.000	0.763	0.250	0.763	0.000	0.750	0.000	0.250	-	0.500	0.000	1.000	0.000	0.250	-	0.625	0.932
Lights	1	14	492	3	-	510	1	0	320	2	323	0	3	0	1	-	4	0	4	0	1	-	5	842
% Lights	100.0	93.3	97.0	100.0	-	97.0	100.0	-	93.6	100.0	93.6	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	95.7
Buses	0	1	7	0	-	8	0	0	9	0	9	0	0	0	0	-	0	0	0	0	0	-	0	17
% Buses	0.0	6.7	1.4	0.0	-	1.5	0.0	-	2.6	0.0	2.6	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	1.9
Single-Unit Trucks	0	0	7	0	-	7	0	0	11	0	11	0	0	0	0	-	0	0	0	0	0	-	0	18
% Single-Unit Trucks	0.0	0.0	1.4	0.0	-	1.3	0.0	-	3.2	0.0	3.2	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	2.0
Articulated Trucks	0	0	1	0	-	1	0	0	2	0	2	0	0	0	0	-	0	0	0	0	0	-	0	3
% Articulated Trucks	0.0	0.0	0.2	0.0	-	0.2	0.0	-	0.6	0.0	0.6	-	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
Pedestrians	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	4	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-



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Count Name: 119th Street with Salvation  
Army/MIFAB Access Drive TMC  
Site Code:  
Start Date: 03/28/2023  
Page No: 4

### Turning Movement Peak Hour Data (4:00 PM)

Start Time	119th Street Eastbound						119th Street Westbound					MIFAB Access Drive Northbound						Salvation Army Access Drive Southbound						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
4:00 PM	0	5	138	0	0	143	0	0	140	0	140	0	1	0	0	1	1	0	0	0	0	0	0	284
4:15 PM	0	1	121	0	0	122	0	0	104	1	105	0	0	0	0	0	0	0	0	0	0	0	0	227
4:30 PM	0	6	105	0	0	111	0	0	85	0	85	0	0	0	0	0	0	0	1	0	0	0	1	197
4:45 PM	0	8	126	1	0	135	0	0	117	1	118	0	0	0	0	1	0	0	1	0	0	1	1	254
Total	0	20	490	1	0	511	0	0	446	2	448	0	1	0	0	2	1	0	2	0	0	1	2	962
Approach %	0.0	3.9	95.9	0.2	-	-	0.0	0.0	99.6	0.4	-	0.0	100.0	0.0	0.0	-	-	0.0	100.0	0.0	0.0	-	-	-
Total %	0.0	2.1	50.9	0.1	-	53.1	0.0	0.0	46.4	0.2	46.6	0.0	0.1	0.0	0.0	-	0.1	0.0	0.2	0.0	0.0	-	0.2	-
PHF	0.000	0.625	0.888	0.250	-	0.893	0.000	0.000	0.796	0.500	0.800	0.000	0.250	0.000	0.000	-	0.250	0.000	0.500	0.000	0.000	-	0.500	0.847
Lights	0	20	484	0	-	504	0	0	436	1	437	0	1	0	0	-	1	0	2	0	0	-	2	944
% Lights	-	100.0	98.8	0.0	-	98.6	-	-	97.8	50.0	97.5	-	100.0	-	-	-	100.0	-	100.0	-	-	-	100.0	98.1
Buses	0	0	3	0	-	3	0	0	6	1	7	0	0	0	0	-	0	0	0	0	0	-	0	10
% Buses	-	0.0	0.6	0.0	-	0.6	-	-	1.3	50.0	1.6	-	0.0	-	-	-	0.0	-	0.0	-	-	-	0.0	1.0
Single-Unit Trucks	0	0	3	1	-	4	0	0	3	0	3	0	0	0	0	-	0	0	0	0	0	-	0	7
% Single-Unit Trucks	-	0.0	0.6	100.0	-	0.8	-	-	0.7	0.0	0.7	-	0.0	-	-	-	0.0	-	0.0	-	-	-	0.0	0.7
Articulated Trucks	0	0	0	0	-	0	0	0	1	0	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	-	0.2	0.0	0.2	-	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
Pedestrians	-	-	-	-	0	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name:  
119th+Street+and+Ashland+Avenue TMC  
Site Code:  
Start Date: 03/28/2023  
Page No: 1

### Turning Movement Data

Start Time	119th Street Eastbound						119th Street Westbound						Ashland Avenue Northbound						Ashland 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	
6:00 AM	0	70	43	0	0	113	0	0	61	31	1	92	0	38	38	31	1	107	0	0	0	0	0	0	312
6:15 AM	0	53	54	0	0	107	0	0	66	20	1	86	0	52	41	46	0	139	0	0	0	0	0	0	332
6:30 AM	0	57	83	0	0	140	0	0	79	35	0	114	0	80	67	65	1	212	0	0	0	0	2	0	466
6:45 AM	0	74	86	0	0	160	0	0	77	23	1	100	0	74	52	69	1	195	0	0	0	0	0	0	455
Hourly Total	0	254	266	0	0	520	0	0	283	109	3	392	0	244	198	211	3	653	0	0	0	0	2	0	1565
7:00 AM	0	58	101	0	0	159	0	0	68	27	0	95	0	77	51	56	0	184	0	0	0	0	0	0	438
7:15 AM	0	62	80	0	0	142	0	0	80	30	0	110	0	57	44	62	2	163	0	0	0	0	0	0	415
7:30 AM	0	79	89	0	0	168	0	0	56	25	0	81	0	56	40	41	1	137	0	0	0	0	0	0	386
7:45 AM	0	61	89	0	0	150	0	0	66	23	0	89	0	52	32	34	0	118	0	0	0	0	0	0	357
Hourly Total	0	260	359	0	0	619	0	0	270	105	0	375	0	242	167	193	3	602	0	0	0	0	0	0	1596
8:00 AM	0	89	79	0	0	168	0	0	61	32	2	93	0	50	33	33	0	116	0	0	0	0	0	0	377
8:15 AM	0	61	73	0	0	134	0	0	83	32	0	115	0	41	26	43	2	110	0	0	0	0	0	0	359
8:30 AM	0	78	68	0	0	146	0	0	62	34	0	96	0	58	24	35	0	117	0	0	0	0	0	0	359
8:45 AM	0	68	77	0	0	145	0	0	55	36	0	91	0	48	27	46	1	121	0	0	0	0	0	0	357
Hourly Total	0	296	297	0	0	593	0	0	261	134	2	395	0	197	110	157	3	464	0	0	0	0	0	0	1452
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	88	95	0	0	183	0	0	126	44	0	170	0	85	53	52	0	190	0	0	0	0	2	0	543
3:15 PM	0	91	102	0	1	193	0	0	89	25	0	114	0	74	48	45	1	167	0	0	0	0	1	0	474
3:30 PM	0	119	106	0	0	225	0	0	83	31	1	114	0	74	30	41	3	145	0	0	0	0	1	0	484
3:45 PM	0	96	112	0	0	208	0	0	106	38	0	144	0	81	49	37	0	167	0	0	0	0	1	0	519
Hourly Total	0	394	415	0	1	809	0	0	404	138	1	542	0	314	180	175	4	669	0	0	0	0	5	0	2020
4:00 PM	0	109	117	0	0	226	0	0	108	44	1	152	0	67	36	37	2	140	0	0	0	0	0	0	518
4:15 PM	0	115	112	0	0	227	0	0	94	27	0	121	0	76	50	40	1	166	0	0	0	0	1	0	514
4:30 PM	0	93	85	0	1	178	0	0	84	37	1	121	0	67	47	41	2	155	0	0	0	0	4	0	454
4:45 PM	0	78	124	0	0	202	0	0	103	36	0	139	0	59	39	39	0	137	0	0	0	0	1	0	478
Hourly Total	0	395	438	0	1	833	0	0	389	144	2	533	0	269	172	157	5	598	0	0	0	0	6	0	1964
5:00 PM	0	85	99	0	0	184	0	0	101	32	0	133	0	62	36	31	0	129	0	0	0	0	2	0	446
5:15 PM	0	102	110	0	0	212	0	0	80	39	0	119	0	67	39	42	2	148	0	0	0	0	0	0	479
5:30 PM	0	78	111	0	0	189	0	0	76	24	0	100	0	61	49	35	0	145	0	0	0	0	0	0	434
5:45 PM	0	90	126	0	0	216	0	0	94	32	1	126	0	48	39	25	2	112	0	0	0	0	2	0	454
Hourly Total	0	355	446	0	0	801	0	0	351	127	1	478	0	238	163	133	4	534	0	0	0	0	4	0	1813
Grand Total	0	1954	2221	0	2	4175	0	0	1958	757	9	2715	0	1504	990	1026	22	3520	0	0	0	0	17	0	10410
Approach %	0.0	46.8	53.2	0.0	-	-	0.0	0.0	72.1	27.9	-	-	0.0	42.7	28.1	29.1	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	18.8	21.3	0.0	-	40.1	0.0	0.0	18.8	7.3	-	26.1	0.0	14.4	9.5	9.9	-	33.8	0.0	0.0	0.0	0.0	-	0.0	-
Lights	0	1849	2149	0	-	3998	0	0	1893	739	-	2632	0	1409	972	1004	-	3385	0	0	0	0	-	0	10015

% Lights	-	94.6	96.8	-	-	95.8	-	-	96.7	97.6	-	96.9	-	93.7	98.2	97.9	-	96.2	-	-	-	-	-	-	-	96.2
Buses	0	52	46	0	-	98	0	0	44	6	-	50	0	6	11	3	-	20	0	0	0	0	-	0	0	168
% Buses	-	2.7	2.1	-	-	2.3	-	-	2.2	0.8	-	1.8	-	0.4	1.1	0.3	-	0.6	-	-	-	-	-	-	-	1.6
Single-Unit Trucks	0	26	21	0	-	47	0	0	17	10	-	27	0	27	5	18	-	50	0	0	0	0	-	0	0	124
% Single-Unit Trucks	-	1.3	0.9	-	-	1.1	-	-	0.9	1.3	-	1.0	-	1.8	0.5	1.8	-	1.4	-	-	-	-	-	-	-	1.2
Articulated Trucks	0	27	5	0	-	32	0	0	4	1	-	5	0	62	2	1	-	65	0	0	0	0	-	0	0	102
% Articulated Trucks	-	1.4	0.2	-	-	0.8	-	-	0.2	0.1	-	0.2	-	4.1	0.2	0.1	-	1.8	-	-	-	-	-	-	-	1.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	-	-	0.0	-	-	0.0	0.1	-	0.0	-	0.0	0.0	0.0	-	0.0	-	-	-	-	-	-	-	0.0
Pedestrians	-	-	-	-	2	-	-	-	-	9	-	-	-	-	-	-	22	-	-	-	-	-	-	17	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-



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119th+Street+and+Ashland+Avenue TMC  
Site Code:  
Start Date: 03/28/2023  
Page No: 3

### Turning Movement Peak Hour Data (6:30 AM)

Start Time	119th Street Eastbound						119th Street Westbound						Ashland Avenue Northbound						Ashland 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	
6:30 AM	0	57	83	0	0	140	0	0	79	35	0	114	0	80	67	65	1	212	0	0	0	0	2	0	466
6:45 AM	0	74	86	0	0	160	0	0	77	23	1	100	0	74	52	69	1	195	0	0	0	0	0	0	455
7:00 AM	0	58	101	0	0	159	0	0	68	27	0	95	0	77	51	56	0	184	0	0	0	0	0	0	438
7:15 AM	0	62	80	0	0	142	0	0	80	30	0	110	0	57	44	62	2	163	0	0	0	0	0	0	415
Total	0	251	350	0	0	601	0	0	304	115	1	419	0	288	214	252	4	754	0	0	0	0	2	0	1774
Approach %	0.0	41.8	58.2	0.0	-	-	0.0	0.0	72.6	27.4	-	-	0.0	38.2	28.4	33.4	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	14.1	19.7	0.0	-	33.9	0.0	0.0	17.1	6.5	-	23.6	0.0	16.2	12.1	14.2	-	42.5	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.848	0.866	0.000	-	0.939	0.000	0.000	0.950	0.821	-	0.919	0.000	0.900	0.799	0.913	-	0.889	0.000	0.000	0.000	0.000	-	0.000	0.952
Lights	0	232	340	0	-	572	0	0	287	113	-	400	0	254	210	248	-	712	0	0	0	0	-	0	1684
% Lights	-	92.4	97.1	-	-	95.2	-	-	94.4	98.3	-	95.5	-	88.2	98.1	98.4	-	94.4	-	-	-	-	-	-	94.9
Buses	0	9	7	0	-	16	0	0	7	1	-	8	0	2	2	0	-	4	0	0	0	0	-	0	28
% Buses	-	3.6	2.0	-	-	2.7	-	-	2.3	0.9	-	1.9	-	0.7	0.9	0.0	-	0.5	-	-	-	-	-	-	1.6
Single-Unit Trucks	0	4	2	0	-	6	0	0	8	1	-	9	0	9	2	4	-	15	0	0	0	0	-	0	30
% Single-Unit Trucks	-	1.6	0.6	-	-	1.0	-	-	2.6	0.9	-	2.1	-	3.1	0.9	1.6	-	2.0	-	-	-	-	-	-	1.7
Articulated Trucks	0	6	1	0	-	7	0	0	2	0	-	2	0	23	0	0	-	23	0	0	0	0	-	0	32
% Articulated Trucks	-	2.4	0.3	-	-	1.2	-	-	0.7	0.0	-	0.5	-	8.0	0.0	0.0	-	3.1	-	-	-	-	-	-	1.8
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
Pedestrians	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	2	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name:  
119th+Street+and+Ashland+Avenue TMC  
Site Code:  
Start Date: 03/28/2023  
Page No: 4

### Turning Movement Peak Hour Data (3:00 PM)

Start Time	119th Street Eastbound						119th Street Westbound						Ashland Avenue Northbound						Ashland 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	
3:00 PM	0	88	95	0	0	183	0	0	126	44	0	170	0	85	53	52	0	190	0	0	0	0	2	0	543
3:15 PM	0	91	102	0	1	193	0	0	89	25	0	114	0	74	48	45	1	167	0	0	0	0	1	0	474
3:30 PM	0	119	106	0	0	225	0	0	83	31	1	114	0	74	30	41	3	145	0	0	0	0	1	0	484
3:45 PM	0	96	112	0	0	208	0	0	106	38	0	144	0	81	49	37	0	167	0	0	0	0	1	0	519
Total	0	394	415	0	1	809	0	0	404	138	1	542	0	314	180	175	4	669	0	0	0	0	5	0	2020
Approach %	0.0	48.7	51.3	0.0	-	-	0.0	0.0	74.5	25.5	-	-	0.0	46.9	26.9	26.2	-	-	0.0	0.0	0.0	0.0	-	-	-
Total %	0.0	19.5	20.5	0.0	-	40.0	0.0	0.0	20.0	6.8	-	26.8	0.0	15.5	8.9	8.7	-	33.1	0.0	0.0	0.0	0.0	-	0.0	-
PHF	0.000	0.828	0.926	0.000	-	0.899	0.000	0.000	0.802	0.784	-	0.797	0.000	0.924	0.849	0.841	-	0.880	0.000	0.000	0.000	0.000	-	0.000	0.930
Lights	0	379	406	0	-	785	0	0	393	133	-	526	0	302	179	172	-	653	0	0	0	0	-	0	1964
% Lights	-	96.2	97.8	-	-	97.0	-	-	97.3	96.4	-	97.0	-	96.2	99.4	98.3	-	97.6	-	-	-	-	-	-	97.2
Buses	0	9	4	0	-	13	0	0	8	1	-	9	0	1	1	1	-	3	0	0	0	0	-	0	25
% Buses	-	2.3	1.0	-	-	1.6	-	-	2.0	0.7	-	1.7	-	0.3	0.6	0.6	-	0.4	-	-	-	-	-	-	1.2
Single-Unit Trucks	0	3	5	0	-	8	0	0	3	4	-	7	0	7	0	2	-	9	0	0	0	0	-	0	24
% Single-Unit Trucks	-	0.8	1.2	-	-	1.0	-	-	0.7	2.9	-	1.3	-	2.2	0.0	1.1	-	1.3	-	-	-	-	-	-	1.2
Articulated Trucks	0	3	0	0	-	3	0	0	0	0	-	0	0	4	0	0	-	4	0	0	0	0	-	0	7
% Articulated Trucks	-	0.8	0.0	-	-	0.4	-	-	0.0	0.0	-	0.0	-	1.3	0.0	0.0	-	0.6	-	-	-	-	-	-	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
Pedestrians	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: 120th Street with Halsted Street  
TMC  
Site Code:  
Start Date: 03/28/2023  
Page No: 1

### Turning Movement Data

Start Time	120th Street Eastbound						120th Street Westbound						Halsted Street Northbound						Halsted Street 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	
6:00 AM	0	1	0	4	1	5	0	3	1	7	2	11	0	4	163	6	0	173	0	0	51	3	0	54	243
6:15 AM	0	3	0	1	0	4	0	3	4	4	1	11	1	3	198	6	0	208	0	0	61	1	0	62	285
6:30 AM	0	0	0	3	1	3	0	4	3	11	0	18	1	9	177	1	0	188	0	6	61	0	4	67	276
6:45 AM	0	4	1	6	0	11	0	5	0	5	0	10	0	7	166	7	0	180	1	1	100	2	0	104	305
Hourly Total	0	8	1	14	2	23	0	15	8	27	3	50	2	23	704	20	0	749	1	7	273	6	4	287	1109
7:00 AM	0	3	0	3	2	6	0	6	4	9	3	19	1	3	192	5	2	201	0	3	106	0	1	109	335
7:15 AM	0	2	0	4	0	6	0	3	2	7	2	12	1	8	175	5	0	189	0	8	94	1	0	103	310
7:30 AM	0	0	1	8	0	9	0	8	2	8	1	18	0	9	138	4	0	151	2	5	96	1	0	104	282
7:45 AM	0	3	2	6	0	11	0	8	1	3	1	12	0	6	152	8	0	166	1	2	119	1	3	123	312
Hourly Total	0	8	3	21	2	32	0	25	9	27	7	61	2	26	657	22	2	707	3	18	415	3	4	439	1239
8:00 AM	0	3	0	7	1	10	0	5	0	7	0	12	0	3	123	3	0	129	1	1	96	2	0	100	251
8:15 AM	0	2	1	2	0	5	0	2	2	4	0	8	0	4	118	4	0	126	0	6	84	3	2	93	232
8:30 AM	0	1	2	4	1	7	0	7	2	6	0	15	0	4	109	5	0	118	0	3	93	3	1	99	239
8:45 AM	0	0	2	5	0	7	0	4	4	4	0	12	1	4	103	3	0	111	1	4	90	1	0	96	226
Hourly Total	0	6	5	18	2	29	0	18	8	21	0	47	1	15	453	15	0	484	2	14	363	9	3	388	948
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	2	1	9	6	12	0	12	4	8	1	24	0	4	171	10	1	185	0	6	161	0	3	167	388
3:15 PM	0	3	2	6	5	11	0	2	4	5	1	11	0	4	156	6	0	166	0	7	166	2	0	175	363
3:30 PM	0	1	2	8	0	11	0	9	3	1	0	13	2	7	124	11	0	144	0	8	192	1	0	201	369
3:45 PM	0	2	3	8	4	13	0	5	3	3	1	11	0	5	149	4	1	158	0	5	181	0	0	186	368
Hourly Total	0	8	8	31	15	47	0	28	14	17	3	59	2	20	600	31	2	653	0	26	700	3	3	729	1488
4:00 PM	0	1	1	8	0	10	0	7	2	6	1	15	0	4	150	10	0	164	0	12	177	0	0	189	378
4:15 PM	0	2	2	7	6	11	0	2	3	4	2	9	0	3	124	6	1	133	1	6	193	0	2	200	353
4:30 PM	0	1	0	6	8	7	0	3	0	9	0	12	1	3	112	13	2	129	0	4	161	1	0	166	314
4:45 PM	0	0	3	7	1	10	0	6	3	6	1	15	0	3	140	11	0	154	0	5	170	1	0	176	355
Hourly Total	0	4	6	28	15	38	0	18	8	25	4	51	1	13	526	40	3	580	1	27	701	2	2	731	1400
5:00 PM	0	1	1	4	2	6	0	5	4	6	0	15	0	3	109	5	1	117	1	6	157	0	0	164	302
5:15 PM	0	1	1	4	3	6	0	8	1	2	0	11	0	4	131	7	1	142	1	8	153	0	0	162	321
5:30 PM	0	1	8	5	0	14	0	2	3	5	1	10	1	4	108	6	0	119	0	8	115	0	0	123	266
5:45 PM	0	1	5	2	0	8	0	3	1	9	0	13	0	2	92	8	0	102	1	13	125	0	0	139	262
Hourly Total	0	4	15	15	5	34	0	18	9	22	1	49	1	13	440	26	2	480	3	35	550	0	0	588	1151
Grand Total	0	38	38	127	41	203	0	122	56	139	18	317	9	110	3380	154	9	3653	10	127	3002	23	16	3162	7335
Approach %	0.0	18.7	18.7	62.6	-	-	0.0	38.5	17.7	43.8	-	-	0.2	3.0	92.5	4.2	-	-	0.3	4.0	94.9	0.7	-	-	-
Total %	0.0	0.5	0.5	1.7	-	2.8	0.0	1.7	0.8	1.9	-	4.3	0.1	1.5	46.1	2.1	-	49.8	0.1	1.7	40.9	0.3	-	43.1	-
Lights	0	16	37	126	-	179	0	120	55	135	-	310	9	109	3246	149	-	3513	10	124	2865	20	-	3019	7021



% Lights	-	42.1	97.4	99.2	-	88.2	-	98.4	98.2	97.1	-	97.8	100.0	99.1	96.0	96.8	-	96.2	100.0	97.6	95.4	87.0	-	95.5	95.7
Buses	0	20	0	0	-	20	0	0	0	3	-	3	0	0	94	2	-	96	0	2	94	1	-	97	216
% Buses	-	52.6	0.0	0.0	-	9.9	-	0.0	0.0	2.2	-	0.9	0.0	0.0	2.8	1.3	-	2.6	0.0	1.6	3.1	4.3	-	3.1	2.9
Single-Unit Trucks	0	2	1	1	-	4	0	2	0	1	-	3	0	1	34	3	-	38	0	1	39	2	-	42	87
% Single-Unit Trucks	-	5.3	2.6	0.8	-	2.0	-	1.6	0.0	0.7	-	0.9	0.0	0.9	1.0	1.9	-	1.0	0.0	0.8	1.3	8.7	-	1.3	1.2
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	6	0	-	6	0	0	4	0	-	4	10
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.2	0.0	-	0.2	0.0	0.0	0.1	0.0	-	0.1	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
% Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	1.8	0.0	-	0.3	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0
Pedestrians	-	-	-	-	41	-	-	-	-	18	-	-	-	-	-	-	9	-	-	-	-	-	16	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: 120th Street with Halsted Street  
TMC  
Site Code:  
Start Date: 03/28/2023  
Page No: 3

### Turning Movement Peak Hour Data (6:30 AM)

Start Time	120th Street Eastbound						120th Street Westbound						Halsted Street Northbound						Halsted Street 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	
6:30 AM	0	0	0	3	1	3	0	4	3	11	0	18	1	9	177	1	0	188	0	6	61	0	4	67	276
6:45 AM	0	4	1	6	0	11	0	5	0	5	0	10	0	7	166	7	0	180	1	1	100	2	0	104	305
7:00 AM	0	3	0	3	2	6	0	6	4	9	3	19	1	3	192	5	2	201	0	3	106	0	1	109	335
7:15 AM	0	2	0	4	0	6	0	3	2	7	2	12	1	8	175	5	0	189	0	8	94	1	0	103	310
<b>Total</b>	<b>0</b>	<b>9</b>	<b>1</b>	<b>16</b>	<b>3</b>	<b>26</b>	<b>0</b>	<b>18</b>	<b>9</b>	<b>32</b>	<b>5</b>	<b>59</b>	<b>3</b>	<b>27</b>	<b>710</b>	<b>18</b>	<b>2</b>	<b>758</b>	<b>1</b>	<b>18</b>	<b>361</b>	<b>3</b>	<b>5</b>	<b>383</b>	<b>1226</b>
Approach %	0.0	34.6	3.8	61.5	-	-	0.0	30.5	15.3	54.2	-	-	0.4	3.6	93.7	2.4	-	-	0.3	4.7	94.3	0.8	-	-	-
Total %	0.0	0.7	0.1	1.3	-	2.1	0.0	1.5	0.7	2.6	-	4.8	0.2	2.2	57.9	1.5	-	61.8	0.1	1.5	29.4	0.2	-	31.2	-
PHF	0.000	0.563	0.250	0.667	-	0.591	0.000	0.750	0.563	0.727	-	0.776	0.750	0.750	0.924	0.643	-	0.943	0.250	0.563	0.851	0.375	-	0.878	0.915
Lights	0	5	1	16	-	22	0	18	9	31	-	58	3	27	683	18	-	731	1	16	334	3	-	354	1165
% Lights	-	55.6	100.0	100.0	-	84.6	-	100.0	100.0	96.9	-	98.3	100.0	100.0	96.2	100.0	-	96.4	100.0	88.9	92.5	100.0	-	92.4	95.0
Buses	0	4	0	0	-	4	0	0	0	1	-	1	0	0	21	0	-	21	0	1	18	0	-	19	45
% Buses	-	44.4	0.0	0.0	-	15.4	-	0.0	0.0	3.1	-	1.7	0.0	0.0	3.0	0.0	-	2.8	0.0	5.6	5.0	0.0	-	5.0	3.7
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	4	0	-	4	0	1	9	0	-	10	14
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.6	0.0	-	0.5	0.0	5.6	2.5	0.0	-	2.6	1.1
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	2
% Articulated Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.3	0.0	-	0.3	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	0.0
Pedestrians	-	-	-	-	3	-	-	-	-	-	5	-	-	-	-	-	2	-	-	-	-	-	5	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: 120th Street with Halsted Street  
TMC  
Site Code:  
Start Date: 03/28/2023  
Page No: 4

### Turning Movement Peak Hour Data (3:00 PM)

Start Time	120th Street Eastbound						120th Street Westbound						Halsted Street Northbound						Halsted Street 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	
3:00 PM	0	2	1	9	6	12	0	12	4	8	1	24	0	4	171	10	1	185	0	6	161	0	3	167	388
3:15 PM	0	3	2	6	5	11	0	2	4	5	1	11	0	4	156	6	0	166	0	7	166	2	0	175	363
3:30 PM	0	1	2	8	0	11	0	9	3	1	0	13	2	7	124	11	0	144	0	8	192	1	0	201	369
3:45 PM	0	2	3	8	4	13	0	5	3	3	1	11	0	5	149	4	1	158	0	5	181	0	0	186	368
<b>Total</b>	0	8	8	31	15	47	0	28	14	17	3	59	2	20	600	31	2	653	0	26	700	3	3	729	1488
Approach %	0.0	17.0	17.0	66.0	-	-	0.0	47.5	23.7	28.8	-	-	0.3	3.1	91.9	4.7	-	-	0.0	3.6	96.0	0.4	-	-	-
Total %	0.0	0.5	0.5	2.1	-	3.2	0.0	1.9	0.9	1.1	-	4.0	0.1	1.3	40.3	2.1	-	43.9	0.0	1.7	47.0	0.2	-	49.0	-
PHF	0.000	0.667	0.667	0.861	-	0.904	0.000	0.583	0.875	0.531	-	0.615	0.250	0.714	0.877	0.705	-	0.882	0.000	0.813	0.911	0.375	-	0.907	0.959
Lights	0	3	8	31	-	42	0	28	14	17	-	59	2	20	581	31	-	634	0	25	677	2	-	704	1439
% Lights	-	37.5	100.0	100.0	-	89.4	-	100.0	100.0	100.0	-	100.0	100.0	100.0	96.8	100.0	-	97.1	-	96.2	96.7	66.7	-	96.6	96.7
Buses	0	5	0	0	-	5	0	0	0	0	-	0	0	0	16	0	-	16	0	1	21	1	-	23	44
% Buses	-	62.5	0.0	0.0	-	10.6	-	0.0	0.0	0.0	-	0.0	0.0	0.0	2.7	0.0	-	2.5	-	3.8	3.0	33.3	-	3.2	3.0
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	3	0	-	3	0	0	2	0	-	2	5
% Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.5	0.0	-	0.5	-	0.0	0.3	0.0	-	0.3	0.3
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
% Articulated Trucks	-	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
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	-	-	-	-	15	-	-	-	-	-	3	-	-	-	-	-	2	-	-	-	-	-	3	-	-
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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

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

Count Name: 120th Street with Morgan Street  
TMC  
Site Code:  
Start Date: 03/28/2023  
Page No: 1

### Turning Movement Data

Start Time	120th Street Eastbound					120th Street Westbound					Morgan Street Southbound					Int. Total
	U-Turn	Left	Thru	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	U-Turn	Left	Right	Peds	App. Total	
6:00 AM	0	0	0	0	0	0	0	3	0	3	0	1	0	0	1	4
6:15 AM	0	0	1	0	1	0	0	1	0	1	0	1	0	0	1	3
6:30 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
6:45 AM	0	0	0	0	0	0	0	2	0	2	0	1	0	0	1	3
Hourly Total	0	0	1	0	1	0	0	7	0	7	0	3	0	0	3	11
7:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	2
7:30 AM	0	0	0	0	0	0	1	7	0	8	0	0	2	0	2	10
7:45 AM	0	0	0	0	0	0	0	2	0	2	0	3	1	0	4	6
Hourly Total	0	0	0	0	0	0	1	12	0	13	0	3	3	0	6	19
8:00 AM	0	0	0	0	0	0	1	3	0	4	1	2	4	0	7	11
8:15 AM	0	0	0	0	0	1	0	1	0	2	0	2	0	0	2	4
8:30 AM	0	0	0	0	0	0	1	1	0	2	0	1	1	0	2	4
8:45 AM	0	0	0	0	0	0	0	1	0	1	0	5	0	0	5	6
Hourly Total	0	0	0	0	0	1	2	6	0	9	1	10	5	0	16	25
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3:00 PM	0	0	0	0	0	0	0	3	0	3	0	3	0	0	3	6
3:15 PM	0	0	0	0	0	0	0	8	0	8	0	4	0	0	4	12
3:30 PM	0	0	1	0	1	0	2	1	0	3	0	5	0	0	5	9
3:45 PM	0	0	0	0	0	0	0	4	0	4	0	2	0	0	2	6
Hourly Total	0	0	1	0	1	0	2	16	0	18	0	14	0	0	14	33
4:00 PM	0	0	1	0	1	0	1	4	0	5	0	5	1	0	6	12
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	4
4:30 PM	0	0	1	0	1	0	1	4	0	5	0	1	0	0	1	7
4:45 PM	0	0	0	0	0	0	0	2	0	2	0	1	0	0	1	3
Hourly Total	0	0	2	0	2	0	2	10	0	12	0	11	1	0	12	26
5:00 PM	0	0	0	0	0	0	0	2	0	2	0	6	0	0	6	8
5:15 PM	0	0	1	0	1	0	0	3	0	3	0	4	0	0	4	8
5:30 PM	0	0	0	0	0	0	0	2	0	2	0	3	0	0	3	5
5:45 PM	0	0	0	0	0	0	1	2	0	3	0	4	0	0	4	7
Hourly Total	0	0	1	0	1	0	1	9	0	10	0	17	0	0	17	28
Grand Total	0	0	5	0	5	1	8	60	0	69	1	58	9	0	68	142
Approach %	0.0	0.0	100.0	-	-	1.4	11.6	87.0	-	-	1.5	85.3	13.2	-	-	-
Total %	0.0	0.0	3.5	-	3.5	0.7	5.6	42.3	-	48.6	0.7	40.8	6.3	-	47.9	-
Lights	0	0	5	-	5	1	7	58	-	66	1	56	9	-	66	137
% Lights	-	-	100.0	-	100.0	100.0	87.5	96.7	-	95.7	100.0	96.6	100.0	-	97.1	96.5

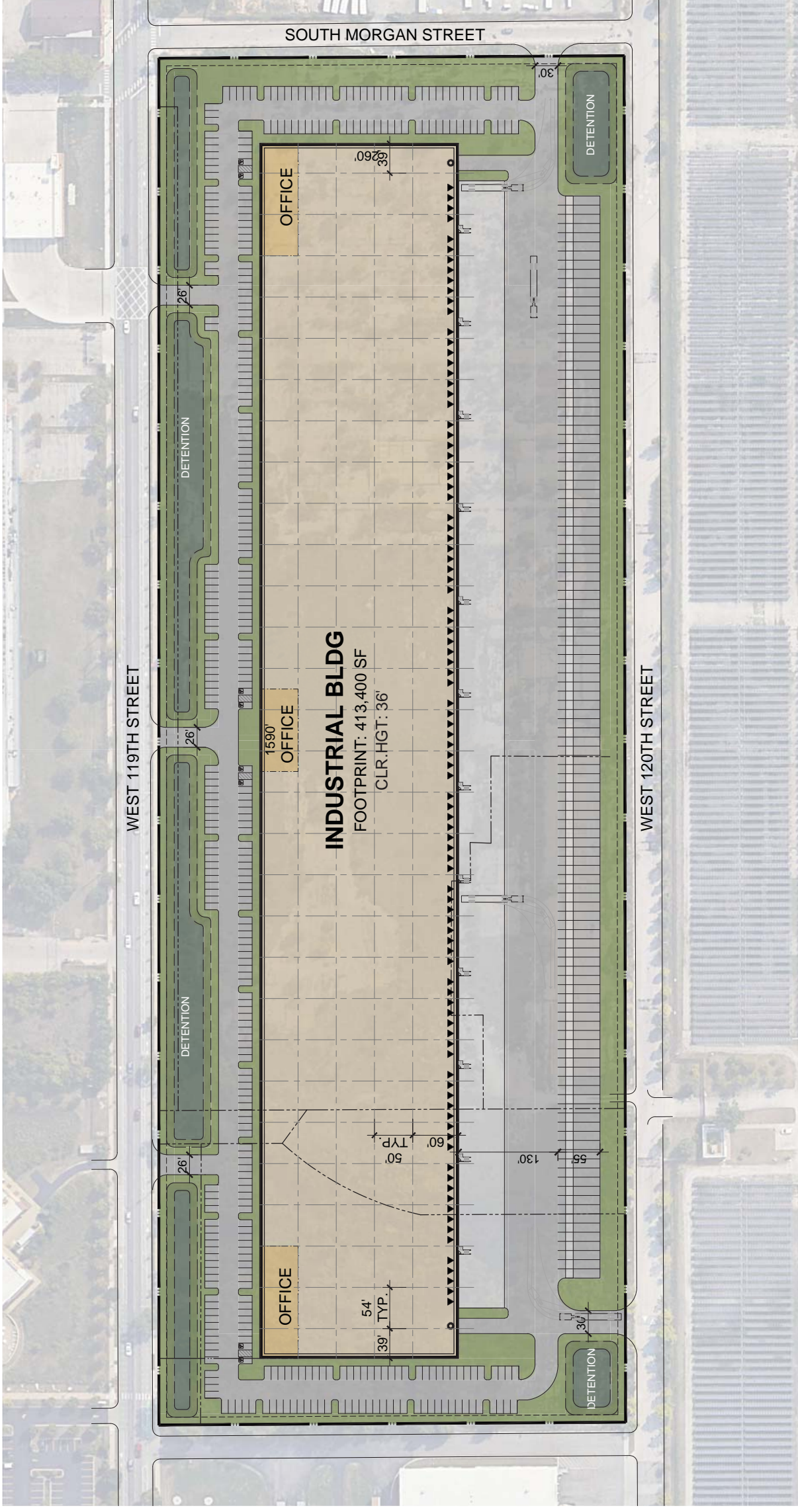






# Preliminary Site Plan





**PROJECT DATA:**

SITE AREA:	25.02 AC
GROSS:	1,090,063 SF
DETTENTION:	@ 8% 92,186 SF
NET:	22.91 AC 997,877 SF
BUILDING AREA:	
BUILDING 1:	413,400 SF
TOTAL FOOTPRINT:	413,400 SF
COVER AGE:	
GROSS:	38%
NET:	41%
<b>BUILDING 1</b>	
DOCK-HIGH DOORS	97
GRADE-LEVEL DOORS	2
AUTO PARKING	392 STALLS
	@0.95/1000 SF
TRAILER STALLS	8 STALLS
	119 STALLS

**DEVELOPMENT STANDARDS:**

ZONING:	PMD10
MAX. F.A.R.:	3.00
MAX. COVERAGE:	TBD
MAX. BLDG. HT.:	TBD
BUILDING SETBACKS:	
FRONT:	0 FT
SIDE:	0 FT
REAR:	30 FT
LANDSCAPE SETBACKS:	
FRONT:	10 FT
SIDE:	10 FT
REAR:	10 FT
LANDSCAPE REQ.:	10%
OFF-STREET PARKING:	8X18
STANDARD:	TBD
COMPACT %:	TBD
DRIVE AISLE:	22 FT
FIRE LANE:	26 FT
OVERHANG:	TBD
TREE WELL:	TBD
REQ. PARKING RATIO BY USE:	
WAREHOUSE:	1/4 EMP
OFFICE:	1/500 SF

**NOTES:**

- When abutting a street that is shared with an R district, the setback must match the setback of that district. (0810)
- After the first 4,000sf
- To be determined by city

**A PORTION OF THE ZONING INFORMATION IS UNKNOWN AT THIS TIME AND REQUIREMENTS MAY DIFFER THAN WHAT IS SHOWN IN THE SITE PLAN.**

This conceptual design is based upon a preliminary review of entitlement requirements and on the information provided. It is intended merely to assist in exploring how the project might be developed.

Stormwater Management Design: ASSUMED SOME UNDERGROUND SYSTEM

Boundary Sources: GIS MAP & AERIAL IMAGE



scheme: 11 Conceptual Site Plan

West 119th Street  
Chicago, IL 60643

**WARE MALCOMB**

CHD22-0022-00  
05.15.2023

SHEET  
1



# ITE Trip Generation Worksheets

# Warehousing (150)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**  
On a: Weekday

**Setting/Location: General Urban/Suburban**

Number of Studies: 31

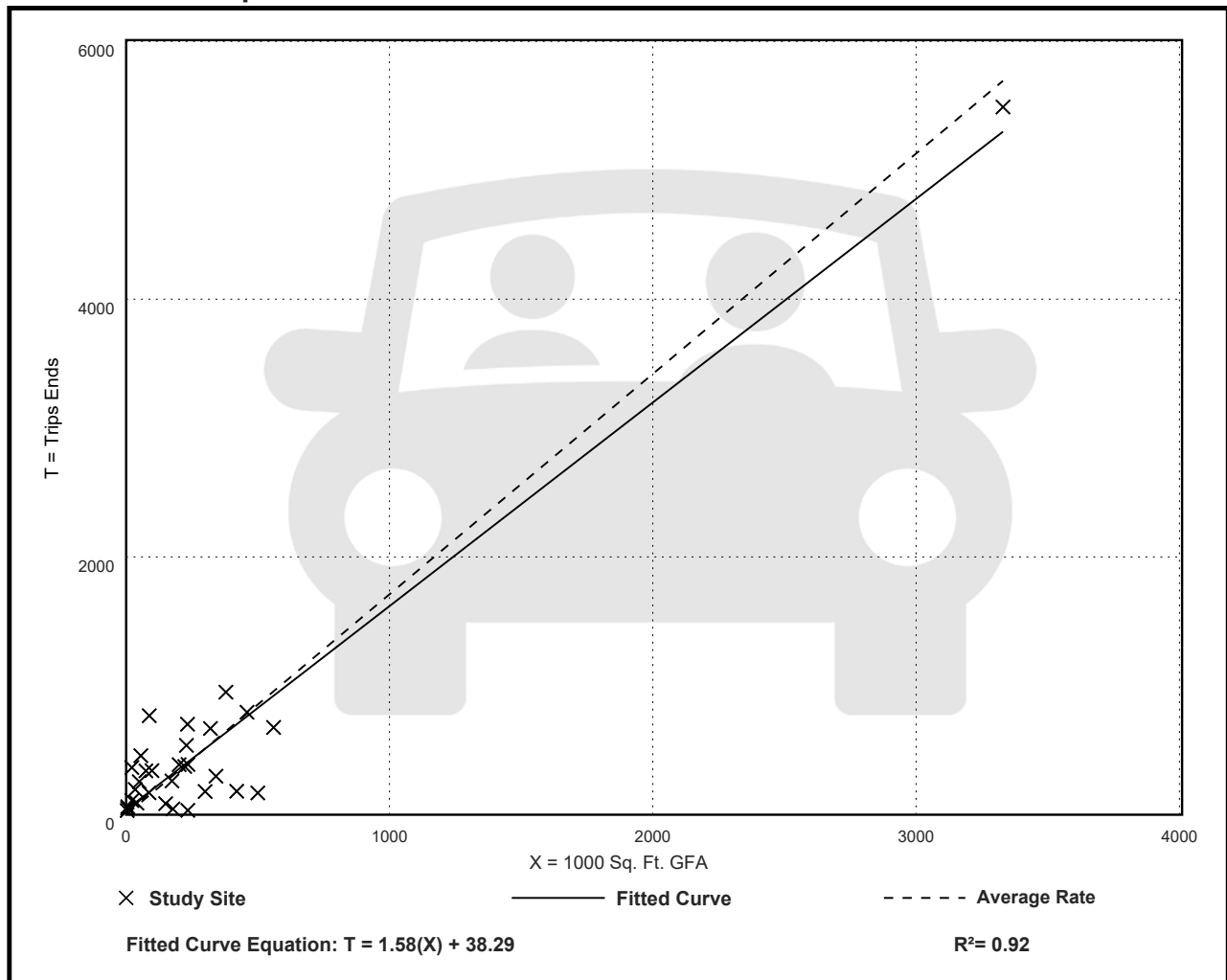
Avg. 1000 Sq. Ft. GFA: 292

Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.71	0.15 - 16.93	1.48

## Data Plot and Equation



# Warehousing (150)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**

**On a: Weekday,**

**Peak Hour of Adjacent Street Traffic,**

**One Hour Between 7 and 9 a.m.**

**Setting/Location: General Urban/Suburban**

Number of Studies: 36

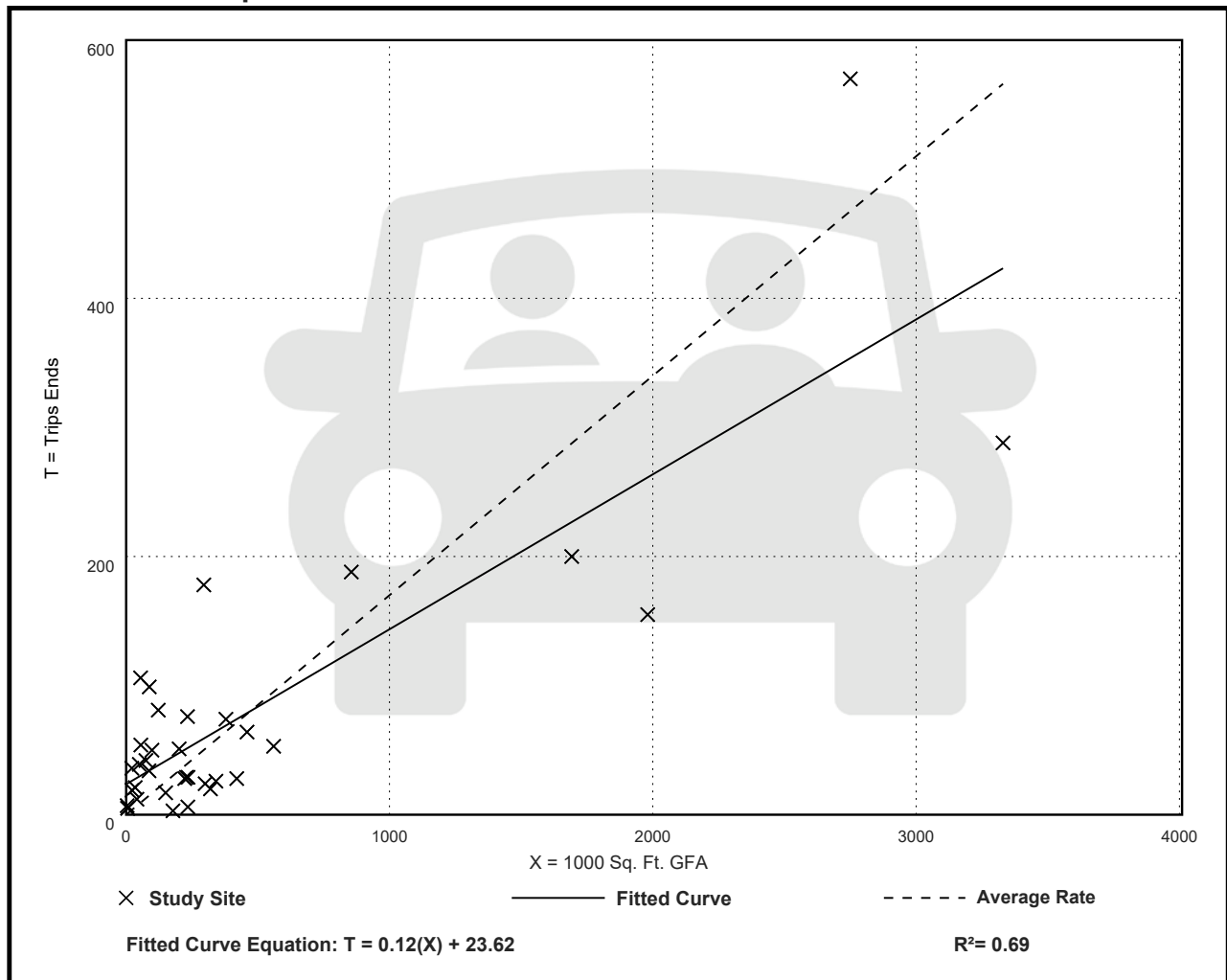
Avg. 1000 Sq. Ft. GFA: 448

Directional Distribution: 77% entering, 23% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.17	0.02 - 1.93	0.19

## Data Plot and Equation



# Warehousing (150)

**Vehicle Trip Ends vs: 1000 Sq. Ft. GFA**

**On a: Weekday,**

**Peak Hour of Adjacent Street Traffic,**

**One Hour Between 4 and 6 p.m.**

**Setting/Location: General Urban/Suburban**

Number of Studies: 49

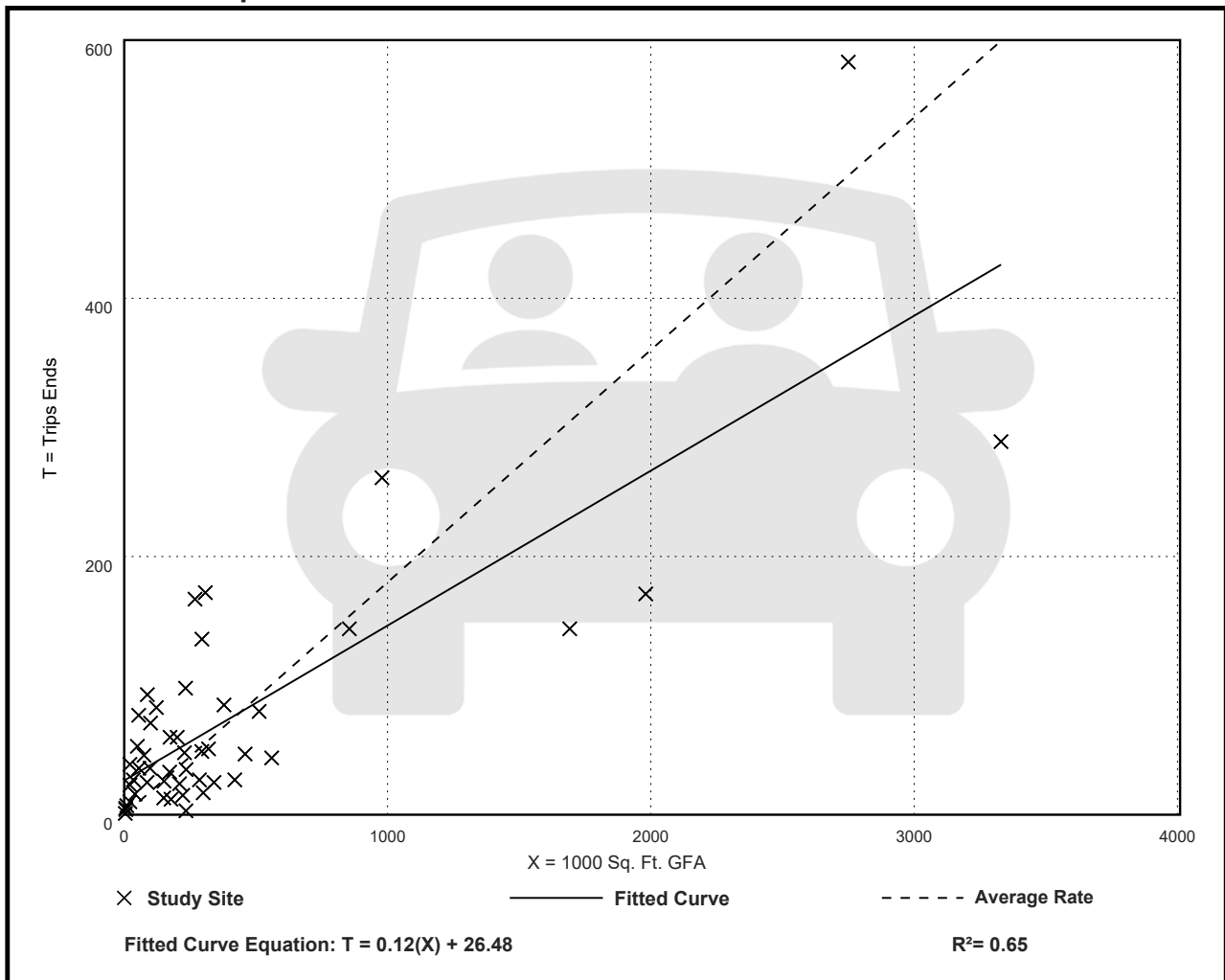
Avg. 1000 Sq. Ft. GFA: 400

Directional Distribution: 28% entering, 72% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.18	0.01 - 1.80	0.18

## Data Plot and Equation



## Level of Service Criteria

LEVEL OF SERVICE CRITERIA

<b>Signalized Intersections</b>		
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.	≤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.	>80.0
<b>Unsignalized Intersections</b>		
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*, 2010.

Capacity Analysis Summary Sheets  
Existing Weekday Morning Peak Hour Conditions



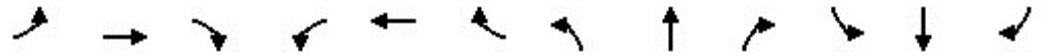
Lanes, Volumes, Timings  
1: Marshfield Avenue & 119th Street

04/21/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑					↓	↑↑↑	↑
Traffic Volume (vph)	0	417	194	156	444	0	0	0	0	193	163	254
Future Volume (vph)	0	417	194	156	444	0	0	0	0	193	163	254
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	10	12	12	12	12	12	12	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		170	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.86	0.81	0.86
Ped Bike Factor			0.99		1.00							
Frt			0.850									0.850
Flt Protected					0.987					0.950	0.982	
Satd. Flow (prot)	0	3498	1343	0	3292	0	0	0	0	1354	4050	1246
Flt Permitted					0.987					0.950	0.982	
Satd. Flow (perm)	0	3498	1325	0	3292	0	0	0	0	1354	4050	1246
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)			202									
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1292			290			593			671	
Travel Time (s)		29.4			6.6			13.5			15.3	
Confl. Peds. (#/hr)	5		1	1		5						
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	5%	10%	6%	9%	0%	0%	0%	0%	7%	3%	4%
Bus Blockages (#/hr)	0	0	5	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)										50%		0%
Lane Group Flow (vph)	0	434	202	0	626	0	0	0	0	100	271	265
Turn Type		NA	Perm	Split	NA					Split	NA	custom
Protected Phases		2	10 12 14	10 12 14						4	4	
Permitted Phases			2									4 2
Detector Phase		2	2 10 12 14	10 12 14						4	4	4 2
Switch Phase												
Minimum Initial (s)		4.0	4.0							4.0	4.0	
Minimum Split (s)		22.0	22.0							20.0	20.0	
Total Split (s)		50.0	50.0							25.0	25.0	
Total Split (%)		31.3%	31.3%							15.6%	15.6%	
Yellow Time (s)		4.5	4.5							4.5	4.5	
All-Red Time (s)		1.5	1.5							1.5	1.5	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Min	C-Min							None	None	
Act Effct Green (s)		44.8	44.8		68.0					17.8	17.8	68.6
Actuated g/C Ratio		0.28	0.28		0.42					0.11	0.11	0.43

Lanes, Volumes, Timings  
1: Marshfield Avenue & 119th Street

04/21/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.44	0.39		0.45					0.67	0.60	0.50
Control Delay		49.8	7.6		0.8					89.3	73.4	37.5
Queue Delay		0.0	0.0		0.4					0.0	0.0	0.0
Total Delay		49.8	7.6		1.3					89.3	73.4	37.5
LOS		D	A		A					F	E	D
Approach Delay		36.4			1.3						61.0	
Approach LOS		D			A						E	
Queue Length 50th (ft)		210	0		0					116	110	243
Queue Length 95th (ft)		255	67		0					197	151	338
Internal Link Dist (ft)		1212			210			513			591	
Turn Bay Length (ft)			170									
Base Capacity (vph)		1015	527		1389					163	489	540
Starvation Cap Reductn		0	0		337					0	0	0
Spillback Cap Reductn		0	0		0					0	0	0
Storage Cap Reductn		0	0		0					0	0	0
Reduced v/c Ratio		0.43	0.38		0.60					0.61	0.55	0.49

Intersection Summary

Area Type:	Other
Cycle Length:	160
Actuated Cycle Length:	160
Offset:	0 (0%), Referenced to phase 2:EBT, Start of 1st Green, Master Intersection
Natural Cycle:	105
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	33.1
Intersection LOS:	C
Intersection Capacity Utilization:	50.6%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 1: Marshfield Avenue & 119th Street

#1 #2 Ø14 50 s	#1 #2 Ø2 (R) 25 s	#2 Ø8 15 s	#1 #2 Ø10 33 s	#1 #2 Ø12 26 s	#1 11 s
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Lanes, Volumes, Timings  
2: Ashland Avenue & 119th Street

04/21/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	251	359	0	0	312	115	288	214	252	0	0	0
Future Volume (vph)	251	359	0	0	312	115	288	214	252	0	0	0
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	11	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	250		0	0		185	0		0	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00					0.98			0.99			
Fr <sub>t</sub>						0.850			0.850			
Fl <sub>t</sub> Protected	0.950						0.950	0.982				
Satd. Flow (prot)	1616	3532	0	0	3292	1531	1467	3214	1583	0	0	0
Fl <sub>t</sub> Permitted	0.950						0.950	0.982				
Satd. Flow (perm)	1614	3532	0	0	3292	1507	1467	3214	1561	0	0	0
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)						157			265			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		290			321			598				786
Travel Time (s)		6.6			7.3			13.6				17.9
Confl. Peds. (#/hr)	2		4	4		2			1	1		
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 (%)	8%	4%	0%	0%	6%	2%	12%	2%	2%	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 (%)							43%					
Lane Group Flow (vph)	264	378	0	0	328	121	173	355	265	0	0	0
Turn Type	Split	NA			NA	Perm	Split	NA	Perm			
Protected Phases	2 4 8	2 4 8			10		12	12				
Permitted Phases						10			12			
Detector Phase	2 4 8	2 4 8			10	10	12	12	12			
Switch Phase												
Minimum Initial (s)					4.0	4.0	4.0	4.0	4.0			
Minimum Split (s)					22.0	22.0	15.0	15.0	15.0			
Total Split (s)					33.0	33.0	26.0	26.0	26.0			
Total Split (%)					20.6%	20.6%	16.3%	16.3%	16.3%			
Yellow Time (s)					4.5	4.5	4.5	4.5	4.5			
All-Red Time (s)					1.5	1.5	1.5	1.5	1.5			
Lost Time Adjust (s)					0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)					6.0	6.0	6.0	6.0	6.0			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					None	None	None	None	None			
Act Effct Green (s)	80.0	80.0			28.0	28.0	23.2	23.2	23.2			
Actuated g/C Ratio	0.50	0.50			0.18	0.18	0.14	0.14	0.14			

Lanes, Volumes, Timings  
 2: Ashland Avenue & 119th Street

04/21/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.33	0.21			0.57	0.31	0.82	0.76	0.58			
Control Delay	1.8	0.5			64.6	4.9	93.2	76.9	12.4			
Queue Delay	0.4	0.2			0.0	0.0	0.0	0.0	0.0			
Total Delay	2.2	0.7			64.6	4.9	93.2	76.9	12.4			
LOS	A	A			E	A	F	E	B			
Approach Delay		1.3			48.5			58.9				
Approach LOS		A			D			E				
Queue Length 50th (ft)	8	1			166	0	192	195	0			
Queue Length 95th (ft)	14	1			221	26	#372	#298	92			
Internal Link Dist (ft)		210			241			518			706	
Turn Bay Length (ft)	250					185						
Base Capacity (vph)	827	1809			586	397	212	466	453			
Starvation Cap Reductn	239	777			0	0	0	0	0			
Spillback Cap Reductn	0	0			0	0	0	0	0			
Storage Cap Reductn	0	0			0	0	0	0	0			
Reduced v/c Ratio	0.45	0.37			0.56	0.30	0.82	0.76	0.58			

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of 1st Green, Master Intersection  
 Natural Cycle: 105  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.82  
 Intersection Signal Delay: 36.8 Intersection LOS: D  
 Intersection Capacity Utilization 47.1% ICU Level of Service A  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Ashland Avenue & 119th Street

#1 #2	#1 #2	#2	#1 #2	#1 #2	#1
Ø14	Ø2 (R)	Ø4	Ø8	Ø10	Ø12
50 s	25 s	15 s	33 s	26 s	11 s

Lanes, Volumes, Timings  
7: Morgan Street & 119th Street

04/21/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	82	410	16	2	262	67	13	0	1	105	0	100
Future Volume (vph)	82	410	16	2	262	67	13	0	1	105	0	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	15	15	15	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor								1.00			1.00	
Frt		0.996			0.973			0.991			0.934	
Flt Protected		0.992						0.955			0.975	
Satd. Flow (prot)	0	1697	0	0	1647	0	0	1975	0	0	1730	0
Flt Permitted		0.886			0.998			0.955			0.975	
Satd. Flow (perm)	0	1516	0	0	1644	0	0	1975	0	0	1729	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			15			85			85	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1772			1329			669			1012	
Travel Time (s)		40.3			30.2			15.2			23.0	
Confl. Peds. (#/hr)									1	1		
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%	4%	0%	0%	6%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	5	0	0	5	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	535	0	0	349	0	0	15	0	0	216	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	30.0	30.0		30.0	30.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		15.0	15.0		15.0	15.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		25.0	25.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%		33.3%	33.3%		27.8%	27.8%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Act Effct Green (s)		62.4			62.4			10.0			14.6	
Actuated g/C Ratio		0.69			0.69			0.11			0.16	

Lanes, Volumes, Timings  
7: Morgan Street & 119th Street

04/21/2023

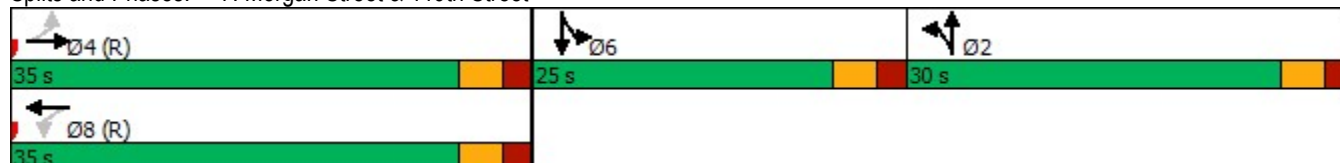


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.51			0.30			0.05				0.62
Control Delay		11.1			7.1			0.4				28.2
Queue Delay		0.0			0.0			0.0				0.0
Total Delay		11.1			7.1			0.4				28.2
LOS		B			A			A				C
Approach Delay		11.1			7.1			0.4				28.2
Approach LOS		B			A			A				C
Queue Length 50th (ft)		105			27			0				69
Queue Length 95th (ft)		350			191			0				132
Internal Link Dist (ft)		1692			1249			589				932
Turn Bay Length (ft)												
Base Capacity (vph)		1052			1145			610				450
Starvation Cap Reductn		0			0			0				0
Spillback Cap Reductn		0			0			0				0
Storage Cap Reductn		0			0			0				0
Reduced v/c Ratio		0.51			0.30			0.02				0.48

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	56 (62%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	13.0
Intersection LOS:	B
Intersection Capacity Utilization:	75.6%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 7: Morgan Street & 119th Street



Lanes, Volumes, Timings  
8: Halsted Street & 119th Street

04/21/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	124	192	61	42	181	67	68	642	41	45	283	80
Future Volume (vph)	124	192	61	42	181	67	68	642	41	45	283	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	9	9	9	9	11	11	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	135		0	60		0	115		0	115		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	200			95			110			95		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	1.00	1.00		1.00	0.99		1.00	1.00		1.00	0.99	
Frt		0.964			0.960			0.991			0.967	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1608	1514	0	1624	1417	0	1533	3132	0	1652	2863	0
Flt Permitted	0.479			0.567			0.456			0.254		
Satd. Flow (perm)	807	1514	0	968	1417	0	734	3132	0	440	2863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			24			7			41	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1329			4900			658			4523	
Travel Time (s)		30.2			111.4			15.0			102.8	
Confl. Peds. (#/hr)	8		3	3		8	2		5	5		2
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	8%	10%	0%	4%	3%	6%	5%	0%	2%	8%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)					0	0		0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	127	258	0	43	253	0	69	697	0	46	371	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	34.0		7.0	34.0		7.0	27.0		7.0	27.0	
Minimum Split (s)	10.0	38.0		10.0	38.0		10.0	32.0		10.0	32.0	
Total Split (s)	10.0	38.0		10.0	38.0		10.0	32.0		10.0	32.0	
Total Split (%)	11.1%	42.2%		11.1%	42.2%		11.1%	35.6%		11.1%	35.6%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	1.0		0.0	1.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	4.0		3.0	4.0		3.0	5.0		3.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Max		None	Max		None	C-Max		None	C-Max	
Act Effct Green (s)	43.2	38.0		42.0	34.0		37.2	31.0		36.6	29.0	
Actuated g/C Ratio	0.48	0.42		0.47	0.38		0.41	0.34		0.41	0.32	

Lanes, Volumes, Timings  
 8: Halsted Street & 119th Street

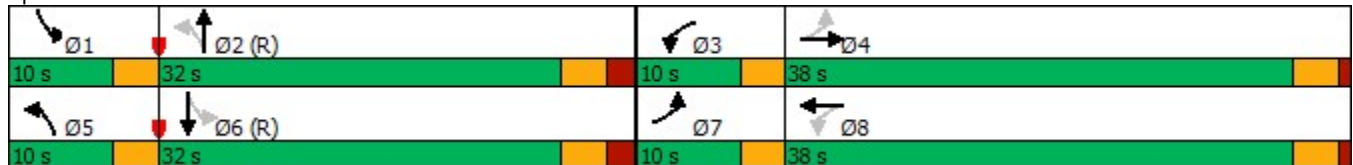
04/21/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.28	0.40		0.09	0.46		0.19	0.64		0.17	0.39	
Control Delay	16.5	21.8		12.1	22.3		16.6	29.0		16.5	23.1	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.5	21.8		12.1	22.3		16.6	29.0		16.5	23.1	
LOS	B	C		B	C		B	C		B	C	
Approach Delay		20.1			20.8			27.9			22.4	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	30	77		12	96		23	184		15	77	
Queue Length 95th (ft)	105	208		29	165		48	251		35	118	
Internal Link Dist (ft)		1249			4820			578			4443	
Turn Bay Length (ft)	135			60			115			115		
Base Capacity (vph)	449	650		502	550		365	1083		273	950	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.28	0.40		0.09	0.46		0.19	0.64		0.17	0.39	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.64
Intersection Signal Delay:	23.9
Intersection LOS:	C
Intersection Capacity Utilization	77.7%
ICU Level of Service	D
Analysis Period (min)	15



















Splits and Phases: 8: Halsted Street & 119th Street





Lanes, Volumes, Timings  
11: Halsted Street & 120th Street

04/21/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	1	16	18	9	32	30	710	18	19	364	3
Future Volume (vph)	9	1	16	18	9	32	30	710	18	19	364	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	9	10	10	9	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	95		0	95		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			110			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.99		1.00	1.00		1.00	1.00	
Frt		0.916			0.927			0.996			0.999	
Flt Protected		0.983			0.985		0.950			0.950		
Satd. Flow (prot)	0	1281	0	0	1471	0	1462	3066	0	1317	2989	0
Flt Permitted		0.915			0.919		0.515			0.290		
Satd. Flow (perm)	0	1190	0	0	1371	0	790	3066	0	401	2989	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		18			35			5				1
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1262			4327			5331				658
Travel Time (s)		28.7			98.3			121.2				15.0
Confl. Peds. (#/hr)	5		2	2		5	3		5	5		3
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 (%)	44%	0%	0%	0%	0%	3%	0%	4%	0%	11%	7%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	29	0	0	65	0	33	800	0	21	403	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	23.0	23.0		23.0	23.0		27.0	27.0		27.0	27.0	
Minimum Split (s)	31.0	31.0		31.0	31.0		34.0	34.0		34.0	34.0	
Total Split (s)	31.0	31.0		31.0	31.0		34.0	34.0		34.0	34.0	
Total Split (%)	47.7%	47.7%		47.7%	47.7%		52.3%	52.3%		52.3%	52.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	5.0	5.0		5.0	5.0		4.0	4.0		4.0	4.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		8.0			8.0		7.0	7.0		7.0	7.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		23.0			23.0		27.0	27.0		27.0	27.0	
Actuated g/C Ratio		0.35			0.35		0.42	0.42		0.42	0.42	

Lanes, Volumes, Timings  
 11: Halsted Street & 120th Street

04/21/2023

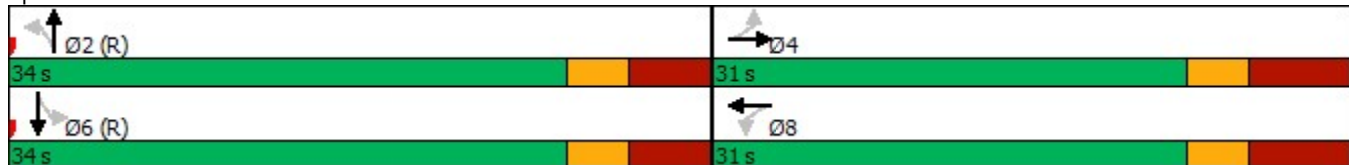


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.07			0.13		0.10	0.63		0.13	0.32	
Control Delay		9.2			9.0		12.7	17.6		14.2	13.7	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		9.2			9.0		12.7	17.6		14.2	13.7	
LOS		A			A		B	B		B	B	
Approach Delay		9.2			9.0			17.4			13.8	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		3			8		8	125		5	54	
Queue Length 95th (ft)		18			31		23	180		19	84	
Internal Link Dist (ft)		1182			4247			5251			578	
Turn Bay Length (ft)							95			95		
Base Capacity (vph)		432			507		328	1276		166	1242	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.07			0.13		0.10	0.63		0.13	0.32	

Intersection Summary

Area Type:	Other
Cycle Length:	65
Actuated Cycle Length:	65
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.63
Intersection Signal Delay:	15.7
Intersection LOS:	B
Intersection Capacity Utilization	56.6%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 11: Halsted Street & 120th Street



HCM 6th TWSC  
 3: MIFAB Access/CC Access Drive & 119th Street

04/21/2023

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	16	507	3	1	372	2	3	0	1	0	0	0
Future Vol, veh/h	16	507	3	1	372	2	3	0	1	0	0	0
Conflicting Peds, #/hr	4	0	0	0	0	4	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	6	3	0	0	6	0	0	0	0	0	0	0
Mvmt Flow	17	545	3	1	400	2	3	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	406	0	0	548	0	0	984	989	547
Stage 1	-	-	-	-	-	-	581	581	-
Stage 2	-	-	-	-	-	-	403	408	-
Critical Hdwy	4.16	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.254	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1131	-	-	1032	-	-	278	249	541
Stage 1	-	-	-	-	-	-	563	503	-
Stage 2	-	-	-	-	-	-	679	600	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1131	-	-	1032	-	-	272	0	541
Mov Cap-2 Maneuver	-	-	-	-	-	-	272	0	-
Stage 1	-	-	-	-	-	-	551	0	-
Stage 2	-	-	-	-	-	-	678	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.3	0	16.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	311	1131	-	-	1032	-	-
HCM Lane V/C Ratio	0.014	0.015	-	-	0.001	-	-
HCM Control Delay (s)	16.7	8.2	0	-	8.5	0	-
HCM Lane LOS	C	A	A	-	A	A	-
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-

HCM 6th TWSC  
10: 120th Street & Morgan Street

04/21/2023

Intersection						
Int Delay, s/veh	4.1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	0	0	3	13	8	7
Future Vol, veh/h	0	0	3	13	8	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	0	0	0	0	0	0
Mvmt Flow	0	0	4	19	11	10

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	23	0	-	0	14
Stage 1	-	-	-	-	14
Stage 2	-	-	-	-	0
Critical Hdwy	4.1	-	-	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	2.2	-	-	-	3.5
Pot Cap-1 Maneuver	1605	-	-	-	1010
Stage 1	-	-	-	-	1014
Stage 2	-	-	-	-	-
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1605	-	-	-	1010
Mov Cap-2 Maneuver	-	-	-	-	1010
Stage 1	-	-	-	-	1014
Stage 2	-	-	-	-	-













Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1605	-	-	-	1038
HCM Lane V/C Ratio	-	-	-	-	0.021
HCM Control Delay (s)	0	-	-	-	8.5
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Capacity Analysis Summary Sheets  
Existing Weekday Evening Peak Hour Conditions

Lanes, Volumes, Timings  
1: Marshfield Avenue & 119th Street

04/21/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑					↓	↑↑↑	↑
Traffic Volume (vph)	0	542	216	207	517	0	0	0	0	267	306	393
Future Volume (vph)	0	542	216	207	517	0	0	0	0	267	306	393
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	10	12	12	12	12	12	12	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		170	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.86	0.81	0.86
Ped Bike Factor			0.98		1.00							
Frt			0.850									0.850
Flt Protected					0.986					0.950	0.985	
Satd. Flow (prot)	0	3601	1407	0	3499	0	0	0	0	1449	4215	1283
Flt Permitted					0.986					0.950	0.985	
Satd. Flow (perm)	0	3601	1382	0	3498	0	0	0	0	1449	4215	1283
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)			177									
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1292			290			593			671	
Travel Time (s)		29.4			6.6			13.5			15.3	
Confl. Peds. (#/hr)	10		5	5		10						
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	5%	1%	2%	0%	0%	0%	0%	0%	1%	1%
Bus Blockages (#/hr)	0	0	5	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)										48%		0%
Lane Group Flow (vph)	0	553	220	0	739	0	0	0	0	141	443	401
Turn Type		NA	Perm	Split	NA					Split	NA	custom
Protected Phases		2		10 12 14	10 12 14					4	4	
Permitted Phases			2									4 2
Detector Phase		2		2 10 12 14	10 12 14					4	4	4 2
Switch Phase												
Minimum Initial (s)		4.0	4.0							4.0	4.0	
Minimum Split (s)		22.0	22.0							20.0	20.0	
Total Split (s)		46.0	46.0							28.0	28.0	
Total Split (%)		28.8%	28.8%							17.5%	17.5%	
Yellow Time (s)		4.5	4.5							4.5	4.5	
All-Red Time (s)		1.5	1.5							1.5	1.5	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Min	C-Min							None	None	
Act Effct Green (s)		41.1	41.1		65.8					21.8	21.8	68.9
Actuated g/C Ratio		0.26	0.26		0.41					0.14	0.14	0.43

Lanes, Volumes, Timings  
1: Marshfield Avenue & 119th Street

04/21/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.60	0.45		0.51					0.72	0.77	0.73
Control Delay		55.7	14.7		0.8					86.5	76.7	47.2
Queue Delay		0.0	0.0		0.7					0.0	0.0	0.0
Total Delay		55.7	14.7		1.5					86.5	76.7	47.2
LOS		E	B		A					F	E	D
Approach Delay		44.0			1.5						66.1	
Approach LOS		D			A						E	
Queue Length 50th (ft)		272	35		0					166	186	405
Queue Length 95th (ft)		338	117		m0					#280	236	570
Internal Link Dist (ft)		1212			210			513			591	
Turn Bay Length (ft)			170									
Base Capacity (vph)		925	486		1417					199	579	554
Starvation Cap Reductn		0	0		345					0	0	0
Spillback Cap Reductn		0	0		0					0	0	0
Storage Cap Reductn		0	0		0					0	0	0
Reduced v/c Ratio		0.60	0.45		0.69					0.71	0.77	0.72

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of 1st Green, Master Intersection  
 Natural Cycle: 105  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 40.2      Intersection LOS: D  
 Intersection Capacity Utilization 60.2%      ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Marshfield Avenue & 119th Street

#1 #2 Ø14 46 s	#1 #2 Ø2 (R) 28 s	#2 Ø8 16 s	#1 #2 Ø10 33 s	#1 #2 Ø12 26 s	#1 11 s
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Lanes, Volumes, Timings  
2: Ashland Avenue & 119th Street

04/21/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	394	415	0	0	410	138	314	180	175	0	0	0
Future Volume (vph)	394	415	0	0	410	138	314	180	175	0	0	0
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	11	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	250		0	0		185	0		0	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00					0.98	1.00	1.00	0.99			
Fr <sub>t</sub>						0.850			0.850			
Fl <sub>t</sub> Protected	0.950						0.950	0.978				
Satd. Flow (prot)	1711	3637	0	0	3455	1516	1579	3321	1599	0	0	0
Fl <sub>t</sub> Permitted	0.950						0.950	0.978				
Satd. Flow (perm)	1708	3637	0	0	3455	1484	1576	3318	1576	0	0	0
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)						157			188			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		290			321			598				786
Travel Time (s)		6.6			7.3			13.6				17.9
Confl. Peds. (#/hr)	5		4	4		5	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	1%	0%	0%	1%	3%	4%	0%	1%	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 (%)							48%					
Lane Group Flow (vph)	424	446	0	0	441	148	176	356	188	0	0	0
Turn Type	Split	NA			NA	Perm	Split	NA	Perm			
Protected Phases	2 4 8	2 4 8			10		12	12				
Permitted Phases						10			12			
Detector Phase	2 4 8	2 4 8			10	10	12	12	12			
Switch Phase												
Minimum Initial (s)					4.0	4.0	4.0	4.0	4.0			
Minimum Split (s)					22.0	22.0	15.0	15.0	15.0			
Total Split (s)					33.0	33.0	26.0	26.0	26.0			
Total Split (%)					20.6%	20.6%	16.3%	16.3%	16.3%			
Yellow Time (s)					4.5	4.5	4.5	4.5	4.5			
All-Red Time (s)					1.5	1.5	1.5	1.5	1.5			
Lost Time Adjust (s)					0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)					6.0	6.0	6.0	6.0	6.0			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					None	None	None	None	None			
Act Effct Green (s)	82.2	82.2			28.9	28.9	20.0	20.0	20.0			
Actuated g/C Ratio	0.51	0.51			0.18	0.18	0.12	0.12	0.12			



Lanes, Volumes, Timings  
 2: Ashland Avenue & 119th Street

04/21/2023

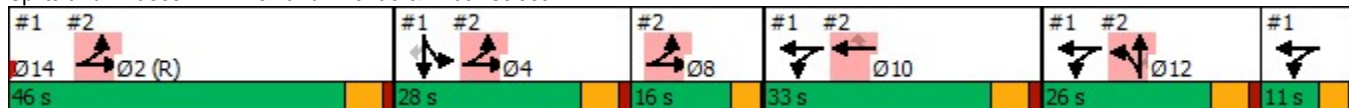


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.48	0.24			0.71	0.37	0.89	0.86	0.52			
Control Delay	4.2	1.1			68.6	9.3	109.1	88.3	13.3			
Queue Delay	1.3	0.4			0.0	0.0	0.0	0.0	0.0			
Total Delay	5.5	1.5			68.6	9.3	109.1	88.3	13.3			
LOS	A	A			E	A	F	F	B			
Approach Delay		3.4			53.7			73.8				
Approach LOS		A			D			E				
Queue Length 50th (ft)	34	5			230	0	202	203	0			
Queue Length 95th (ft)	21	5			298	57	#364	#292	78			
Internal Link Dist (ft)		210			241			518			706	
Turn Bay Length (ft)	250					185						
Base Capacity (vph)	897	1907			624	396	198	417	362			
Starvation Cap Reductn	275	967			0	0	0	0	0			
Spillback Cap Reductn	0	0			0	0	0	0	0			
Storage Cap Reductn	0	0			0	0	0	0	0			
Reduced v/c Ratio	0.68	0.47			0.71	0.37	0.89	0.85	0.52			

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of 1st Green, Master Intersection  
 Natural Cycle: 105  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.89  
 Intersection Signal Delay: 40.3  
 Intersection LOS: D  
 Intersection Capacity Utilization 63.5%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Ashland Avenue & 119th Street



Lanes, Volumes, Timings  
7: Morgan Street & 119th Street

04/21/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	141	337	12	0	342	105	8	0	0	209	0	219
Future Volume (vph)	141	337	12	0	342	105	8	0	0	209	0	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	15	15	15	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00										
Frt		0.997			0.968							0.931
Flt Protected		0.986						0.950				0.976
Satd. Flow (prot)	0	1727	0	0	1704	0	0	1986	0	0	1726	0
Flt Permitted		0.621						0.950				0.976
Satd. Flow (perm)	0	1088	0	0	1704	0	0	1986	0	0	1726	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			18							85
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1772			1329			669				1012
Travel Time (s)		40.3			30.2			15.2				23.0
Confl. Peds. (#/hr)			2	2								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	8%	0%	1%	0%	0%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	5	0	0	5	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	563	0	0	514	0	0	9	0	0	492	0
Turn Type	Perm	NA			NA		Split	NA		Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	30.0	30.0		30.0	30.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		15.0	15.0		15.0	15.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		25.0	25.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%		33.3%	33.3%		27.8%	27.8%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Act Effct Green (s)		57.0			57.0			10.0			20.0	
Actuated g/C Ratio		0.63			0.63			0.11			0.22	

Lanes, Volumes, Timings  
7: Morgan Street & 119th Street

04/21/2023

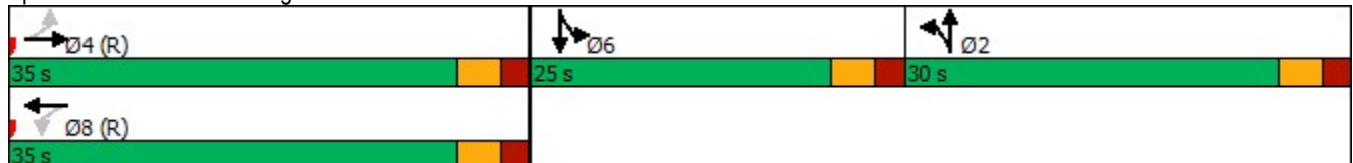


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.82			0.47			0.04				1.10
Control Delay		26.5			9.5			36.4				100.5
Queue Delay		0.0			0.0			0.0				0.0
Total Delay		26.5			9.5			36.4				100.5
LOS		C			A			D				F
Approach Delay		26.5			9.5			36.4				100.5
Approach LOS		C			A			D				F
Queue Length 50th (ft)		194			90			5				~279
Queue Length 95th (ft)		#521			m297			18				#447
Internal Link Dist (ft)		1692			1249			589				932
Turn Bay Length (ft)												
Base Capacity (vph)		690			1086			551				449
Starvation Cap Reductn		0			0			0				0
Spillback Cap Reductn		0			0			0				0
Storage Cap Reductn		0			0			0				0
Reduced v/c Ratio		0.82			0.47			0.02				1.10

Intersection Summary

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 56 (62%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green  
 Natural Cycle: 130  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.10  
 Intersection Signal Delay: 44.1      Intersection LOS: D  
 Intersection Capacity Utilization 86.1%      ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Morgan Street & 119th Street



Lanes, Volumes, Timings  
8: Halsted Street & 119th Street

04/21/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	135	258	110	60	214	56	132	494	57	100	624	126
Future Volume (vph)	135	258	110	60	214	56	132	494	57	100	624	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	9	9	9	9	11	11	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	135		0	60		0	115		0	115		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	200			95			110			95		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	1.00	0.99		0.99	1.00		0.99	1.00		0.99	0.99	
Frt		0.955			0.969			0.984			0.975	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1608	1608	0	1624	1474	0	1608	3219	0	1685	3084	0
Flt Permitted	0.459			0.387			0.156			0.330		
Satd. Flow (perm)	774	1608	0	657	1474	0	262	3219	0	581	3084	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			17			14			27	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1329			4900			658			4523	
Travel Time (s)		30.2			111.4			15.0			102.8	
Confl. Peds. (#/hr)	8		18	18		8	16		11	11		16
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 (%)	1%	1%	0%	0%	1%	0%	1%	1%	0%	0%	0%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)					0	0		0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	142	388	0	63	284	0	139	580	0	105	790	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	34.0		7.0	34.0		7.0	27.0		7.0	27.0	
Minimum Split (s)	10.0	38.0		10.0	38.0		10.0	32.0		10.0	32.0	
Total Split (s)	10.0	38.0		10.0	38.0		10.0	32.0		10.0	32.0	
Total Split (%)	11.1%	42.2%		11.1%	42.2%		11.1%	35.6%		11.1%	35.6%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	1.0		0.0	1.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	4.0		3.0	4.0		3.0	5.0		3.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Max		None	Max		None	C-Max		None	C-Max	
Act Effct Green (s)	42.6	36.0		42.0	34.0		36.6	29.0		36.0	27.0	
Actuated g/C Ratio	0.47	0.40		0.47	0.38		0.41	0.32		0.40	0.30	

Lanes, Volumes, Timings  
 8: Halsted Street & 119th Street

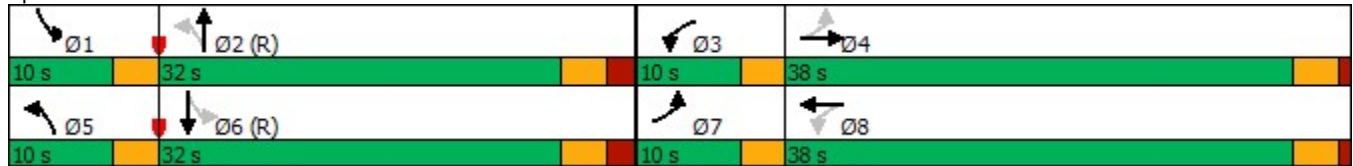
04/21/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.33	0.59		0.17	0.50		0.66	0.55		0.33	0.84	
Control Delay	14.5	23.1		12.9	23.9		33.2	27.7		18.6	37.9	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	14.5	23.1		12.9	23.9		33.2	27.7		18.6	37.9	
LOS	B	C		B	C		C	C		B	D	
Approach Delay		20.8			21.9			28.8			35.6	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	33	160		18	114		48	143		35	213	
Queue Length 95th (ft)	m56	m236		39	190		#104	198		67	#310	
Internal Link Dist (ft)		1249			4820			578			4443	
Turn Bay Length (ft)	135			60			115			115		
Base Capacity (vph)	431	659		381	567		211	1046		318	944	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.33	0.59		0.17	0.50		0.66	0.55		0.33	0.84	

Intersection Summary



















Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 28.6 Intersection LOS: C  
 Intersection Capacity Utilization 79.8% 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.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Halsted Street & 119th Street



Lanes, Volumes, Timings  
11: Halsted Street & 120th Street

04/21/2023

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	8	8	31	28	14	17	22	658	31	26	765	3
Future Volume (vph)	8	8	31	28	14	17	22	658	31	26	765	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	9	10	10	9	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	95		0	95		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			110			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.99		0.99	1.00		1.00	1.00	
Frt		0.910			0.961			0.993			0.999	
Flt Protected		0.992			0.977		0.950			0.950		
Satd. Flow (prot)	0	1478	0	0	1545	0	1624	3310	0	1624	3365	0
Flt Permitted		0.958			0.864		0.290			0.336		
Satd. Flow (perm)	0	1426	0	0	1365	0	492	3310	0	573	3365	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		32			18			9				1
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1262			4327			5331				658
Travel Time (s)		28.7			98.3			121.2				15.0
Confl. Peds. (#/hr)	3		2	2		3	15		3	3		15
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0	0	0	0	0	0						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	48	0	0	62	0	23	717	0	27	800	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	23.0	23.0		23.0	23.0		27.0	27.0		27.0	27.0	
Minimum Split (s)	31.0	31.0		31.0	31.0		34.0	34.0		34.0	34.0	
Total Split (s)	31.0	31.0		31.0	31.0		34.0	34.0		34.0	34.0	
Total Split (%)	47.7%	47.7%		47.7%	47.7%		52.3%	52.3%		52.3%	52.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	5.0	5.0		5.0	5.0		4.0	4.0		4.0	4.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		8.0			8.0		7.0	7.0		7.0	7.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		23.0			23.0		27.0	27.0		27.0	27.0	
Actuated g/C Ratio		0.35			0.35		0.42	0.42		0.42	0.42	

Lanes, Volumes, Timings  
 11: Halsted Street & 120th Street

04/21/2023

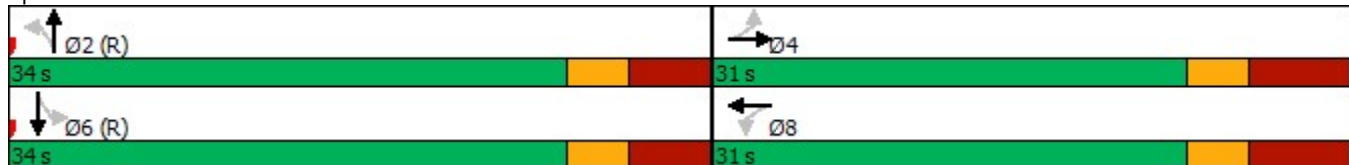


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.09			0.13		0.11	0.52		0.11	0.57	
Control Delay		8.1			11.8		13.5	15.6		13.3	16.6	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		8.1			11.8		13.5	15.6		13.3	16.6	
LOS		A			B		B	B		B	B	
Approach Delay		8.1			11.8			15.6			16.5	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)		4			11		5	105		6	122	
Queue Length 95th (ft)		23			34		19	152		21	173	
Internal Link Dist (ft)		1182			4247			5251			578	
Turn Bay Length (ft)							95			95		
Base Capacity (vph)		525			494		204	1380		238	1398	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.09			0.13		0.11	0.52		0.11	0.57	

Intersection Summary

Area Type:	Other
Cycle Length:	65
Actuated Cycle Length:	65
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.57
Intersection Signal Delay:	15.7
Intersection LOS:	B
Intersection Capacity Utilization	54.2%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 11: Halsted Street & 120th Street



HCM 6th TWSC  
 3: MIFAB Access/CC Access Drive & 119th Street

04/21/2023

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	20	490	1	0	567	2	1	0	0	0	0	0
Future Vol, veh/h	20	490	1	0	567	2	1	0	0	0	0	0
Conflicting Peds, #/hr	1	0	2	2	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	1	100	0	1	0	0	0	0	0	0	0
Mvmt Flow	24	576	1	0	667	2	1	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	670	0	0	579	0	0	1295	1297	579
Stage 1	-	-	-	-	-	-	627	627	-
Stage 2	-	-	-	-	-	-	668	670	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	930	-	-	1005	-	-	181	163	519
Stage 1	-	-	-	-	-	-	536	479	-
Stage 2	-	-	-	-	-	-	513	459	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	930	-	-	1003	-	-	174	0	518
Mov Cap-2 Maneuver	-	-	-	-	-	-	174	0	-
Stage 1	-	-	-	-	-	-	515	0	-
Stage 2	-	-	-	-	-	-	513	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.4	0	25.8
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	174	930	-	-	1003	-	-
HCM Lane V/C Ratio	0.007	0.025	-	-	-	-	-
HCM Control Delay (s)	25.8	9	0	-	0	-	-
HCM Lane LOS	D	A	A	-	A	-	-
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-



HCM 6th TWSC  
10: 120th Street & Morgan Street

04/21/2023

Intersection						
Int Delay, s/veh	4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	0	2	2	10	11	1
Future Vol, veh/h	0	2	2	10	11	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	0	0	0	0	9	0
Mvmt Flow	0	4	4	19	20	2

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	23	0	-	0	18
Stage 1	-	-	-	-	14
Stage 2	-	-	-	-	4
Critical Hdwy	4.1	-	-	-	6.49
Critical Hdwy Stg 1	-	-	-	-	5.49
Critical Hdwy Stg 2	-	-	-	-	5.49
Follow-up Hdwy	2.2	-	-	-	3.581
Pot Cap-1 Maneuver	1605	-	-	-	982
Stage 1	-	-	-	-	991
Stage 2	-	-	-	-	1001
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1605	-	-	-	982
Mov Cap-2 Maneuver	-	-	-	-	982
Stage 1	-	-	-	-	991
Stage 2	-	-	-	-	1001

Approach	EB	WB	SB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1605	-	-	-	989
HCM Lane V/C Ratio	-	-	-	-	0.022
HCM Control Delay (s)	0	-	-	-	8.7
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Capacity Analysis Summary Sheets  
Projected Weekday Morning Peak Hour Conditions

Lanes, Volumes, Timings  
1: Marshfield Avenue & 119th Street

04/21/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑					↓	↑↑↑	↑
Traffic Volume (vph)	0	441	200	167	459	0	0	0	0	212	168	262
Future Volume (vph)	0	441	200	167	459	0	0	0	0	212	168	262
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	10	12	12	12	12	12	12	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		170	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.86	0.81	0.86
Ped Bike Factor			0.99		1.00							
Frt			0.850									0.850
Flt Protected					0.987					0.950	0.981	
Satd. Flow (prot)	0	3498	1343	0	3277	0	0	0	0	1354	4043	1246
Flt Permitted					0.987					0.950	0.981	
Satd. Flow (perm)	0	3498	1325	0	3277	0	0	0	0	1354	4043	1246
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)			208									
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1292			290			593			671	
Travel Time (s)		29.4			6.6			13.5			15.3	
Confl. Peds. (#/hr)	6		1	1		6						
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	5%	10%	8%	9%	0%	0%	0%	0%	7%	3%	4%
Bus Blockages (#/hr)	0	0	5	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)										50%		0%
Lane Group Flow (vph)	0	459	208	0	652	0	0	0	0	110	286	273
Turn Type		NA	Perm	Split	NA					Split	NA	custom
Protected Phases		2	10 12 14	10 12 14						4	4	
Permitted Phases			2									4 2
Detector Phase		2	2 10 12 14	10 12 14						4	4	4 2
Switch Phase												
Minimum Initial (s)		4.0	4.0							4.0	4.0	
Minimum Split (s)		22.0	22.0							20.0	20.0	
Total Split (s)		50.0	50.0							25.0	25.0	
Total Split (%)		31.3%	31.3%							15.6%	15.6%	
Yellow Time (s)		4.5	4.5							4.5	4.5	
All-Red Time (s)		1.5	1.5							1.5	1.5	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Min	C-Min							None	None	
Act Effct Green (s)		43.1	43.1		68.6					18.8	18.8	67.9
Actuated g/C Ratio		0.27	0.27		0.43					0.12	0.12	0.42

Lanes, Volumes, Timings  
 1: Marshfield Avenue & 119th Street

04/21/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.49	0.41		0.46					0.69	0.60	0.52
Control Delay		51.5	7.8		0.9					89.9	72.6	38.2
Queue Delay		0.0	0.0		0.4					0.0	0.0	0.0
Total Delay		51.5	7.8		1.3					89.9	72.6	38.2
LOS		D	A		A					F	E	D
Approach Delay		37.9			1.3						61.4	
Approach LOS		D			A						E	
Queue Length 50th (ft)		223	0		0					126	115	244
Queue Length 95th (ft)		270	68		0					#233	160	350
Internal Link Dist (ft)		1212			210			513			591	
Turn Bay Length (ft)			170									
Base Capacity (vph)		990	524		1390					167	501	535
Starvation Cap Reductn		0	0		323					0	0	0
Spillback Cap Reductn		0	0		0					0	0	0
Storage Cap Reductn		0	0		0					0	0	0
Reduced v/c Ratio		0.46	0.40		0.61					0.66	0.57	0.51

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of 1st Green, Master Intersection  
 Natural Cycle: 105  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 33.8  
 Intersection LOS: C  
 Intersection Capacity Utilization 52.2%  
 ICU Level of Service A  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 1: Marshfield Avenue & 119th Street

#1 #2 Ø14 50 s	#1 #2 Ø2 (R) 25 s	#2 Ø8 15 s	#1 #2 Ø10 33 s	#1 #2 Ø12 26 s	#1 11 s
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Lanes, Volumes, Timings  
2: Ashland Avenue & 119th Street

04/21/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	259	394	0	0	329	124	297	220	275	0	0	0
Future Volume (vph)	259	394	0	0	329	124	297	220	275	0	0	0
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	11	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	250		0	0		185	0		0	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00						0.98		0.99			
Fr <sub>t</sub>						0.850			0.850			
Fl <sub>t</sub> Protected	0.950						0.950	0.982				
Satd. Flow (prot)	1616	3532	0	0	3261	1487	1467	3213	1583	0	0	0
Fl <sub>t</sub> Permitted	0.950						0.950	0.982				
Satd. Flow (perm)	1614	3532	0	0	3261	1464	1467	3213	1561	0	0	0
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)						157			289			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		290			321			598			786	
Travel Time (s)		6.6			7.3			13.6			17.9	
Confl. Peds. (#/hr)	2		4	4		2			1	1		
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 (%)	8%	4%	0%	0%	7%	5%	12%	2%	2%	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 (%)							43%					
Lane Group Flow (vph)	273	415	0	0	346	131	178	367	289	0	0	0
Turn Type	Split	NA			NA	Perm	Split	NA	Perm			
Protected Phases	2 4 8	2 4 8			10		12	12				
Permitted Phases						10			12			
Detector Phase	2 4 8	2 4 8			10	10	12	12	12			
Switch Phase												
Minimum Initial (s)					4.0	4.0	4.0	4.0	4.0			
Minimum Split (s)					22.0	22.0	15.0	15.0	15.0			
Total Split (s)					33.0	33.0	26.0	26.0	26.0			
Total Split (%)					20.6%	20.6%	16.3%	16.3%	16.3%			
Yellow Time (s)					4.5	4.5	4.5	4.5	4.5			
All-Red Time (s)					1.5	1.5	1.5	1.5	1.5			
Lost Time Adjust (s)					0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)					6.0	6.0	6.0	6.0	6.0			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					None	None	None	None	None			
Act Effct Green (s)	79.4	79.4			28.5	28.5	23.2	23.2	23.2			
Actuated g/C Ratio	0.50	0.50			0.18	0.18	0.14	0.14	0.14			

Lanes, Volumes, Timings  
 2: Ashland Avenue & 119th Street

04/21/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.34	0.24			0.60	0.34	0.84	0.79	0.61			
Control Delay	1.7	0.5			65.0	6.3	97.0	78.9	12.4			
Queue Delay	0.6	0.3			0.0	0.0	0.0	0.0	0.0			
Total Delay	2.3	0.8			65.0	6.3	97.0	78.9	12.4			
LOS	A	A			E	A	F	E	B			
Approach Delay		1.4			48.8			59.7				
Approach LOS		A			D			E				
Queue Length 50th (ft)	5	1			173	0	206	210	0			
Queue Length 95th (ft)	10	1			234	37	#386	#313	96			
Internal Link Dist (ft)		210			241			518			706	
Turn Bay Length (ft)	250					185						
Base Capacity (vph)	821	1795			589	393	212	465	473			
Starvation Cap Reductn	254	776			0	0	0	0	0			
Spillback Cap Reductn	0	0			0	0	0	0	0			
Storage Cap Reductn	0	0			0	0	0	0	0			
Reduced v/c Ratio	0.48	0.41			0.59	0.33	0.84	0.79	0.61			

Intersection Summary

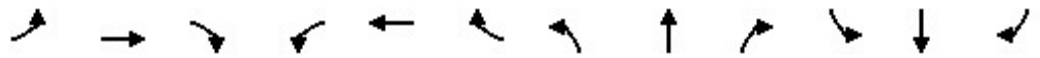
Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of 1st Green, Master Intersection  
 Natural Cycle: 105  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.84  
 Intersection Signal Delay: 37.0 Intersection LOS: D  
 Intersection Capacity Utilization 48.3% ICU Level of Service A  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Ashland Avenue & 119th Street

#1 #2 Ø14 50 s	#1 #2 Ø2 (R) 25 s	#2 Ø8 15 s	#1 #2 Ø10 33 s	#1 #2 Ø12 26 s	#1 11 s
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Lanes, Volumes, Timings  
7: Morgan Street & 119th Street

04/21/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	82	423	20	2	278	67	21	0	1	105	0	100
Future Volume (vph)	82	423	20	2	278	67	21	0	1	105	0	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	15	15	15	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor								1.00			1.00	
Frt		0.995			0.974			0.994			0.934	
Flt Protected		0.992						0.954			0.975	
Satd. Flow (prot)	0	1683	0	0	1648	0	0	1452	0	0	1730	0
Flt Permitted		0.886			0.998			0.954			0.975	
Satd. Flow (perm)	0	1503	0	0	1645	0	0	1452	0	0	1729	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			14			85			85	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		97			1329			526			1012	
Travel Time (s)		2.2			30.2			12.0			23.0	
Confl. Peds. (#/hr)									1	1		
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%	4%	20%	0%	6%	0%	38%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	5	0	0	5	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	552	0	0	366	0	0	23	0	0	216	0
Turn Type	Perm	NA		Perm	NA		Split	NA		Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	30.0	30.0		30.0	30.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		15.0	15.0		15.0	15.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		25.0	25.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%		33.3%	33.3%		27.8%	27.8%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Act Effct Green (s)		59.4			59.4			10.0			14.6	
Actuated g/C Ratio		0.66			0.66			0.11			0.16	

Lanes, Volumes, Timings  
7: Morgan Street & 119th Street

04/21/2023

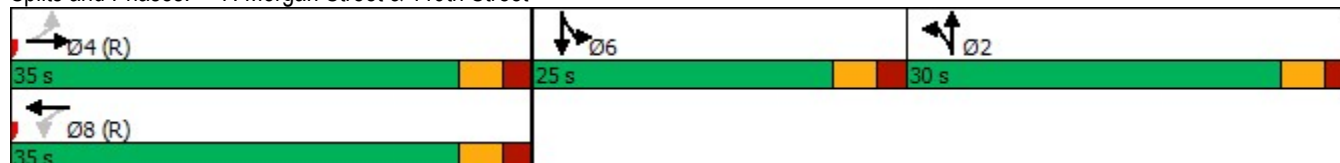


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.56			0.34			0.10				0.62
Control Delay		14.0			9.2			0.8				28.2
Queue Delay		0.0			0.0			0.0				0.0
Total Delay		14.0			9.2			0.8				28.2
LOS		B			A			A				C
Approach Delay		14.0			9.2			0.8				28.2
Approach LOS		B			A			A				C
Queue Length 50th (ft)		110			29			0				69
Queue Length 95th (ft)		370			206			0				132
Internal Link Dist (ft)		17			1249			446				932
Turn Bay Length (ft)												
Base Capacity (vph)		993			1091			464				450
Starvation Cap Reductn		0			0			0				0
Spillback Cap Reductn		0			0			0				0
Storage Cap Reductn		0			0			0				0
Reduced v/c Ratio		0.56			0.34			0.05				0.48

Intersection Summary

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 56 (62%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.62  
 Intersection Signal Delay: 14.9  
 Intersection Capacity Utilization 76.4%  
 Analysis Period (min) 15  
 Intersection LOS: B  
 ICU Level of Service D

Splits and Phases: 7: Morgan Street & 119th Street





Lanes, Volumes, Timings  
8: Halsted Street & 119th Street

04/21/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	129	198	63	43	189	69	70	662	42	46	292	87
Future Volume (vph)	129	198	63	43	189	69	70	662	42	46	292	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	9	9	9	9	11	11	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	135		0	60		0	115		0	115		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	200			95			110			95		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	0.99	1.00		1.00	0.99		1.00	1.00		1.00	0.99	
Frt		0.964			0.960			0.991			0.966	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1608	1514	0	1624	1417	0	1533	3132	0	1652	2839	0
Flt Permitted	0.468			0.558			0.442			0.240		
Satd. Flow (perm)	788	1514	0	953	1417	0	712	3132	0	416	2839	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			23			7			44	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1329			4900			658			4523	
Travel Time (s)		30.2			111.4			15.0			102.8	
Confl. Peds. (#/hr)	9		3	3		9	2		6	6		2
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	8%	10%	0%	4%	3%	6%	5%	0%	2%	9%	6%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)					0	0		0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	132	266	0	44	263	0	71	719	0	47	387	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	34.0		7.0	34.0		7.0	27.0		7.0	27.0	
Minimum Split (s)	10.0	38.0		10.0	38.0		10.0	32.0		10.0	32.0	
Total Split (s)	10.0	38.0		10.0	38.0		10.0	32.0		10.0	32.0	
Total Split (%)	11.1%	42.2%		11.1%	42.2%		11.1%	35.6%		11.1%	35.6%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	1.0		0.0	1.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	4.0		3.0	4.0		3.0	5.0		3.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Max		None	Max		None	C-Max		None	C-Max	
Act Effct Green (s)	43.2	38.0		42.0	34.0		37.2	31.0		36.6	29.0	
Actuated g/C Ratio	0.48	0.42		0.47	0.38		0.41	0.34		0.41	0.32	

Lanes, Volumes, Timings  
 8: Halsted Street & 119th Street

04/21/2023

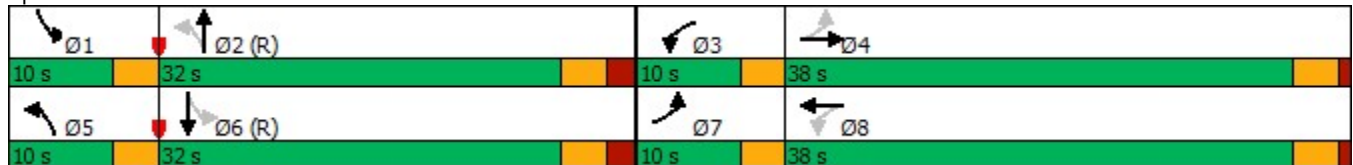


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.30	0.41		0.09	0.48		0.20	0.66		0.18	0.41	
Control Delay	19.4	25.6		12.2	22.9		16.8	29.5		16.6	23.3	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	19.4	25.6		12.2	22.9		16.8	29.5		16.6	23.3	
LOS	B	C		B	C		B	C		B	C	
Approach Delay		23.6			21.3			28.4			22.6	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	32	80		12	101		23	192		15	81	
Queue Length 95th (ft)	109	213		30	174		49	260		35	124	
Internal Link Dist (ft)		1249			4820			578			4443	
Turn Bay Length (ft)	135			60			115			115		
Base Capacity (vph)	441	650		496	549		358	1083		265	944	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.30	0.41		0.09	0.48		0.20	0.66		0.18	0.41	

Intersection Summary

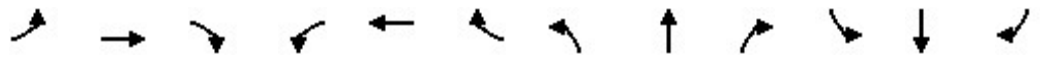
Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	24.9
Intersection LOS:	C
Intersection Capacity Utilization	78.0%
ICU Level of Service	D
Analysis Period (min)	15

Splits and Phases: 8: Halsted Street & 119th Street



Lanes, Volumes, Timings  
11: Halsted Street & 120th Street

04/21/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕↔		↕	↕↔	
Traffic Volume (vph)	10	1	18	18	9	32	42	732	18	19	375	4
Future Volume (vph)	10	1	18	18	9	32	42	732	18	19	375	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	9	10	10	9	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	95		0	95		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			110			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.99		1.00	1.00		1.00	1.00	
Frt		0.916			0.927			0.996			0.999	
Flt Protected		0.983			0.985		0.950			0.950		
Satd. Flow (prot)	0	1220	0	0	1470	0	1593	3227	0	1464	3140	0
Flt Permitted		0.914			0.918		0.508			0.277		
Satd. Flow (perm)	0	1131	0	0	1369	0	849	3227	0	425	3140	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		20			35			5				2
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1262			4327			5331				658
Travel Time (s)		28.7			98.3			121.2				15.0
Confl. Peds. (#/hr)	6		2	2		6	3		6	6		3
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 (%)	50%	0%	6%	0%	0%	3%	2%	4%	0%	11%	7%	25%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0	0	0	0	0	0						
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	32	0	0	65	0	46	824	0	21	416	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	23.0	23.0		23.0	23.0		27.0	27.0		27.0	27.0	
Minimum Split (s)	31.0	31.0		31.0	31.0		34.0	34.0		34.0	34.0	
Total Split (s)	31.0	31.0		31.0	31.0		34.0	34.0		34.0	34.0	
Total Split (%)	47.7%	47.7%		47.7%	47.7%		52.3%	52.3%		52.3%	52.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	5.0	5.0		5.0	5.0		4.0	4.0		4.0	4.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		8.0			8.0		7.0	7.0		7.0	7.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		23.0			23.0		27.0	27.0		27.0	27.0	
Actuated g/C Ratio		0.35			0.35		0.42	0.42		0.42	0.42	

Lanes, Volumes, Timings  
 11: Halsted Street & 120th Street

04/21/2023

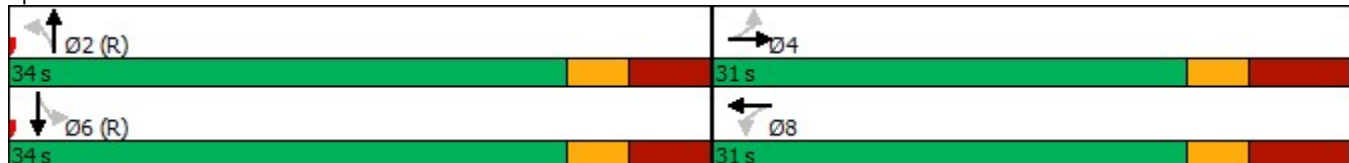


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.08			0.13		0.13	0.61		0.12	0.32	
Control Delay		9.1			9.0		13.0	17.3		13.9	13.6	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		9.1			9.0		13.0	17.3		13.9	13.6	
LOS		A			A		B	B		B	B	
Approach Delay		9.1			9.0			17.0			13.6	
Approach LOS		A			A			B			B	
Queue Length 50th (ft)		3			8		11	128		5	55	
Queue Length 95th (ft)		19			31		30	183		18	86	
Internal Link Dist (ft)		1182			4247			5251			578	
Turn Bay Length (ft)							95			95		
Base Capacity (vph)		413			507		352	1343		176	1305	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.08			0.13		0.13	0.61		0.12	0.32	

Intersection Summary

Area Type:	Other
Cycle Length:	65
Actuated Cycle Length:	65
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green	
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.61
Intersection Signal Delay:	15.4
Intersection LOS:	B
Intersection Capacity Utilization	66.6%
ICU Level of Service	C
Analysis Period (min)	15

Splits and Phases: 11: Halsted Street & 120th Street



HCM 6th TWSC  
 3: MIFAB Access/CC Access Drive & 119th Street

04/21/2023

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	16	558	3	1	394	2	3	0	1	0	0	0
Future Vol, veh/h	16	558	3	1	394	2	3	0	1	0	0	0
Conflicting Peds, #/hr	4	0	0	0	0	4	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	6	4	0	0	7	0	0	0	0	0	0	0
Mvmt Flow	17	600	3	1	424	2	3	0	1	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	430	0	0	603	0	0	1063	1068	602
Stage 1	-	-	-	-	-	-	636	636	-
Stage 2	-	-	-	-	-	-	427	432	-
Critical Hdwy	4.16	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.254	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	1108	-	-	984	-	-	249	223	503
Stage 1	-	-	-	-	-	-	531	475	-
Stage 2	-	-	-	-	-	-	662	586	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1108	-	-	984	-	-	243	0	503
Mov Cap-2 Maneuver	-	-	-	-	-	-	243	0	-
Stage 1	-	-	-	-	-	-	519	0	-
Stage 2	-	-	-	-	-	-	661	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.2	0	18.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	279	1108	-	-	984	-	-
HCM Lane V/C Ratio	0.015	0.016	-	-	0.001	-	-
HCM Control Delay (s)	18.1	8.3	0	-	8.7	0	-
HCM Lane LOS	C	A	A	-	A	A	-
HCM 95th %tile Q(veh)	0	0	-	-	0	-	-

HCM 6th TWSC  
4: West Site & 119th Street

04/21/2023

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	543	16	2	394	3	0
Future Vol, veh/h	543	16	2	394	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	0	0	7	0	0
Mvmt Flow	572	17	2	415	3	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	589	0	1000
Stage 1	-	-	-	-	581
Stage 2	-	-	-	-	419
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	996	-	272
Stage 1	-	-	-	-	563
Stage 2	-	-	-	-	668
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	996	-	271
Mov Cap-2 Maneuver	-	-	-	-	271
Stage 1	-	-	-	-	563
Stage 2	-	-	-	-	666

Approach	EB	WB	NB
HCM Control Delay, s	0	0	18.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	271	-	-	996	-
HCM Lane V/C Ratio	0.012	-	-	0.002	-
HCM Control Delay (s)	18.4	-	-	8.6	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC  
5: Middle Site & 119th Street

04/21/2023

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	532	11	2	394	2	0
Future Vol, veh/h	532	11	2	394	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	0	0	7	0	0
Mvmt Flow	560	12	2	415	2	0

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	572	0	985
Stage 1	-	-	-	-	566
Stage 2	-	-	-	-	419
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1011	-	277
Stage 1	-	-	-	-	572
Stage 2	-	-	-	-	668
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1011	-	276
Mov Cap-2 Maneuver	-	-	-	-	276
Stage 1	-	-	-	-	572
Stage 2	-	-	-	-	666

Approach	EB	WB	NB
HCM Control Delay, s	0	0	18.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	276	-	-	1011	-
HCM Lane V/C Ratio	0.008	-	-	0.002	-
HCM Control Delay (s)	18.1	-	-	8.6	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

HCM 6th TWSC  
6: East Site & 119th Street

04/21/2023

Intersection						
Int Delay, s/veh	0.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	524	8	4	395	1	1
Future Vol, veh/h	524	8	4	395	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	4	0	0	7	0	0
Mvmt Flow	552	8	4	416	1	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	560	0	980
Stage 1	-	-	-	-	556
Stage 2	-	-	-	-	424
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1021	-	279
Stage 1	-	-	-	-	578
Stage 2	-	-	-	-	664
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1021	-	278
Mov Cap-2 Maneuver	-	-	-	-	278
Stage 1	-	-	-	-	578
Stage 2	-	-	-	-	661

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	14.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	366	-	-	1021	-
HCM Lane V/C Ratio	0.006	-	-	0.004	-
HCM Control Delay (s)	14.9	-	-	8.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-



**Intersection**

Int Delay, s/veh 2.2

**Movement** EBL EBT WBT WBR SBL SBR

Lane Configurations		↶	↷		↶	
Traffic Vol, veh/h	0	0	10	3	4	0
Future Vol, veh/h	0	0	10	3	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	100	100	0
Mvmt Flow	0	0	11	3	4	0

**Major/Minor** Major1 Major2 Minor2

Conflicting Flow All	14	0	-	0	13	13
Stage 1	-	-	-	-	13	-
Stage 2	-	-	-	-	0	-
Critical Hdwy	4.1	-	-	-	7.4	6.2
Critical Hdwy Stg 1	-	-	-	-	6.4	-
Critical Hdwy Stg 2	-	-	-	-	6.4	-
Follow-up Hdwy	2.2	-	-	-	4.4	3.3
Pot Cap-1 Maneuver	1617	-	-	-	803	1073
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	-	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1617	-	-	-	803	1073
Mov Cap-2 Maneuver	-	-	-	-	803	-
Stage 1	-	-	-	-	806	-
Stage 2	-	-	-	-	-	-

**Approach** EB WB SB

HCM Control Delay, s	0	0	9.5
HCM LOS			A

**Minor Lane/Major Mvmt** EBL EBT WBT WBR SBLn1

Capacity (veh/h)	1617	-	-	-	803
HCM Lane V/C Ratio	-	-	-	-	0.005
HCM Control Delay (s)	0	-	-	-	9.5
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	3.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	2	2	5	24	9	8
Future Vol, veh/h	2	2	5	24	9	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	70	70	70	70	70	70
Heavy Vehicles, %	100	100	40	0	0	13
Mvmt Flow	3	3	7	34	13	11

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	41	0	-	0	33 24
Stage 1	-	-	-	-	24 -
Stage 2	-	-	-	-	9 -
Critical Hdwy	5.1	-	-	-	6.4 6.33
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	3.1	-	-	-	3.5 3.417
Pot Cap-1 Maneuver	1115	-	-	-	986 1022
Stage 1	-	-	-	-	1004 -
Stage 2	-	-	-	-	1019 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1115	-	-	-	983 1022
Mov Cap-2 Maneuver	-	-	-	-	983 -
Stage 1	-	-	-	-	1001 -
Stage 2	-	-	-	-	1019 -

Approach	EB	WB	SB
HCM Control Delay, s	4.1	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1115	-	-	-	1001
HCM Lane V/C Ratio	0.003	-	-	-	0.024
HCM Control Delay (s)	8.2	0	-	-	8.7
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

Intersection						
Int Delay, s/veh	2.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	6	1	11	15	16	3
Future Vol, veh/h	6	1	11	15	16	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	100	0	0	13	6	100
Mvmt Flow	6	1	12	16	17	3

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	59	19	20	0	0
Stage 1	19	-	-	-	-
Stage 2	40	-	-	-	-
Critical Hdwy	7.4	6.2	4.1	-	-
Critical Hdwy Stg 1	6.4	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-
Follow-up Hdwy	4.4	3.3	2.2	-	-
Pot Cap-1 Maneuver	751	1065	1609	-	-
Stage 1	800	-	-	-	-
Stage 2	781	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	745	1065	1609	-	-
Mov Cap-2 Maneuver	745	-	-	-	-
Stage 1	794	-	-	-	-
Stage 2	781	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.7	3.1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1609	-	778	-	-
HCM Lane V/C Ratio	0.007	-	0.009	-	-
HCM Control Delay (s)	7.3	0	9.7	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0	-	-

Capacity Analysis Summary Sheets  
Projected Weekday Evening Peak Hour Conditions

Lanes, Volumes, Timings  
1: Marshfield Avenue & 119th Street

04/21/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑		↑↑					↓	↑↑↑	↑
Traffic Volume (vph)	0	561	222	229	543	0	0	0	0	282	315	405
Future Volume (vph)	0	561	222	229	543	0	0	0	0	282	315	405
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	11	10	12	12	12	12	12	12	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		170	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		0	1		1
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.86	0.81	0.86
Ped Bike Factor			0.98		1.00							
Frt			0.850									0.850
Flt Protected					0.985					0.950	0.985	
Satd. Flow (prot)	0	3601	1407	0	3476	0	0	0	0	1434	4203	1283
Flt Permitted					0.985					0.950	0.985	
Satd. Flow (perm)	0	3601	1380	0	3474	0	0	0	0	1434	4203	1283
Right Turn on Red			Yes			No			No			No
Satd. Flow (RTOR)			176									
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1292			290			593			671	
Travel Time (s)		29.4			6.6			13.5			15.3	
Confl. Peds. (#/hr)	11		6	6		11						
Confl. Bikes (#/hr)												
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	5%	3%	2%	0%	0%	0%	0%	1%	1%	1%
Bus Blockages (#/hr)	0	0	5	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)										48%		0%
Lane Group Flow (vph)	0	572	227	0	788	0	0	0	0	150	459	413
Turn Type		NA	Perm	Split	NA					Split	NA	custom
Protected Phases		2		10 12 14	10 12 14					4	4	
Permitted Phases			2									4 2
Detector Phase		2		2 10 12 14	10 12 14					4	4	4 2
Switch Phase												
Minimum Initial (s)		4.0	4.0							4.0	4.0	
Minimum Split (s)		22.0	22.0							20.0	20.0	
Total Split (s)		46.0	46.0							28.0	28.0	
Total Split (%)		28.8%	28.8%							17.5%	17.5%	
Yellow Time (s)		4.5	4.5							4.5	4.5	
All-Red Time (s)		1.5	1.5							1.5	1.5	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode		C-Min	C-Min							None	None	
Act Effct Green (s)		40.0	40.0		66.5					22.1	22.1	68.1
Actuated g/C Ratio		0.25	0.25		0.42					0.14	0.14	0.43

Lanes, Volumes, Timings  
 1: Marshfield Avenue & 119th Street

04/21/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.64	0.48		0.55					0.76	0.79	0.76
Control Delay		57.2	16.2		0.9					90.1	77.6	49.5
Queue Delay		0.0	0.0		0.7					0.0	0.0	0.0
Total Delay		57.2	16.2		1.6					90.1	77.6	49.5
LOS		E	B		A					F	E	D
Approach Delay		45.6			1.6						68.1	
Approach LOS		D			A						E	
Queue Length 50th (ft)		283	42		0					179	194	423
Queue Length 95th (ft)		351	129		m0					#308	245	597
Internal Link Dist (ft)		1212			210			513			591	
Turn Bay Length (ft)			170									
Base Capacity (vph)		900	477		1445					198	580	546
Starvation Cap Reductn		0	0		338					0	0	0
Spillback Cap Reductn		0	0		0					0	0	0
Storage Cap Reductn		0	0		0					0	0	0
Reduced v/c Ratio		0.64	0.48		0.71					0.76	0.79	0.76

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of 1st Green, Master Intersection  
 Natural Cycle: 105  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 41.1      Intersection LOS: D  
 Intersection Capacity Utilization 62.5%      ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Marshfield Avenue & 119th Street

#1 #2 Ø14 46 s	#1 #2 Ø2 (R) 28 s	#2 Ø8 16 s	#1 #2 Ø10 33 s	#1 #2 Ø12 26 s	#1 11 s
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Lanes, Volumes, Timings  
2: Ashland Avenue & 119th Street

04/21/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑↑			↑↑	↗	↘	↔↑	↗			
Traffic Volume (vph)	406	437	0	0	449	155	323	185	187	0	0	0
Future Volume (vph)	406	437	0	0	449	155	323	185	187	0	0	0
Ideal Flow (vphpl)	1900	2000	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	12	12	11	11	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	250		0	0		185	0		0	0		0
Storage Lanes	1		0	0		1	1		1	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	0.95	1.00	0.91	0.91	1.00	1.00	1.00	1.00
Ped Bike Factor	1.00					0.98	1.00	1.00	0.99			
Fr <sub>t</sub>						0.850			0.850			
Fl <sub>t</sub> Protected	0.950						0.950	0.978				
Satd. Flow (prot)	1728	3601	0	0	3421	1487	1595	3336	1568	0	0	0
Fl <sub>t</sub> Permitted	0.950						0.950	0.978				
Satd. Flow (perm)	1725	3601	0	0	3421	1453	1591	3333	1545	0	0	0
Right Turn on Red			No			Yes			Yes			No
Satd. Flow (RTOR)						157			201			
Link Speed (mph)		30			30			30				30
Link Distance (ft)		290			321			598				786
Travel Time (s)		6.6			7.3			13.6				17.9
Confl. Peds. (#/hr)	6		4	4		6	1		1	1		1
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	2%	0%	0%	2%	5%	3%	0%	3%	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 (%)							48%					
Lane Group Flow (vph)	437	470	0	0	483	167	180	366	201	0	0	0
Turn Type	Split	NA			NA	Perm	Split	NA	Perm			
Protected Phases	2 4 8	2 4 8			10		12	12				
Permitted Phases						10			12			
Detector Phase	2 4 8	2 4 8			10	10	12	12	12			
Switch Phase												
Minimum Initial (s)					4.0	4.0	4.0	4.0	4.0			
Minimum Split (s)					22.0	22.0	15.0	15.0	15.0			
Total Split (s)					33.0	33.0	26.0	26.0	26.0			
Total Split (%)					20.6%	20.6%	16.3%	16.3%	16.3%			
Yellow Time (s)					4.5	4.5	4.5	4.5	4.5			
All-Red Time (s)					1.5	1.5	1.5	1.5	1.5			
Lost Time Adjust (s)					0.0	0.0	0.0	0.0	0.0			
Total Lost Time (s)					6.0	6.0	6.0	6.0	6.0			
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode					None	None	None	None	None			
Act Effct Green (s)	81.5	81.5			29.2	29.2	20.2	20.2	20.2			
Actuated g/C Ratio	0.51	0.51			0.18	0.18	0.13	0.13	0.13			

Lanes, Volumes, Timings  
 2: Ashland Avenue & 119th Street

04/21/2023

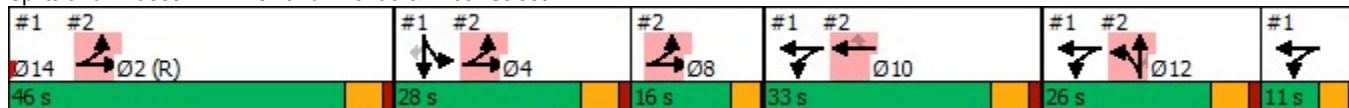


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.50	0.26			0.77	0.42	0.90	0.87	0.54			
Control Delay	4.1	1.1			71.6	13.0	108.9	89.3	13.4			
Queue Delay	1.4	0.5			0.0	0.0	0.0	0.0	0.0			
Total Delay	5.5	1.6			71.6	13.0	108.9	89.3	13.4			
LOS	A	A			E	B	F	F	B			
Approach Delay		3.5			56.6			73.6				
Approach LOS		A			E			E				
Queue Length 50th (ft)	31	5			255	9	207	210	0			
Queue Length 95th (ft)	16	6			328	81	#374	#304	81			
Internal Link Dist (ft)		210			241			518			706	
Turn Bay Length (ft)	250					185						
Base Capacity (vph)	908	1893			624	393	201	421	371			
Starvation Cap Reductn	280	946			0	0	0	0	0			
Spillback Cap Reductn	0	0			0	0	0	0	0			
Storage Cap Reductn	0	0			0	0	0	0	0			
Reduced v/c Ratio	0.70	0.50			0.77	0.42	0.90	0.87	0.54			

Intersection Summary

Area Type: Other  
 Cycle Length: 160  
 Actuated Cycle Length: 160  
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of 1st Green, Master Intersection  
 Natural Cycle: 105  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.90  
 Intersection Signal Delay: 41.2 Intersection LOS: D  
 Intersection Capacity Utilization 65.5% ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Ashland Avenue & 119th Street





Lanes, Volumes, Timings  
7: Morgan Street & 119th Street

04/21/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	141	354	20	0	354	105	15	0	0	209	0	219
Future Volume (vph)	141	354	20	0	354	105	15	0	0	209	0	219
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	15	15	15	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	0		0	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ped Bike Factor		1.00										
Frt		0.995			0.969							0.931
Flt Protected		0.987						0.950				0.976
Satd. Flow (prot)	0	1710	0	0	1705	0	0	1351	0	0	1726	0
Flt Permitted		0.595						0.950				0.976
Satd. Flow (perm)	0	1031	0	0	1705	0	0	1351	0	0	1726	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2			18							85
Link Speed (mph)		30			30			30				30
Link Distance (ft)		97			1329			526				1012
Travel Time (s)		2.2			30.2			12.0				23.0
Confl. Peds. (#/hr)			2	2								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	0%	45%	0%	1%	0%	47%	0%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	5	0	0	5	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%				0%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	592	0	0	528	0	0	17	0	0	492	0
Turn Type	Perm	NA			NA		Split	NA		Split	NA	
Protected Phases		4			8		2	2		6	6	
Permitted Phases	4			8								
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	30.0	30.0		30.0	30.0		10.0	10.0		10.0	10.0	
Minimum Split (s)	35.0	35.0		35.0	35.0		15.0	15.0		15.0	15.0	
Total Split (s)	35.0	35.0		35.0	35.0		30.0	30.0		25.0	25.0	
Total Split (%)	38.9%	38.9%		38.9%	38.9%		33.3%	33.3%		27.8%	27.8%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		5.0			5.0			5.0			5.0	
Lead/Lag							Lag	Lag		Lead	Lead	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	C-Max	C-Max		C-Max	C-Max		None	None		None	None	
Act Effct Green (s)		53.9			53.9			10.1			20.0	
Actuated g/C Ratio		0.60			0.60			0.11			0.22	

Lanes, Volumes, Timings  
7: Morgan Street & 119th Street

04/21/2023

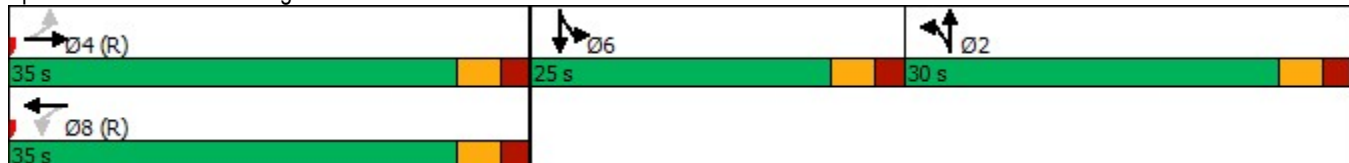


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.96			0.51			0.11				1.10
Control Delay		49.0			12.2			37.7				100.5
Queue Delay		0.0			0.0			0.0				0.0
Total Delay		49.0			12.2			37.7				100.5
LOS		D			B			D				F
Approach Delay		49.0			12.2			37.7				100.5
Approach LOS		D			B			D				F
Queue Length 50th (ft)		231			92			9				~279
Queue Length 95th (ft)		#579			m303			28				#447
Internal Link Dist (ft)		17			1249			446				932
Turn Bay Length (ft)												
Base Capacity (vph)		618			1027			375				449
Starvation Cap Reductn		0			0			0				0
Spillback Cap Reductn		0			0			0				0
Storage Cap Reductn		0			0			0				0
Reduced v/c Ratio		0.96			0.51			0.05				1.10

Intersection Summary

Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 56 (62%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green  
 Natural Cycle: 150  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.10  
 Intersection Signal Delay: 52.5 Intersection LOS: D  
 Intersection Capacity Utilization 87.5% ICU Level of Service E  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 7: Morgan Street & 119th Street



Lanes, Volumes, Timings  
8: Halsted Street & 119th Street

04/21/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	144	268	113	62	221	58	136	510	59	103	644	131
Future Volume (vph)	144	268	113	62	221	58	136	510	59	103	644	131
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	9	9	9	9	9	9	9	11	11	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	135		0	60		0	115		0	115		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	200			95			110			95		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor	1.00	0.99		0.99	1.00		0.99	1.00		0.99	0.99	
Frt		0.955			0.969			0.984			0.975	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1608	1608	0	1624	1474	0	1608	3219	0	1685	3058	0
Flt Permitted	0.448			0.373			0.144			0.316		
Satd. Flow (perm)	755	1608	0	633	1474	0	242	3219	0	556	3058	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			17			14			27	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		1329			4900			658			4523	
Travel Time (s)		30.2			111.4			15.0			102.8	
Confl. Peds. (#/hr)	8		18	18		8	16		11	11		16
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 (%)	1%	1%	0%	0%	1%	0%	1%	1%	0%	0%	1%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)					0	0		0	0		0	0
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	152	401	0	65	294	0	143	599	0	108	816	0
Turn Type	pm+pt	NA		pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	7	4		3	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	7.0	34.0		7.0	34.0		7.0	27.0		7.0	27.0	
Minimum Split (s)	10.0	38.0		10.0	38.0		10.0	32.0		10.0	32.0	
Total Split (s)	10.0	38.0		10.0	38.0		10.0	32.0		10.0	32.0	
Total Split (%)	11.1%	42.2%		11.1%	42.2%		11.1%	35.6%		11.1%	35.6%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	0.0	1.0		0.0	1.0		0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	4.0		3.0	4.0		3.0	5.0		3.0	5.0	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Max		None	Max		None	C-Max		None	C-Max	
Act Effct Green (s)	42.6	36.0		42.0	34.0		36.6	29.0		36.0	27.0	
Actuated g/C Ratio	0.47	0.40		0.47	0.38		0.41	0.32		0.40	0.30	

Lanes, Volumes, Timings  
 8: Halsted Street & 119th Street

04/21/2023

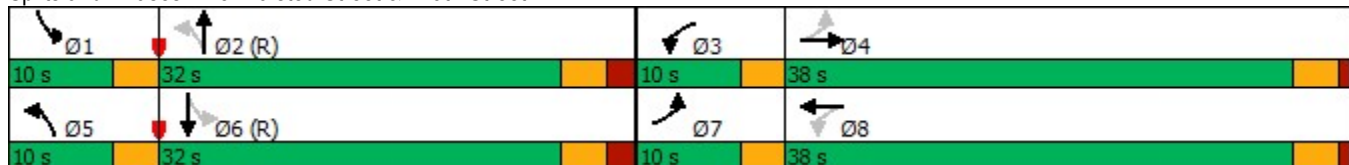


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.36	0.61		0.17	0.52		0.70	0.57		0.35	0.87	
Control Delay	16.1	25.1		13.0	24.3		36.7	28.0		18.9	40.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	16.1	25.1		13.0	24.3		36.7	28.0		18.9	40.7	
LOS	B	C		B	C		D	C		B	D	
Approach Delay		22.6			22.3			29.7			38.1	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	39	175		18	119		49	149		36	223	
Queue Length 95th (ft)	m56	m220		40	198		#116	206		69	#330	
Internal Link Dist (ft)		1249			4820			578			4443	
Turn Bay Length (ft)	135			60			115			115		
Base Capacity (vph)	423	659		372	567		205	1046		310	936	
Starvation Cap Reductn	0	0		0	0		0	0		0	0	
Spillback Cap Reductn	0	0		0	0		0	0		0	0	
Storage Cap Reductn	0	0		0	0		0	0		0	0	
Reduced v/c Ratio	0.36	0.61		0.17	0.52		0.70	0.57		0.35	0.87	

Intersection Summary

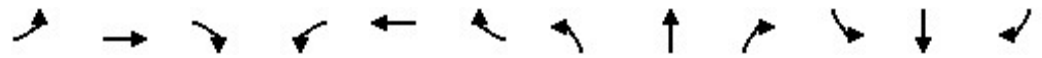
Area Type: Other  
 Cycle Length: 90  
 Actuated Cycle Length: 90  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 90  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.87  
 Intersection Signal Delay: 30.2 Intersection LOS: C  
 Intersection Capacity Utilization 80.5% 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.  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 8: Halsted Street & 119th Street



Lanes, Volumes, Timings  
11: Halsted Street & 120th Street

04/21/2023



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Volume (vph)	9	8	42	28	14	17	25	679	31	26	789	4
Future Volume (vph)	9	8	42	28	14	17	25	679	31	26	789	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	9	10	10	9	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	0		0	0		0	95		0	95		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			110			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor		0.99			0.99		0.99	1.00		1.00	1.00	
Frt		0.903			0.961			0.994			0.999	
Flt Protected		0.993			0.977		0.950			0.950		
Satd. Flow (prot)	0	1423	0	0	1545	0	1562	3314	0	1624	3361	0
Flt Permitted		0.962			0.859		0.276			0.323		
Satd. Flow (perm)	0	1378	0	0	1357	0	450	3314	0	551	3361	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		44			18		8				1	
Link Speed (mph)		30			30		30				30	
Link Distance (ft)		1262			4327		5331				658	
Travel Time (s)		28.7			98.3		121.2				15.0	
Confl. Peds. (#/hr)	3		2	2		3	17		3	3		17
Confl. Bikes (#/hr)												
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	11%	0%	2%	0%	0%	0%	4%	1%	0%	0%	0%	25%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)	0	0	0	0	0	0						
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	61	0	0	62	0	26	739	0	27	826	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		2	2		6	6	
Switch Phase												
Minimum Initial (s)	23.0	23.0		23.0	23.0		27.0	27.0		27.0	27.0	
Minimum Split (s)	31.0	31.0		31.0	31.0		34.0	34.0		34.0	34.0	
Total Split (s)	31.0	31.0		31.0	31.0		34.0	34.0		34.0	34.0	
Total Split (%)	47.7%	47.7%		47.7%	47.7%		52.3%	52.3%		52.3%	52.3%	
Yellow Time (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	5.0	5.0		5.0	5.0		4.0	4.0		4.0	4.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		8.0			8.0		7.0	7.0		7.0	7.0	
Lead/Lag												
Lead-Lag Optimize?												
Recall Mode	Max	Max		Max	Max		Max	Max		Max	Max	
Act Effct Green (s)		23.0			23.0		27.0	27.0		27.0	27.0	
Actuated g/C Ratio		0.35			0.35		0.42	0.42		0.42	0.42	

Lanes, Volumes, Timings  
 11: Halsted Street & 120th Street

04/21/2023

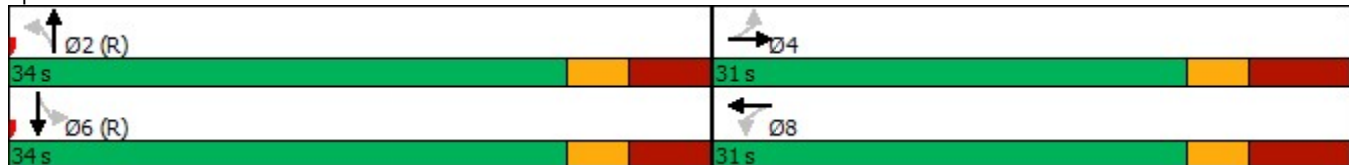


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.12			0.13		0.14	0.54		0.12	0.59	
Control Delay		7.5			11.8		14.3	15.9		13.5	16.9	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		7.5			11.8		14.3	15.9		13.5	16.9	
LOS		A			B		B	B		B	B	
Approach Delay		7.5			11.8			15.8			16.8	
Approach LOS		A			B			B			B	
Queue Length 50th (ft)		4			11		6	110		6	127	
Queue Length 95th (ft)		26			34		21	157		22	181	
Internal Link Dist (ft)		1182			4247			5251			578	
Turn Bay Length (ft)							95			95		
Base Capacity (vph)		516			491		186	1381		228	1396	
Starvation Cap Reductn		0			0		0	0		0	0	
Spillback Cap Reductn		0			0		0	0		0	0	
Storage Cap Reductn		0			0		0	0		0	0	
Reduced v/c Ratio		0.12			0.13		0.14	0.54		0.12	0.59	

Intersection Summary

Area Type:	Other
Cycle Length:	65
Actuated Cycle Length:	65
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.59
Intersection Signal Delay:	15.8
Intersection LOS:	B
Intersection Capacity Utilization	54.2%
ICU Level of Service	A
Analysis Period (min)	15

Splits and Phases: 11: Halsted Street & 120th Street



HCM 6th TWSC  
 3: MIFAB Access/CC Access Drive & 119th Street

04/21/2023

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	20	517	1	0	616	2	1	0	0	0	0	0
Future Vol, veh/h	20	517	1	0	616	2	1	0	0	0	0	0
Conflicting Peds, #/hr	1	0	2	2	0	1	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	0	2	100	0	2	0	0	0	0	0	0	0
Mvmt Flow	24	608	1	0	725	2	1	0	0	0	0	0

Major/Minor	Major1			Major2			Minor1		
Conflicting Flow All	728	0	0	611	0	0	1385	1387	611
Stage 1	-	-	-	-	-	-	659	659	-
Stage 2	-	-	-	-	-	-	726	728	-
Critical Hdwy	4.1	-	-	4.1	-	-	6.4	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	5.4	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	5.4	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3
Pot Cap-1 Maneuver	885	-	-	978	-	-	160	144	497
Stage 1	-	-	-	-	-	-	518	464	-
Stage 2	-	-	-	-	-	-	483	432	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	885	-	-	976	-	-	153	0	496
Mov Cap-2 Maneuver	-	-	-	-	-	-	153	0	-
Stage 1	-	-	-	-	-	-	496	0	-
Stage 2	-	-	-	-	-	-	483	0	-

Approach	EB	WB	NB
HCM Control Delay, s	0.3	0	28.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR
Capacity (veh/h)	153	885	-	-	976	-	-
HCM Lane V/C Ratio	0.008	0.027	-	-	-	-	-
HCM Control Delay (s)	28.7	9.2	0	-	0	-	-
HCM Lane LOS	D	A	A	-	A	-	-
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-

HCM 6th TWSC  
4: West Site & 119th Street

04/21/2023

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	513	4	0	604	14	1
Future Vol, veh/h	513	4	0	604	14	1
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	540	4	0	636	15	1

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	546	0	1180
Stage 1	-	-	-	-	544
Stage 2	-	-	-	-	636
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1033	-	212
Stage 1	-	-	-	-	586
Stage 2	-	-	-	-	531
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1031	-	212
Mov Cap-2 Maneuver	-	-	-	-	212
Stage 1	-	-	-	-	585
Stage 2	-	-	-	-	531

Approach	EB	WB	NB
HCM Control Delay, s	0	0	22.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	221	-	-	1031	-
HCM Lane V/C Ratio	0.071	-	-	-	-
HCM Control Delay (s)	22.5	-	-	0	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-



HCM 6th TWSC  
5: Middle Site & 119th Street

04/21/2023

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	511	3	1	594	10	2
Future Vol, veh/h	511	3	1	594	10	2
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	0	0	2	0	0
Mvmt Flow	538	3	1	625	11	2

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	543	0	1169
Stage 1	-	-	-	-	542
Stage 2	-	-	-	-	627
Critical Hdwy	-	-	4.1	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-	3.5
Pot Cap-1 Maneuver	-	-	1036	-	215
Stage 1	-	-	-	-	587
Stage 2	-	-	-	-	536
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1034	-	214
Mov Cap-2 Maneuver	-	-	-	-	214
Stage 1	-	-	-	-	586
Stage 2	-	-	-	-	535

Approach	EB	WB	NB
HCM Control Delay, s	0	0	21
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	238	-	-	1034	-
HCM Lane V/C Ratio	0.053	-	-	0.001	-
HCM Control Delay (s)	21	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC  
6: East Site & 119th Street

04/21/2023

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	511	2	1	587	8	4
Future Vol, veh/h	511	2	1	587	8	4
Conflicting Peds, #/hr	0	2	2	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	0	0	2	2	2
Mvmt Flow	538	2	1	618	8	4

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	542	0	1161
Stage 1	-	-	-	-	541
Stage 2	-	-	-	-	620
Critical Hdwy	-	-	4.1	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.2	-	3.518
Pot Cap-1 Maneuver	-	-	1037	-	216
Stage 1	-	-	-	-	583
Stage 2	-	-	-	-	536
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1035	-	215
Mov Cap-2 Maneuver	-	-	-	-	215
Stage 1	-	-	-	-	582
Stage 2	-	-	-	-	535

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	269	-	-	1035	-
HCM Lane V/C Ratio	0.047	-	-	0.001	-
HCM Control Delay (s)	19	-	-	8.5	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0	-

**Intersection**

Int Delay, s/veh 2.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	0	2	3	4	4	0
Future Vol, veh/h	0	2	3	4	4	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	100	100	0
Mvmt Flow	0	2	3	4	4	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	7	0	5
Stage 1	-	-	5
Stage 2	-	-	2
Critical Hdwy	4.1	-	6.2
Critical Hdwy Stg 1	-	-	6.4
Critical Hdwy Stg 2	-	-	6.4
Follow-up Hdwy	2.2	-	3.3
Pot Cap-1 Maneuver	1627	-	1084
Stage 1	-	-	813
Stage 2	-	-	816
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	1627	-	1084
Mov Cap-2 Maneuver	-	-	810
Stage 1	-	-	813
Stage 2	-	-	816

Approach	EB	WB	SB
HCM Control Delay, s	0	0	9.5
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1627	-	-	-	810
HCM Lane V/C Ratio	-	-	-	-	0.005
HCM Control Delay (s)	0	-	-	-	9.5
HCM Lane LOS	A	-	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0

Intersection						
Int Delay, s/veh	5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↶	↷		↶	↷
Traffic Vol, veh/h	2	4	4	12	21	3
Future Vol, veh/h	2	4	4	12	21	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	54	54	54	54	54	54
Heavy Vehicles, %	100	50	50	0	5	67
Mvmt Flow	4	7	7	22	39	6

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	29	0	-	0	33 18
Stage 1	-	-	-	-	18 -
Stage 2	-	-	-	-	15 -
Critical Hdwy	5.1	-	-	-	6.45 6.87
Critical Hdwy Stg 1	-	-	-	-	5.45 -
Critical Hdwy Stg 2	-	-	-	-	5.45 -
Follow-up Hdwy	3.1	-	-	-	3.545 3.903
Pot Cap-1 Maneuver	1129	-	-	-	973 900
Stage 1	-	-	-	-	997 -
Stage 2	-	-	-	-	1000 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1129	-	-	-	969 900
Mov Cap-2 Maneuver	-	-	-	-	969 -
Stage 1	-	-	-	-	993 -
Stage 2	-	-	-	-	1000 -

Approach	EB	WB	SB
HCM Control Delay, s	2.7	0	8.9
HCM LOS			A

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1129	-	-	-	960
HCM Lane V/C Ratio	0.003	-	-	-	0.046
HCM Control Delay (s)	8.2	0	-	-	8.9
HCM Lane LOS	A	A	-	-	A
HCM 95th %tile Q(veh)	0	-	-	-	0.1

HCM 6th TWSC  
12: Morgan Street & Site

04/21/2023

Intersection						
Int Delay, s/veh	3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T			T		T
Traffic Vol, veh/h	5	10	2	12	14	6
Future Vol, veh/h	5	10	2	12	14	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	100	0	0	17	21	100
Mvmt Flow	5	11	2	13	15	6

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	35	18	21	0	0
Stage 1	18	-	-	-	-
Stage 2	17	-	-	-	-
Critical Hdwy	7.4	6.2	4.1	-	-
Critical Hdwy Stg 1	6.4	-	-	-	-
Critical Hdwy Stg 2	6.4	-	-	-	-
Follow-up Hdwy	4.4	3.3	2.2	-	-
Pot Cap-1 Maneuver	778	1066	1608	-	-
Stage 1	801	-	-	-	-
Stage 2	802	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	777	1066	1608	-	-
Mov Cap-2 Maneuver	777	-	-	-	-
Stage 1	800	-	-	-	-
Stage 2	802	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	8.9	1	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1608	-	948	-	-
HCM Lane V/C Ratio	0.001	-	0.017	-	-
HCM Control Delay (s)	7.2	0	8.9	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

## Supplemental Capacity Analysis Tables

Table A  
 CAPACITY ANALYSIS RESULTS - SIGNALIZED  
 V/C RATIOS AND 95<sup>th</sup> PERCENTILE QUEUES – EXISTING CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	V/C Ratio	Queues (Feet)	V/C Ratio	Queues (Feet)
<b>119<sup>th</sup> Street with Marshfield Avenue</b>				
• Eastbound Through	0.44	255	0.60	338
• Eastbound Right Turn	0.39	67	0.45	117
• Westbound Approach	0.45	<25	0.51	<25
• Southbound Left Turn	0.67	197	0.72	280
• Southbound Through	0.60	151	0.77	236
• Southbound Right Turn	0.50	338	0.73	570
<b>119<sup>th</sup> Street with Ashland Avenue</b>				
• Eastbound Left Turn	0.33	<25	0.48	<25
• Eastbound Through	0.21	<25	0.24	<25
• Westbound Through	0.57	221	0.71	298
• Westbound Right Turn	0.31	26	0.37	57
• Northbound Left Turn	0.82	372	0.89	364
• Northbound Through	0.76	298	0.86	292
• Northbound Right Turn	0.58	92	0.52	78
<b>119<sup>th</sup> Street with Morgan Street</b>				
• Eastbound Approach	0.51	350	0.82	521
• Westbound Approach	0.30	191	0.47	297
• Northbound Approach	0.05	<25	0.04	18
• Southbound Approach	0.62	132	1.10	447
<b>119<sup>th</sup> Street with Halsted Street</b>				
• Eastbound Left-Turn	0.28	105	0.33	56
• Eastbound Through/Right-Turn	0.40	208	0.59	236
• Westbound Left-Turn	0.09	29	0.17	39
• Westbound Through/Right-Turn	0.46	165	0.50	190
• Northbound Left-Turn	0.19	48	0.66	104
• Northbound Through/Right-Turn	0.64	251	0.55	198
• Southbound Left-Turn	0.17	35	0.33	67
• Southbound Through/Right-Turn	0.39	118	0.84	310
<b>120<sup>th</sup> Street with Halsted Street</b>				
• Eastbound Approach	0.07	<25	0.09	<25
• Westbound Approach	0.13	31	0.13	34
• Northbound Left-Turn	0.10	<25	0.11	<25
• Northbound Through/Right-Turn	0.63	180	0.52	152
• Southbound Left-Turn	0.13	<25	0.11	<25
• Southbound Through/Right-Turn	0.32	84	0.57	173

Table B  
 CAPACITY ANALYSIS RESULTS - SIGNALIZED  
 V/C RATIOS AND 95<sup>th</sup> PERCENTILE QUEUES – YEAR 2029 PROJECTED CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	V/C Ratio	Queues (Feet)	V/C Ratio	Queues (Feet)
<b>119<sup>th</sup> Street with Marshfield Avenue</b>				
• Eastbound Through	0.49	270	0.64	384
• Eastbound Right Turn	0.41	68	0.48	129
• Westbound Approach	0.46	<25	0.55	<25
• Southbound Left Turn	0.69	233	0.76	308
• Southbound Through	0.60	160	0.79	245
• Southbound Right Turn	0.52	350	0.76	597
<b>119<sup>th</sup> Street with Ashland Avenue</b>				
• Eastbound Left Turn	0.34	<25	0.50	<25
• Eastbound Through	0.24	<25	0.26	<25
• Westbound Through	0.60	234	0.77	328
• Westbound Right Turn	0.34	37	0.42	81
• Northbound Left Turn	0.84	386	0.90	374
• Northbound Through	0.79	313	0.87	304
• Northbound Right Turn	0.61	96	0.54	81
<b>119<sup>th</sup> Street with Morgan Street</b>				
• Eastbound Approach	0.56	370	0.96	579
• Westbound Approach	0.34	206	0.51	303
• Northbound Approach	0.10	<25	0.11	28
• Southbound Approach	0.62	132	1.10	447
<b>119<sup>th</sup> Street with Halsted Street</b>				
• Eastbound Left-Turn	0.30	109	0.36	56
• Eastbound Through/Right-Turn	0.41	213	0.61	220
• Westbound Left-Turn	0.09	30	0.17	40
• Westbound Through/Right-Turn	0.48	174	0.52	198
• Northbound Left-Turn	0.20	49	0.70	116
• Northbound Through/Right-Turn	0.66	260	0.57	206
• Southbound Left-Turn	0.18	35	0.35	69
• Southbound Through/Right-Turn	0.41	124	0.87	330
<b>120<sup>th</sup> Street with Halsted Street</b>				
• Eastbound Approach	0.08	<25	0.12	26
• Westbound Approach	0.13	31	0.13	34
• Northbound Left-Turn	0.13	30	0.14	21
• Northbound Through/Right-Turn	0.61	183	0.54	157
• Southbound Left-Turn	0.12	<25	0.12	22
• Southbound Through/Right-Turn	0.32	86	0.59	181



Table C

## CAPACITY ANALYSIS RESULTS - UNSIGNALIZED

V/C RATIOS AND 95<sup>th</sup> PERCENTILE QUEUES – EXISTING CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	V/C Ratio	Queues (Feet)	V/C Ratio	Queues (Feet)
<b>119<sup>th</sup> Street with the MIFAB and Community Center Access Drives</b>				
• Eastbound Left Turn	0.02	<25	0.03	<25
• Westbound Left Turn	<0.01	<25	<0.01	<25
• Northbound Approach	0.01	<25	<0.01	<25
<b>120<sup>th</sup> Street with Morgan Street</b>				
• Eastbound Left Turn	<0.01	<25	<0.01	<25
• Southbound Approach	0.02	<25	0.2	<25

Table D

## CAPACITY ANALYSIS RESULTS - UNSIGNALIZED

V/C RATIOS AND 95<sup>th</sup> PERCENTILE QUEUES – YEAR 2029 PROJECTED CONDITIONS

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	V/C Ratio	Queues (Feet)	V/C Ratio	Queues (Feet)
<b>119<sup>th</sup> Street with the MIFAB and Community Center Access Drives</b>				
• Eastbound Left Turn	0.02	<25	0.03	<25
• Westbound Left Turn	<0.01	<25	<0.01	<25
• Northbound Approach	0.01	<25	<0.01	<25
<b>119<sup>th</sup> Street with the West Site Access</b>				
• Westbound Left Turn	<0.01	<25	<0.01	<25
• Northbound Approach	0.01	<25	0.7	<25
<b>119<sup>th</sup> Street with the West Site Access</b>				
• Westbound Left Turn	<0.01	<25	<0.01	<25
• Northbound Approach	<0.01	<25	0.05	<25
<b>119<sup>th</sup> Street with the West Site Access</b>				
• Westbound Left Turn	<0.01	<25	<0.01	<25
• Northbound Approach	<0.01	<25	0.05	<25
<b>120<sup>th</sup> Street with Morgan Street</b>				
• Eastbound Left Turn	<0.01	<25	<0.01	<25
• Southbound Approach	0.02	<25	0.05	<25
<b>120<sup>th</sup> Street with the Site Access</b>				
• Southbound Approach	<0.01	<25	<0.01	<25
<b>Morgan Street with the Site Access</b>				
• Eastbound Approach	<0.01	<25	0.02	<25
• Northbound Left Turn	<0.01	<25	<0.01	<25