

Traffic Impact Study Proposed Pete's Fresh Market

Oak Park, Illinois



Prepared For:



December 9, 2020

1. Introduction

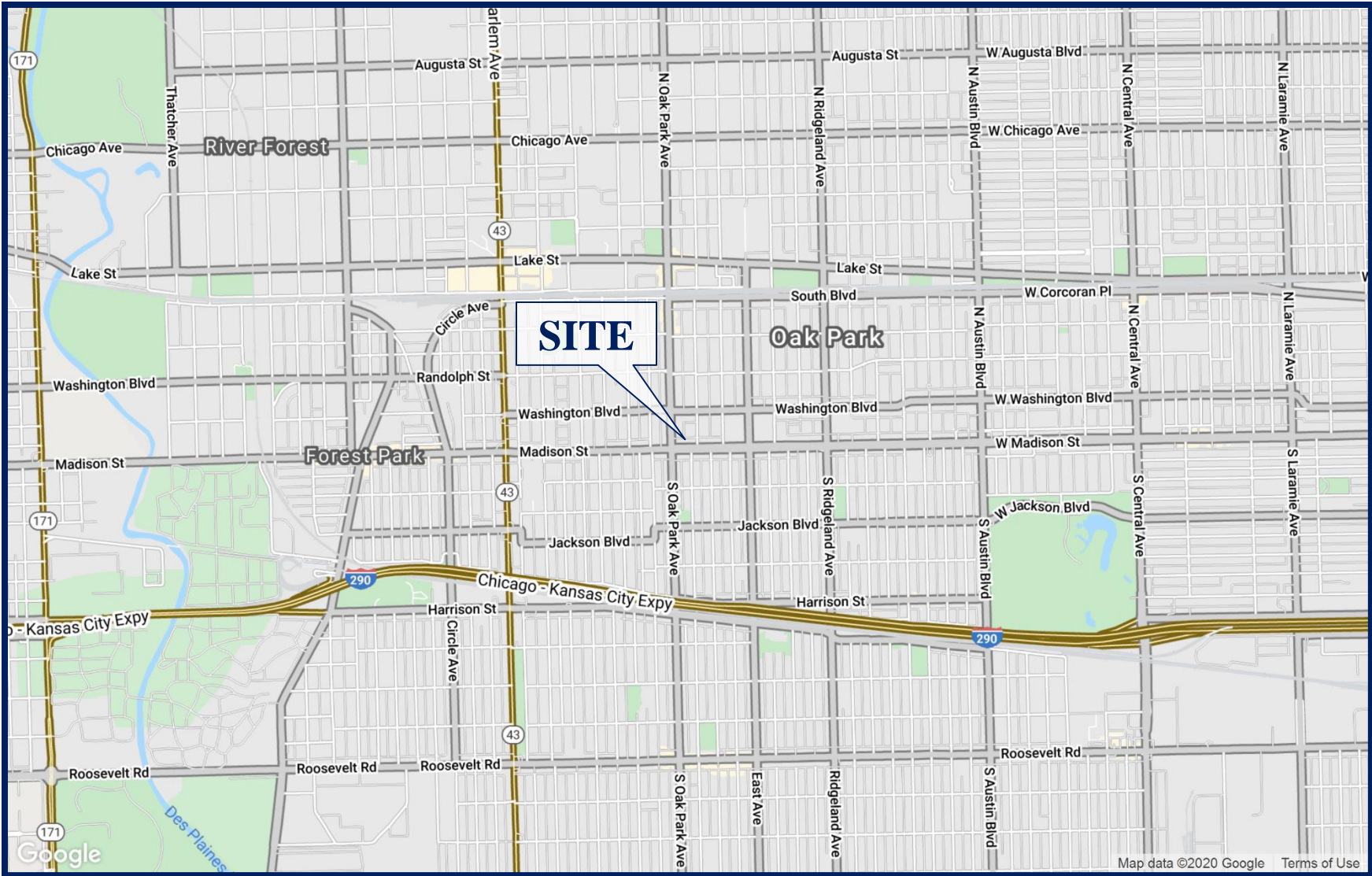
This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O’Hara, Aboona, Inc. (KLOA, Inc.) for the proposed Pete’s Fresh Market grocery store to be located in Oak Park, Illinois. The site, which is currently occupied by a vacant retail building and the former Oak Park public parking lot 116, is located in the northeast quadrant of the intersection of Madison Street with Oak Park Avenue. As proposed the site will be developed with an approximately 49,442 square foot Pete’s Fresh Market grocery store with approximately 231 parking spaces. Access to the site will be provided via a right-in/right-out access drive off Madison Street and a right-in/right-out access drive off Oak Park Avenue. A double berth loading zone will be located off Wesley Avenue. The purpose of this study was to examine background traffic conditions, assess the impact that the proposed development will have on traffic conditions in the area, and to determine if any roadway or access improvements are necessary to accommodate traffic generated by the proposed development. **Figure 1** shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site area as well the other area developments accounted for in this report.

The sections of this report present the following:

- Existing roadway 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
- Recommendations with respect to adequacy of the site access and adjacent roadway system

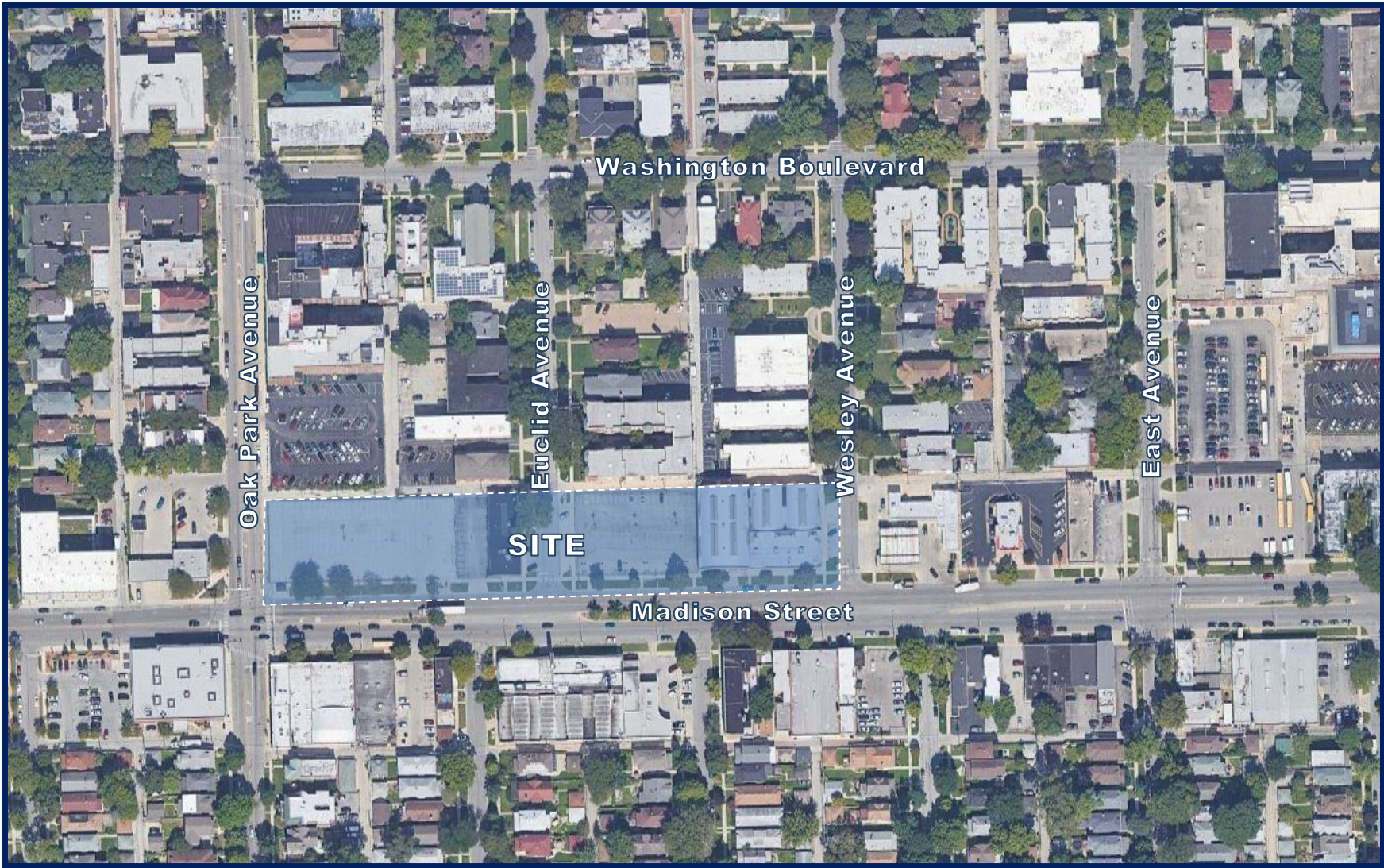
Traffic capacity analyses were conducted for the weekday morning and weekday evening peak hours for the following conditions:

1. Existing Conditions - Analyzes the capacity of the existing roadway system using existing peak hour traffic volumes in the surrounding area.
2. Year 2026 No-Build Conditions – Analyzes the Year 2026 No-Build traffic volumes which include the existing traffic volumes increased by an ambient area growth factor (growth not attributable to any particular development), the traffic estimated to be generated by the recently approved Fenwick High School parking expansion and Senior Living facility to be built on the south side of Madison Street, and the reassignment of existing traffic due to the vacation of Euclid Avenue south of Madison Street and the restriction of Wesley Avenue south of the east-west alley south of Madison Street to one-way northbound as part of the proposed senior living development.
3. Year 2026 Total Projected Conditions – Analyzes the projected Year 2026 traffic volumes which includes the Year 2026 no build volumes, the reassignment of traffic on the north leg of Euclid Avenue as a result of the proposed vacation just north of Madison Street and the traffic estimated to be generated by the proposed development.



Site Location

Figure 1



Aerial View of Site Location

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 roadway system including lane usage and traffic control devices, and existing peak hour traffic volumes.

Site Location

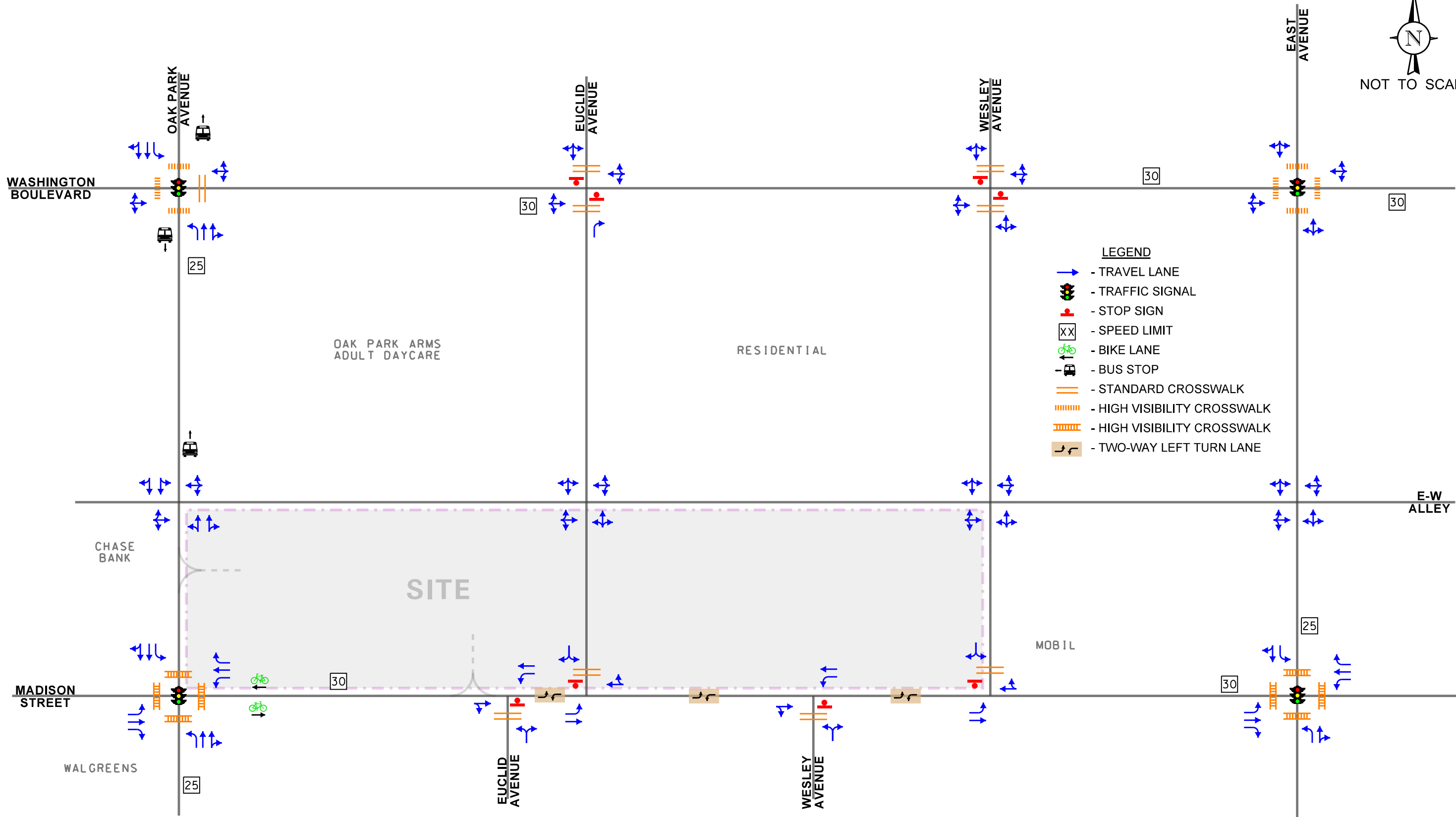
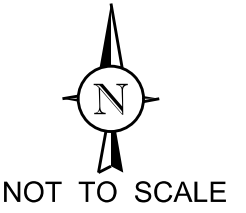
The site, which is currently occupied by a vacant retail building and the former Oak Park public parking lot 116, is bounded by an east-west alley to the north, Wesley Avenue to the east, Madison Street to the south, and Oak Park Avenue to the west. Land uses in the vicinity of the site are primarily residential. Numerous commercial developments are located east and west of the site along Madison Street and the Oak Park Arms senior living/rental retirement community/adult day care facility is located north of the site on the east side of Oak Park Avenue.

Existing Roadway System Characteristics

The characteristics of the existing roadways near the development are described below. **Figure 3** illustrates the existing roadway characteristics.

Madison Street is an east-west, arterial roadway that recently underwent a road diet from Harlem Avenue east to Austin Avenue and as such, it provides one through lane in each direction with dedicated bike lanes on both sides of the road. At its signalized intersection with Oak Park Avenue, Madison Street provides an exclusive left-turn lane, a through lane, and an exclusive right-turn lane on both approaches. At its signalized intersection with East Avenue, Madison Street similarly provides an exclusive left-turn lane, a through lane, and an exclusive right-turn lane on both approaches. At its unsignalized intersections with Euclid Avenue and Wesley Avenue, Madison Street provides one lane in each direction with a two-way left-turn lane (TWLTL). On-street parking along the north and south sides of Madison Street from Oak Park Avenue east to Wesley Avenue is restricted to one-hour Monday through Saturday from 9:00 A.M. to 6:00 P.M. Madison Street is under the jurisdiction of Village of Oak Park and has a posted speed limit of 25 miles per hour.

Oak Park Avenue is north-south, major collector roadway that in the vicinity of the site generally provides one through lane in both directions with on-street parking provided on both sides of the road. At its signalized intersection with Madison Street, Oak Park Avenue provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on both approaches. At its signalized intersection with Washington Boulevard, Oak Park Avenue similarly provides an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on both approaches. No exclusive turn lanes are provided at its unsignalized intersection with the east-west alley. Oak Park Avenue is under the jurisdiction of the Village of Oak Park, carries an annual AADT volume of 12,700 vehicles north of Washington Boulevard and 13,600 vehicles south of Washington Boulevard (IDOT 2018), and has a posted speed limit of 25 miles per hour.



- LEGEND**
- TRAVEL LANE
 - TRAFFIC SIGNAL
 - STOP SIGN
 - SPEED LIMIT
 - BIKE LANE
 - BUS STOP
 - STANDARD CROSSWALK
 - HIGH VISIBILITY CROSSWALK
 - HIGH VISIBILITY CROSSWALK
 - TWO-WAY LEFT TURN LANE

PETE'S FRESH MARKET
OAK PARK, ILLINOIS

EXISTING ROADWAY CHARACTERISTICS

Washington Boulevard is an east-west, major collector roadway that in the vicinity of the site provides one through lane in each direction. No exclusive turn lanes are provided at its signalized intersection with Oak Park Avenue and East Avenue or at its unsignalized intersections with Euclid Avenue and Wesley Avenue. Washington Boulevard is under the jurisdiction of the Village of Oak Park, carries an annual average daily traffic (AADT) volume of 7,850 vehicles east of Oak Park Avenue and 7,950 vehicles west of Oak Park Avenue (IDOT 2018), and has a posted speed limit of 30 miles per hour.

East Avenue a north-south, minor collector roadway that in the vicinity of the site provides one through lane in each direction. At its signalized intersection with Madison Street and with Washington Street, East Avenue provides a shared left/through/right-turn lane on both approaches. East Avenue is under the jurisdiction of the Village of Oak Park, carries an AADT volume of 4,500 vehicles (IDOT 2018) and has a posted speed limit of 25 miles per hour.

Euclid Avenue is a north-south local roadway that has an offset intersection with Madison Street where the south leg is located approximately 100 feet west of the north leg. Both approaches of Euclid Avenue are under stop sign control at their respective intersections with Madison Street. The Village of Oak Park parking lot 71E is located north of Madison Street on the east side of Euclid Avenue. South of Madison Street, parking is restricted to two-hour from 9:00 A.M. to 5:00 P.M. Monday through Saturday on both sides of the road. It should be noted that as part of a recently approved senior housing development on the south side of Madison Street, the south leg of Euclid Avenue will be vacated between Madison Street and the east-west alley immediately south of the senior living site allowing for the building to extend from the west side of Wesley Avenue to approximately 35 feet west of Euclid Avenue. Euclid Avenue is under the jurisdiction of the Village of Oak Park and has a posted speed limit of 25 mph.

Wesley Avenue is a north-south local roadway that provides one lane in each direction and has an offset intersection with Madison Street where the south leg is located approximately 215 feet west of the north leg. Both approaches of Wesley Avenue are under stop sign control. South of Madison Street, parking is restricted to two-hour from 9:00 A.M. to 5:00 P.M. Monday through Saturday on both sides of the road. As part of the Madison Street road diet project, high visibility crosswalks are provided on both approaches. It should be noted that as part of a recently approved senior housing development on the south side of Madison Street, the south leg of Wesley Avenue will be restricted to one-way traffic northbound south of the east-west alley south of Madison Street. Wesley Avenue is under the jurisdiction of the Village of Oak Park and has a posted speed limit of 25 mph.

The east-west alley runs along the north edge of the site and is approximately 10 feet wide. The alley provides the residential land uses to the north with connectivity to Oak Park Avenue, Euclid Avenue, and Wesley Avenue.

Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period classification traffic counts using Miovision Scout Collection Units at the following intersections:

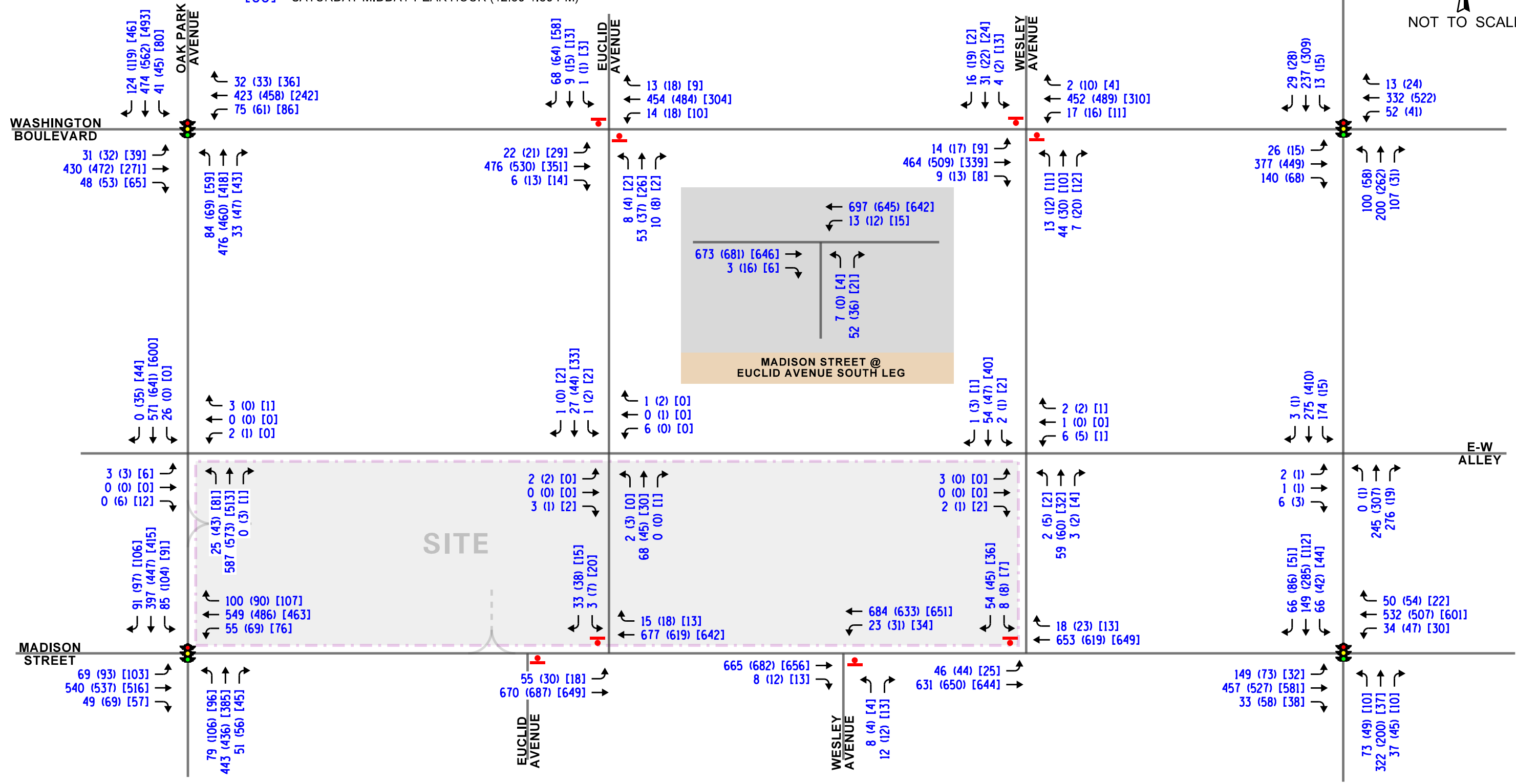
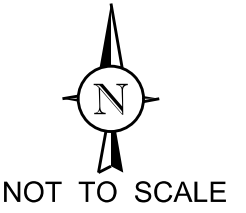
- Oak Park Avenue with Washington Boulevard
- Oak Park Avenue with Madison Street
- Oak Park Avenue with the east-west alley
- Euclid Avenue with Washington Boulevard
- Euclid Avenue with Madison Street
- Euclid Avenue with the east-west alley
- Wesley Avenue with Washington Boulevard
- Wesley Avenue with the east-west alley
- Wesley Avenue with Madison Street

The traffic counts were conducted on Tuesday February 17, 2020 during the weekday morning (7:00 A.M. to 9:00 A.M.) and weekday evening (4:00 P.M. to 6:00 P.M.), and on Saturday February 15, 2020 during the midday (12:00 A.M to 2:00 P.M.) peak periods. Previous traffic counts conducted at the intersection of Madison Street with East Avenue in 2016 were utilized. In addition and as requested by the Village of Oak Park, previous traffic counts conducted in 2018 at the intersections of East Avenue with Washington Boulevard and the east-west alley/Fenwick High School access drive for the Fenwick High School parking garage development were utilized. It is important to note that these additional traffic volumes were adjusted to reflect Year 2020 pre pandemic traffic conditions. Furthermore, no Saturday traffic counts were available at the intersections of East Avenue with Washington Boulevard and the east-west alley/Fenwick High School access drive.

Based on the results of the traffic counts, the weekday morning peak hour of traffic occurs from 7:30 A.M. to 8:30 A.M., the evening peak hour of traffic occurs from 5:00 P.M. to 6:00 P.M., and the Saturday midday peak hour occurs from 12:30 P.M to 1:30 P.M. Copies of the traffic count sheets are included in the Appendix. The existing peak hour vehicle traffic volumes are illustrated in **Figure 4**. The existing peak hour pedestrian and bicycle volumes are illustrated in **Figure 5**.

LEGEND

- 00 - AM PEAK HOUR (7:30-8:30 AM)
- (00) - PM PEAK HOUR (5:00-6:00 PM)
- [00] - SATURDAY MIDDAY PEAK HOUR (12:30-1:30 PM)



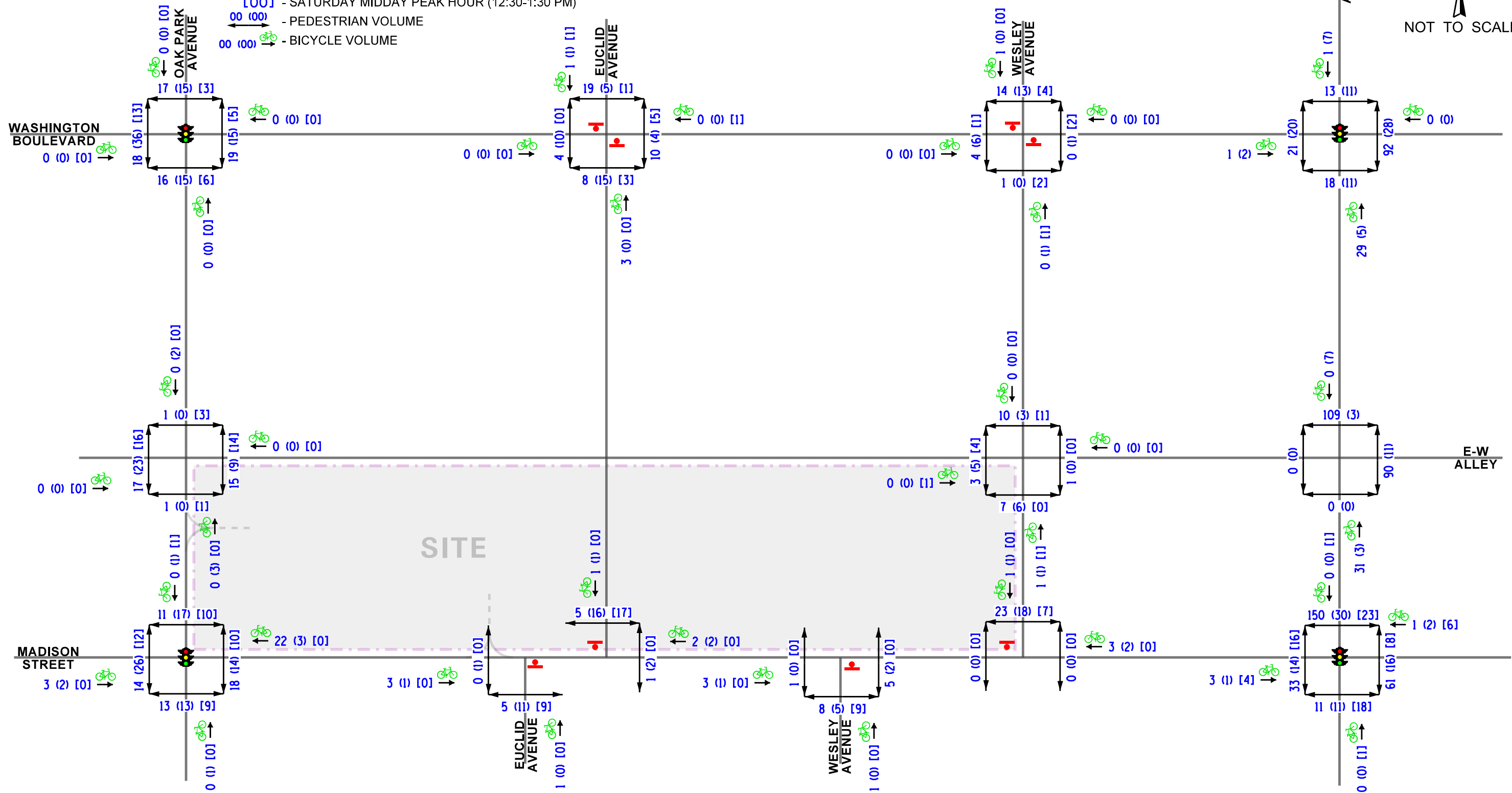
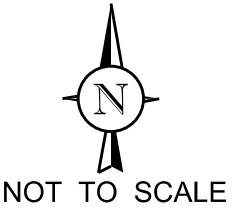
PETE'S FRESH MARKET
OAK PARK, ILLINOIS

EXISTING TRAFFIC VOLUMES



LEGEND

- 00 - AM PEAK HOUR (7:30-8:30 AM)
- (00) - PM PEAK HOUR (5:00-6:00 PM)
- [00] - SATURDAY MIDDAY PEAK HOUR (12:30-1:30 PM)
- 00 (00) - PEDESTRIAN VOLUME
- 00 (00) [00] - BICYCLE VOLUME



PETE'S FRESH MARKET
OAK PARK, ILLINOIS

EXISTING PEDESTRIAN AND BICYCLE 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 Site and Development Plan

As proposed, the site will be developed with an approximately 49,442 square foot Pete's Fresh Market grocery store with approximately 117 surface parking spaces and approximately 114 underground parking spaces for a total of 231 parking spaces. Access to the site will be provided as follows:

- A proposed access drive off Oak Park Avenue that will be located approximately 150 feet north of Madison Street. This access drive will provide one inbound lane and one outbound lane physically restricted to right-turn only movements via a raised triangular median. Outbound movements from the access drive will be under stop sign control.
- A proposed access drive off Madison Street that will be located approximately 300 feet east of Oak Park Avenue. This access drive will provide one inbound lane and one outbound lane physically restricted to right-turn only movements via a raised triangular median. Outbound movements from the access drive will be under stop sign control.

As part of the proposed development, the north leg of Euclid Avenue will be vacated from Madison Street north to the east-west alley and will be cul-de-saced just north of the east-west alley. This vacation will reduce the number of conflict points on Madison Avenue within close proximity and is similar to the recently approved vacation of the south leg of Euclid Avenue as discussed later in the report. In addition, Wesley Avenue will be restricted to northbound traffic only between Washington Boulevard and the east-west public alley via a proposed diverter.

A copy of the preliminary engineering plan depicting the proposed development as well the geometry of the vacated Euclid Avenue is included in the Appendix.

Loading Access

A loading area will be provided on the east side of the building off Wesley Avenue with two loading docks. Delivery trucks will enter and exit the development off Wesley Avenue at its intersection with Madison Street. No trucks will be allowed to travel to/from the north on Wesley Avenue and this restriction will be enforced by a proposed diverter which will be installed as part of the development. This diverter will allow for northbound passenger vehicle movements on Wesley Avenue but will prohibit southbound traffic.

Directional Distribution

The directions from which vehicles will approach and depart the sites were estimated based on existing travel patterns, as determined from the traffic counts. **Figure 6** illustrates the directional distribution of the development-generated traffic.

Peak Hour Traffic Volumes

The number of peak hour trips estimated to be generated by the proposed development was based on vehicle trip generation rates contained in *Trip Generation Manual*, 10th Edition, published by the Institute of Transportation Engineers (ITE). The “Supermarket” (Land-Use Code 850) rate was used for the proposed Pete’s Fresh Market. Copies of the ITE trip generation worksheets are included in the Appendix.

In addition, it is important to note that surveys conducted by ITE have shown that approximately 20 percent of trips made to supermarkets are diverted from the existing traffic on the roadway system. This is particularly true during the weekday morning and evening peak hours when traffic is diverted from the home-to-work and work-to-home trips. As such, the number of new trips to be generated by the supermarket was reduced by 20 percent to account for pass-by traffic. **Table 1** summarizes the vehicle trips projected to be generated by the proposed development and **Table 2** summarizes the pedestrian trips projected to be generated by the proposed development.

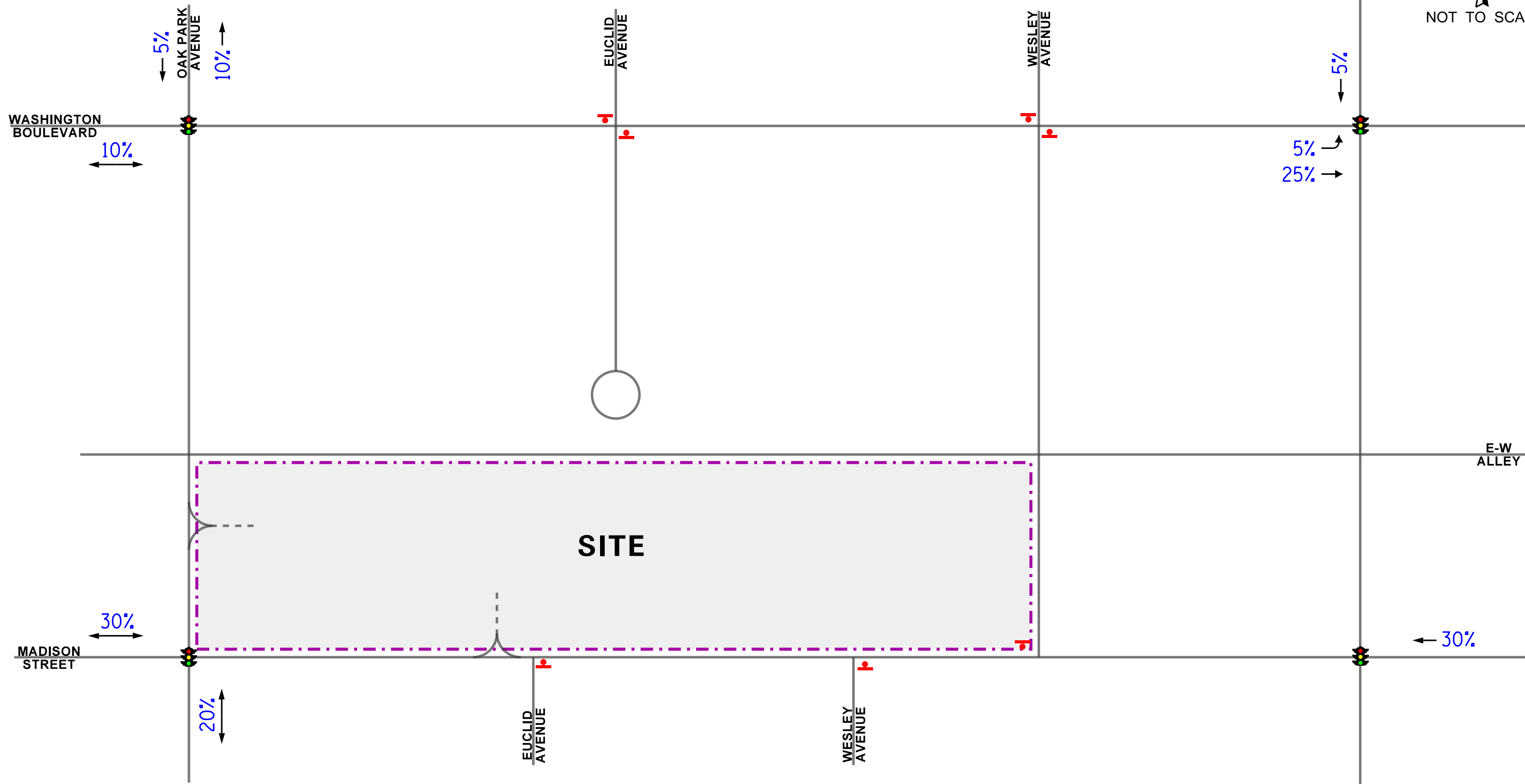
It should be noted that for comparison purposes, KLOA, Inc. requested transaction data of the existing Pete’s Fresh Market in Oak Park, located at 259 Lake Street. Based on the data received, Pete’s Fresh Market has approximately 2,600 transactions per day Monday through Friday and approximately 2,900 transactions per day Saturday through Sunday. Assuming one transaction is equivalent to one trip, that means that Pete’s Fresh Market generates approximately 5,200 total (in/out) daily trips. This is very comparable with the ITE estimate presented on Table 1. The data was further evaluated and during the evening peak period, Pete’s Fresh Market has approximately 220 transactions per hour. Assuming each transaction is one vehicle this translates to 220 inbound vehicles and 220 outbound vehicles for a total of 440 total (in/out) trips. The 220 transactions per hour is approximately 8.5% of the daily transactions. Applying the same rate to the weekend transactions yields approximately 245 inbound trips and 245 outbound trips for a total of 490 trips. Both of these peak hour trip generations are very similar to those presented on Table 1 thus validating the data contained in the ITE Trip Generation Manual.

LEGEND

00% - PERCENT DISTRIBUTION



NOT TO SCALE



PETE'S FRESH MARKET
OAK PARK, ILLINOIS

ESTIMATED DIRECTIONAL DISTRIBUTION



Job No: 20-040

Figure: 6

Table 1
ESTIMATED SITE-GENERATED TRAFFIC VOLUMES

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour			Daily Two-way Traffic
		In	Out	Total	In	Out	Total	In	Out	Total	
850	Supermarket (49,442 s.f.)	113	76	189	233	224	457	260	251	511	5,279
<i>20% Pass-By Reduction</i>		<i>-19</i>	<i>-19</i>	<i>-38</i>	<i>-46</i>	<i>-46</i>	<i>-92</i>	<i>-51</i>	<i>-51</i>	<i>-102</i>	<i>-1,056</i>
New Trips		94	77	151	187	178	365	209	200	409	4,233

Table 2
ESTIMATED SITE-GENERATED PEDESTRIAN VOLUMES

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Saturday Midday Peak Hour ¹			Daily Two-way Traffic
		In	Out	Total	In	Out	Total	In	Out	Total	
850	Supermarket (49,442 s.f.)	25	25	50	20	20	40	25	25	50	5,279

1 – Assumed to be equal to the weekday morning peak hour

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 subject development.

Development Traffic Assignment

The estimated weekday morning and weekday evening peak hour traffic volumes that will be generated by the proposed development were assigned to the roadway system in accordance with the previously described directional distribution (Figure 6). **Figure 7** illustrates the new traffic assignment for the development. As indicated previously, 20 percent of the commercial traffic is projected to be pass-by trips. **Figure 8** illustrates the assignment of the pass-by trips.

Background Traffic Conditions

The existing traffic volumes (Figure 4) were increased or reassigned based on the following to obtain Year 2026 no-build traffic volumes:

- To account for the increase in existing traffic related to regional growth in the area (i.e. not attributable to any particular planned development) for Year 2026 conditions, the existing peak hour traffic volumes on the adjacent roadways were increased by a factor of one percent. This increase percentage was based on population forecasts provided by the Chicago Metropolitan Agency for Planning (CMAP).
- The traffic projected to be generated by the recently approved senior living development to be located in the southwest quadrant of Madison Street with Wesley Avenue. This development is to consist of a senior living building providing 76 independent living units, 65 assisted living units, and 33 memory care units and a surface parking lot with approximately 125 parking spaces. Access will be provided on Madison Street and on Wesley Avenue. As part of the development, Euclid Avenue will be vacated between Madison Street and the east-west alley immediately south of the site and Wesley Avenue south of the east-west alley will be restricted to one-way northbound traffic.
- The traffic projected to be generated by the recently approved Fenwick High School parking garage.

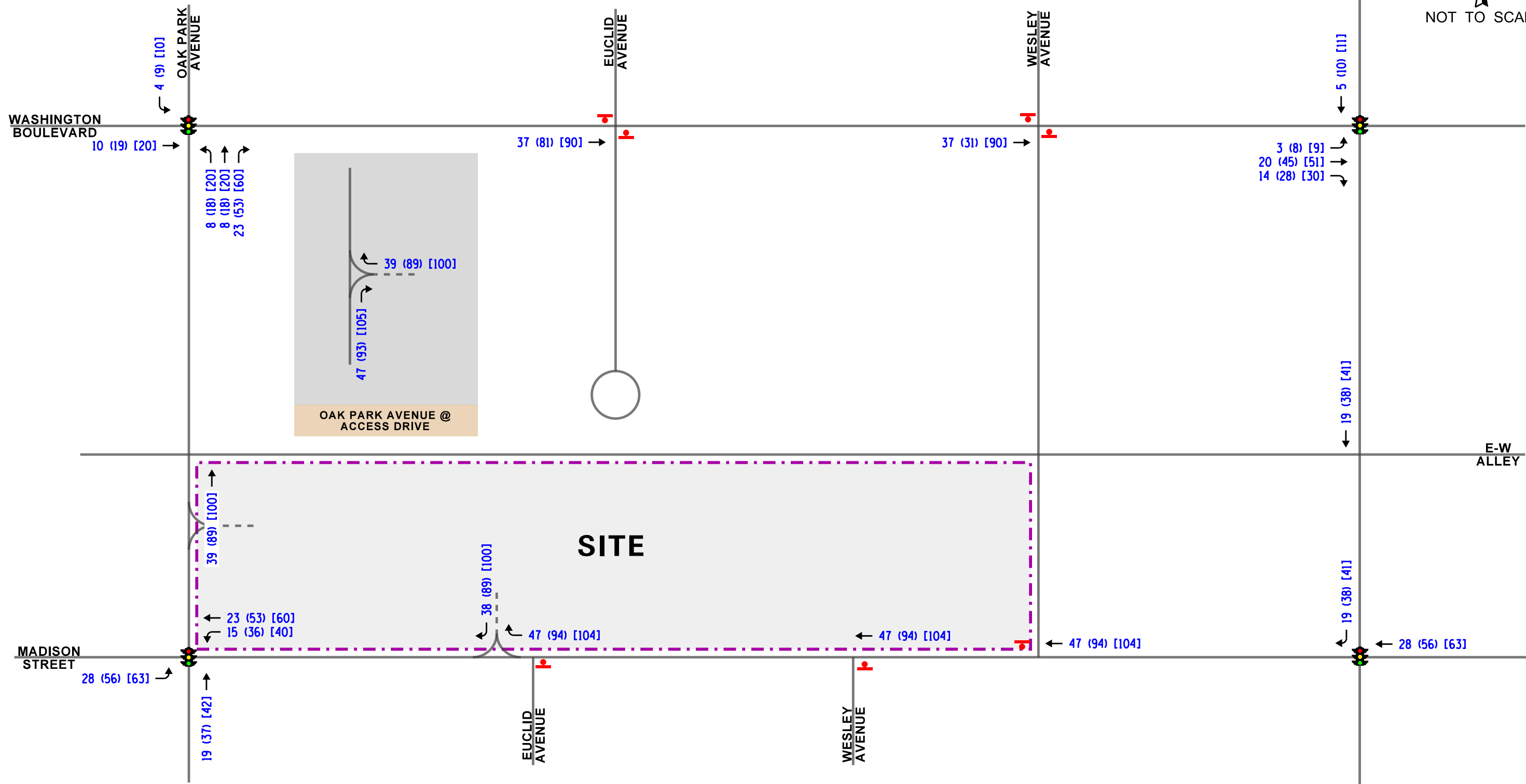
The Year 2026 no-build traffic volumes are illustrated in **Figure 9**.

LEGEND

- 00 - AM PEAK HOUR (7:30-8:30 AM)
- (00) - PM PEAK HOUR (5:00-6:00 PM)
- [00] - SATURDAY MIDDAY PEAK HOUR (12:30-1:30 PM)

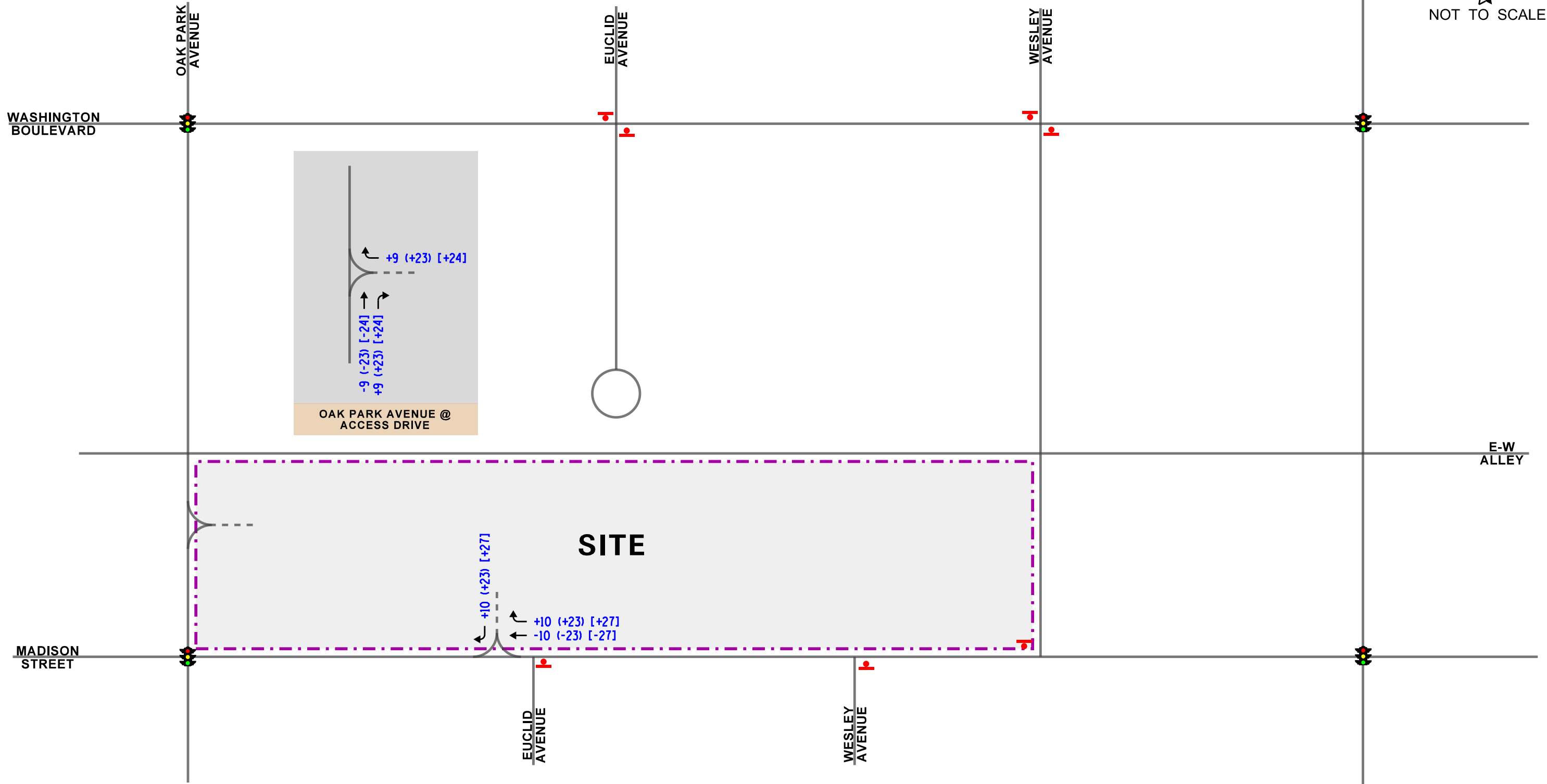
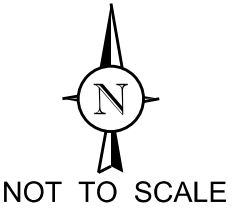


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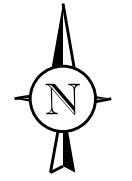
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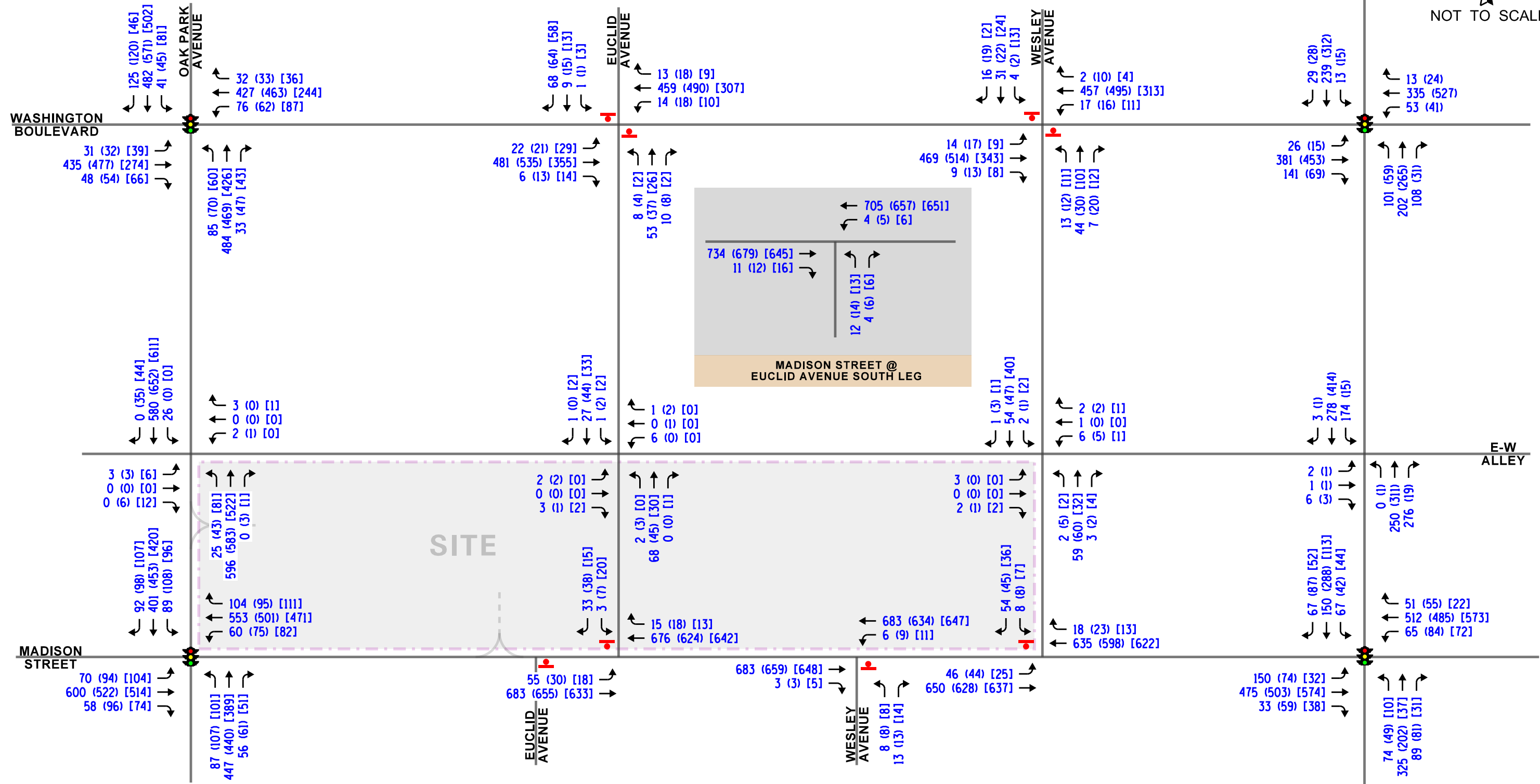


LEGEND

- 00 - AM PEAK HOUR (7:30-8:30 AM)
- (00) - PM PEAK HOUR (5:00-6:00 PM)
- [00] - SATURDAY MIDDAY PEAK HOUR (12:30-1:30 PM)



NOT TO SCALE



PETE'S FRESH MARKET
OAK PARK, ILLINOIS

YEAR 2026 NO-BUILD TRAFFIC VOLUMES



Vacation of Euclid Avenue

As previously mentioned, and as part of the development, Euclid Avenue will be vacated between Madison Street and the east-west alley and will be cul-de-saced just north of the east west-alley. This vacation of Euclid Avenue serves to reduce the number of conflict points on Madison Street within a close proximity and will prevent the flow of development traffic on Euclid Avenue. This vacation is similar to the recently approved vacation of the south leg of Euclid Avenue as part the Senior Living development previously discussed. The reassignment of Euclid Avenue traffic is illustrated in **Figure 10**.

Wesley Avenue Traffic Reassignment

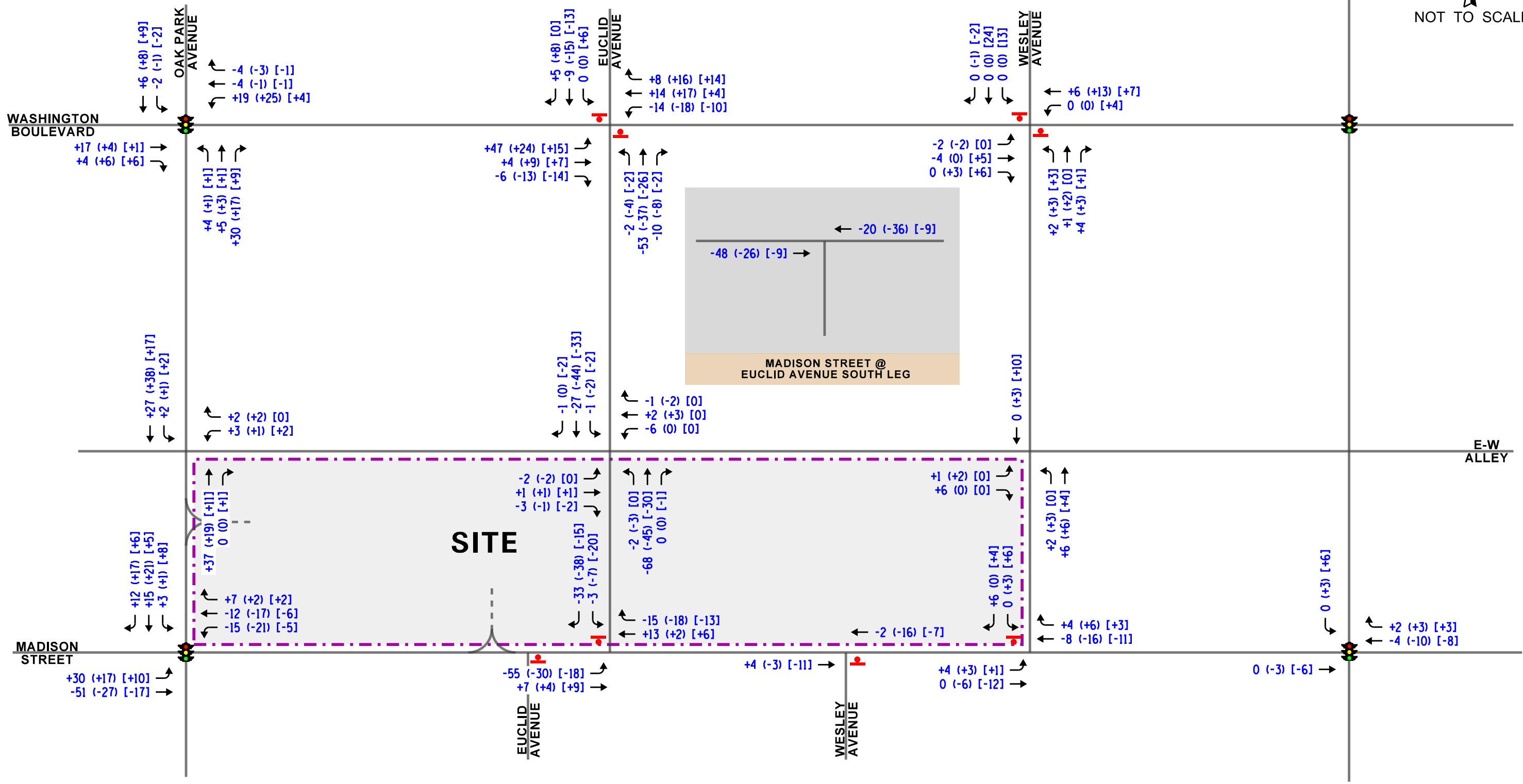
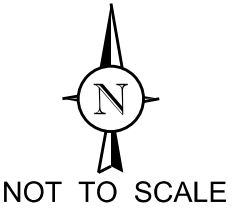
As previously indicated, southbound trips on Wesley Avenue north of the east-west public alley will be restricted via a proposed diverter which will allow for northbound movements only. As a result, the existing southbound traffic on Westley Avenue will be reassigned to the existing roadway network. The reassignment of Wesley Avenue traffic is illustrated in **Figure 11**.

Year 2026 Projected Traffic Volumes

The traffic expected to be generated by the proposed Pete's Fresh Market was added to the Year 2026 no-build traffic volumes, taking into account the vacation of Euclid Avenue and reassignment of Wesley Avenue traffic, to determine the Year 2026 total projected traffic volumes illustrated in **Figure 12**.

LEGEND

- 00 - AM PEAK HOUR (7:30-8:30 AM)
- (00) - PM PEAK HOUR (5:00-6:00 PM)
- [00] - SATURDAY MIDDAY PEAK HOUR (12:30-1:30 PM)

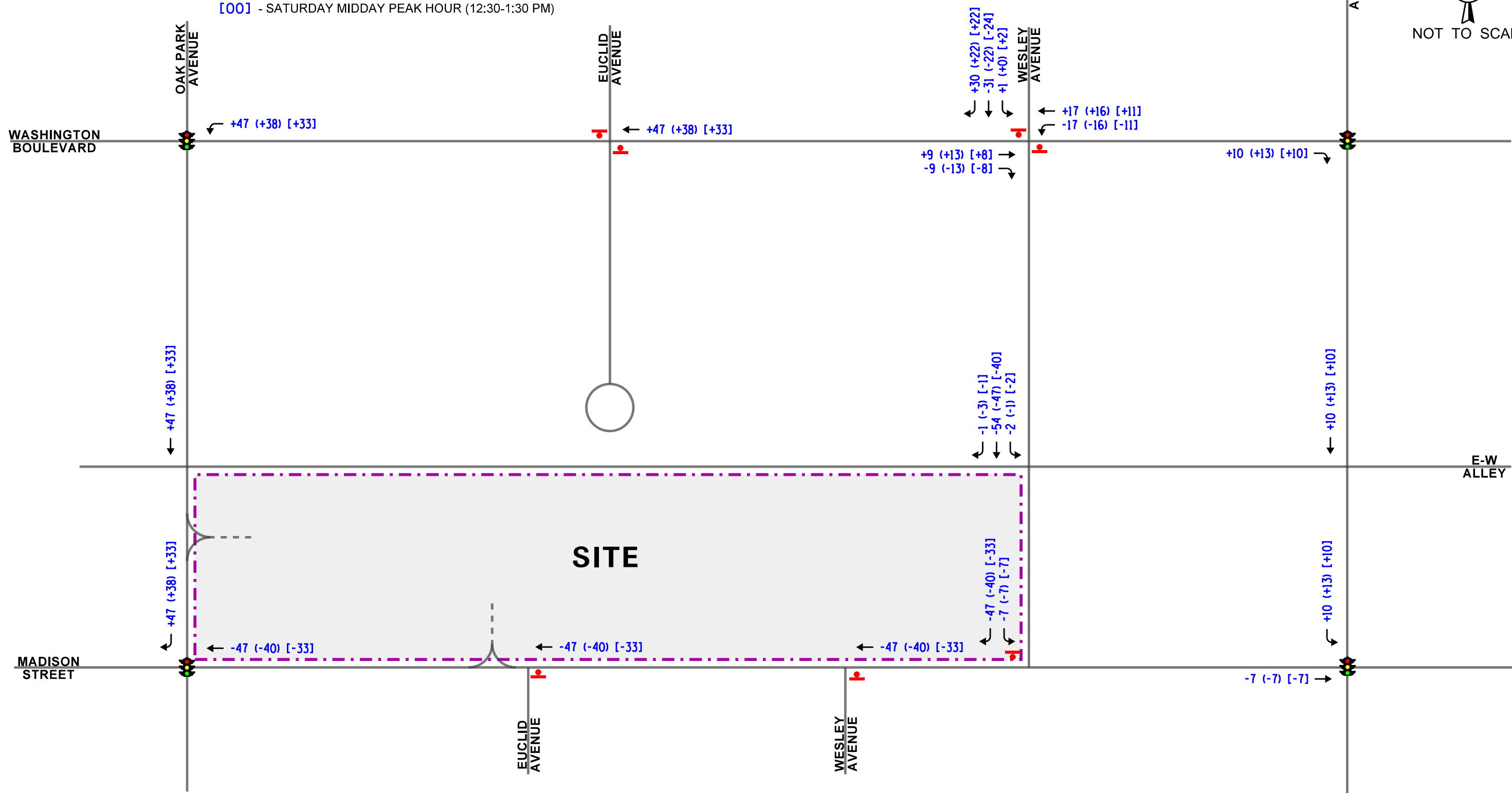


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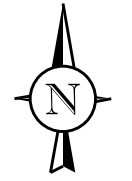


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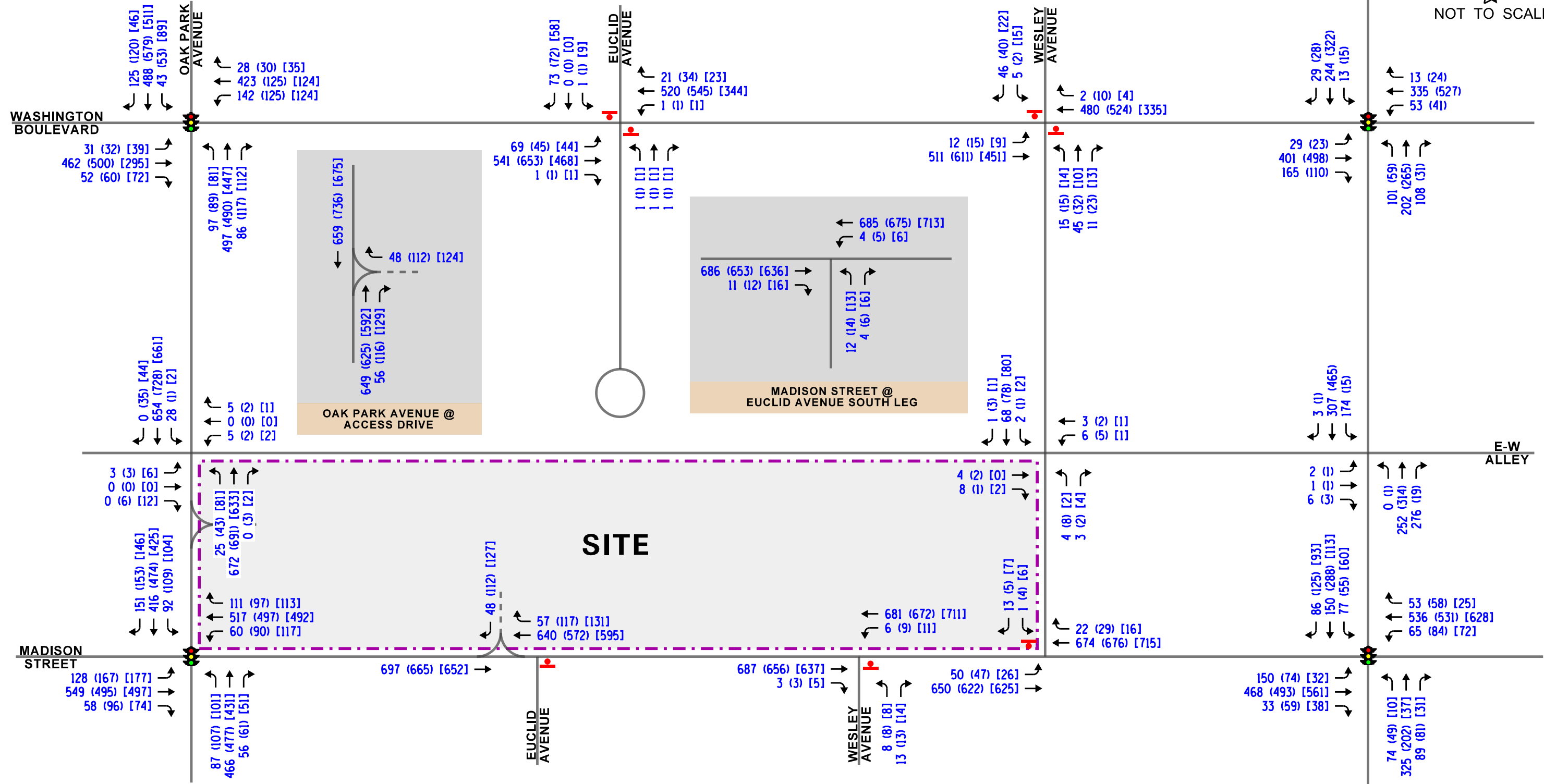


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- 00 - AM PEAK HOUR (7:30-8:30 AM)
- (00) - PM PEAK HOUR (5:00-6:00 PM)
- [00] - SATURDAY MIDDAY PEAK HOUR (12:30-1:30 PM)



NOT TO SCALE



PETE'S FRESH MARKET
OAK PARK, ILLINOIS

YEAR 2026 TOTAL PROJECTED 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 roadway system and access drives are projected to operate and whether any roadway improvements or modifications are required.

Traffic Analyses

Roadway and adjacent or nearby intersection analyses were performed for the weekday morning and weekday evening peak hours for the existing (Year 2020), Year 2026 No-Build, and Year 2026 total projected traffic volumes.

The traffic analyses were performed using the methodologies outlined in the Transportation Research Board's *Highway Capacity Manual (HCM)*, 6th Edition and analyzed using the Synchro/SimTraffic 10 computer software. The analyses for the intersection were analyzed utilizing actual and field measured 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 projected conditions are presented in **Tables 3** through **8**. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 3

CAPACITY ANALYSIS RESULTS – OAK PARK AVENUE WITH MADISON STREET – SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
Year 2020 Existing Traffic Volumes	Weekday Morning Peak Hour	B 13.7	C 33.1	C 20.7	A 6.9	C 29.5	B 13.9	C 24.7	D 45.3		C 25.0	D 44.6		C – 34.3
		C – 30.2			C – 25.5			D – 42.5			D – 41.7			
	Weekday Evening Peak Hour	B 13.7	C 33.4	C 20.4	B 11.0	C 32.8	B 19.9	C 27.2	D 43.8		C 25.9	D 48.3		D – 35.7
		C – 29.5			C – 28.6			D – 40.9			D – 44.7			
	Saturday Midday Peak Hour	B 13.1	C 32.4	B 19.7	A 7.5	C 27.6	B 15.4	C 20.7	C 32.5		B 19.4	D 36.6		C – 28.9
		C – 28.4			C – 23.2			C – 30.4			C – 34.0			
Year 2026 No-Build Traffic Volumes	Weekday Morning Peak Hour	B 14.1	D 38.7	C 21.2	A 7.5	C 30.0	B 14.1	C 25.0	D 45.2		C 25.0	D 44.2		D – 35.5
		C – 34.9			C – 25.8			D – 42.2			D – 41.3			
	Weekday Evening Peak Hour	B 13.9	C 32.8	C 20.7	B 11.4	C 34.0	C 20.4	C 27.4	D 44.2		C 26.3	D 48.6		D – 35.8
		C – 28.7			C – 29.5			D – 41.3			D – 44.9			
	Saturday Midday Peak Hour	B 13.3	C 32.7	B 20.0	A 8.1	C 28.8	B 16.0	C 21.0	C 32.7		B 19.7	D 36.6		C – 29.1
		C – 28.4			C – 24.1			C – 30.5			C – 34.0			
Letter denotes Level of Service L – Left Turns R – Right Turns Delay is measured in seconds. T – Through														

Table 3 - Continued

CAPACITY ANALYSIS RESULTS – OAK PARK AVENUE WITH MADISON STREET – SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
Year 2026 Total Projected Traffic Volumes	Weekday Morning Peak Hour	B 18.0	D 40.3	C 22.8	A 8.2	C 34.6	B 16.7	C 23.0	D 42.3		C 23.1	D 42.0		D – 35.7
		D – 35.1			C – 29.4			D – 39.5			D – 39.3			
	Weekday Evening Peak Hour	B 18.0	C 33.5	C 21.6	B 12.2	D 36.8	C 21.4	C 27.5	D 43.1		C 25.7	D 52.5		D – 37.2
		C – 28.6			C – 31.3			D – 40.5			D – 48.6			
	Saturday Midday Peak Hour	B 18.9	D 35.7	C 20.7	B 10.6	C 33.6	B 17.3	C 20.6	C 32.3		B 19.7	D 36.8		C – 30.5
		C – 30.3			C – 27.3			C – 30.3			C – 34.2			
Letter denotes Level of Service L – Left Turns R – Right Turns Delay is measured in seconds. T – Through														

Table 4

CAPACITY ANALYSIS RESULTS – OAK PARK AVENUE WITH WASHINGTON BOULEVARD – SIGNALIZED

	Peak Hour	Eastbound ¹			Westbound ¹			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
Year 2020 Existing Traffic Volumes	Weekday Morning Peak Hour	C 22.4	D 41.4	D 35.4	D 37.1	B 13.0	B 19.1	B 11.5	C 21.6	C – 28.3				
		D – 40.2			D – 36.9			B – 18.3			C – 21.0			
	Weekday Evening Peak Hour	C 23.8	D 45.1	C 25.6	C 30.8	B 12.2	B 18.4	B 10.8	C 21.6	C – 27.6				
		D – 43.9			C – 30.2			B – 17.6			C – 21.0			
	Saturday Midday Peak Hour	B 18.3	C 29.2	C 23.7	C 25.4	B 10.6	B 17.4	B 10.9	B 16.8	C – 20.3				
		C – 28.1			C – 25.0			B – 16.6			B – 16.1			
Year 2026 No-Build Traffic Volumes	Weekday Morning Peak Hour	C 22.8	D 42.7	D 37.8	D 37.8	B 13.0	B 19.0	B 11.3	C 21.6	C – 28.8				
		D – 41.5			D – 37.8			B – 18.2			C – 21.0			
	Weekday Evening Peak Hour	C 24.1	D 46.2	C 32.0	C 34.1	B 12.2	B 18.4	B 10.7	C 21.8	C – 28.7				
		D – 44.9			C – 33.9			B – 17.7			C – 21.1			
	Saturday Midday Peak Hour	B 18.2	C 29.2	C 23.8	C 25.4	B 10.7	B 17.5	B 11.0	B 18.0	C – 20.7				
		C – 28.1			C – 25.0			B – 16.7			B – 17.1			

Letter denotes Level of Service
 Delay is measured in seconds.
 1 Westbound approach wide enough that it operates as a left-turn lane and a shared through/right-turn lane

L – Left Turns
 T – Through
 R – Right Turns

Table 4 - Continued

CAPACITY ANALYSIS RESULTS – OAK PARK AVENUE WITH WASHINGTON BOULEVARD – SIGNALIZED

	Peak Hour	Eastbound ¹			Westbound ¹			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
Year 2026 Total Projected Traffic Volumes	Weekday Morning Peak Hour	C 20.9	D 36.5	E 60.6	C 30.3	B 15.3	C 22.5	B 12.0	C 24.2	C – 28.9				
		D – 35.6			D – 37.5			C – 21.5					C – 23.4	
	Weekday Evening Peak Hour	C 23.1	D 45.6	E 75.5	C 31.2	B 13.6	C 21.7	B 11.3	C 23.0	C – 30.9				
		D – 44.4			D – 40.2			C – 20.7					C – 22.2	
	Saturday Midday Peak Hour	B 17.6	C 29.4	C 29.5	C 24.1	B 11.6	B 19.0	B 11.8	B 18.7	C – 21.4				
		C – 28.3			C – 25.8			B – 18.0					B – 17.8	
Letter denotes Level of Service Delay is measured in seconds.				L – Left Turns T – Through R – Right Turns										
1 Westbound approach wide enough that it operates as a left-turn lane and a shared through/right-turn lane														

Table 5

CAPACITY ANALYSIS RESULTS –MADISON STREET WITH EAST AVENUE – SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
Year 2020 Existing Traffic Volumes	Weekday Morning Peak Hour	A 8.9	B 11.0	A 0.2	A 9.4	C 28.2	A 4.4	C 34.5	D 53.7		E 61.5	C 33.1		C – 27.9
		A – 10.0			C – 25.3			D – 50.5			D – 39.7			
	Weekday Evening Peak Hour	A 4.2	A 9.0	A 0.2	A 7.7	B 19.0	A 3.1	D 53.0	D 39.5		C 34.7	D 56.5		C – 25.3
		A – 7.7			B – 16.7			D – 41.8			D – 54.3			
	Saturday Midday Peak Hour	A 2.2	A 6.2	A 0.1	A 4.5	B 14.0	A 0.0	C 30.4	C 27.1		C 33.7	D 37.3		B – 13.6
		A – 5.6			B – 13.1			C – 27.7			D – 36.5			
Year 2026 No-Build Traffic Volumes	Weekday Morning Peak Hour	B 10.3	B 13.9	A 0.2	B 10.5	C 29.7	A 4.7	C 32.4	E 60.1		E 77.9	C 31.1		C – 30.9
		B – 12.4			C – 25.7			E – 55.9			D – 42.1			
	Weekday Evening Peak Hour	A 4.2	A 9.3	A 0.3	A 8.1	B 18.7	A 3.2	D 53.5	D 41.7		D 36.3	E 56.7		C – 26.0
		A – 7.9			B – 15.9			D – 43.5			D – 54.7			
	Saturday Midday Peak Hour	A 2.3	A 7.4	A 0.1	A 5.0	B 13.6	A 0.0	C 30.1	C 21.1		C 33.5	D 37.3		B – 13.7
		A – 6.7			B – 12.2			C – 22.3			D – 36.5			
Letter denotes Level of Service L – Left Turns R – Right Turns Delay is measured in seconds. T – Through														

Table 5

CAPACITY ANALYSIS RESULTS –MADISON STREET WITH EAST AVENUE – SIGNALIZED

	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
Year 2026 No-Build Traffic Volumes	Weekday Morning Peak Hour	B 12.5	B 13.0	A 0.1	B 10.4	C 31.3	A 5.1	C 33.3	E 60.1		F 99.6	C 31.5		C – 32.3
		B – 12.2			C – 27.1			E – 56.0			D – 48.3			
	Weekday Evening Peak Hour	A 4.4	A 9.4	A 0.2	A 8.3	C 20.6	A 3.4	E 65.7	D 39.8		D 37.2	E 61.7		C – 28.0
		A – 8.0			B – 17.6			D – 43.6			E – 58.9			
	Saturday Midday Peak Hour	A 2.7	A 8.1	A 0.1	A 5.7	B 16.4	A 0.0	C 28.8	B 19.7		C 33.0	D 35.9		B – 15.5
		A – 7.3			B – 14.8			C – 20.9			D – 35.3			
Letter denotes Level of Service L – Left Turns R – Right Turns Delay is measured in seconds. T – Through														

Table 6

CAPACITY ANALYSIS RESULTS – WASHINGTON BOULEVARD WITH EAST AVENUE – SIGNALIZED

	Peak Hour	Eastbound ¹			Westbound ¹			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
Year 2020 Existing Traffic Volumes	Weekday Morning Peak Hour	D 42.2			C 32.3			F 145.6			C 28.1			E – 63.2
		D – 42.2			C – 32.3			F – 145.6			C – 28.1			
	Weekday Evening Peak Hour	C 28.2			B 18.8			D 52.6			C 33.9			C – 31.0
		C – 28.2			B – 18.8			D – 52.6			C – 33.9			
	Saturday Midday Peak Hour	--			--			--			--			--
		--			--			--			--			
Year 2026 No-Build Traffic Volumes	Weekday Morning Peak Hour	D 43.5			C 32.1			F 151.4			C 28.2			E – 65.3
		D – 43.5			C – 32.1			F – 151.4			C – 28.2			
	Weekday Evening Peak Hour	D 34.6			C 31.9			E 55.0			C 34.0			D – 37.5
		D – 34.6			C – 31.9			E – 55.0			C – 34.0			
	Saturday Midday Peak Hour	--			--			--			--			--
		--			--			--			--			

Letter denotes Level of Service
 Delay is measured in seconds.
 1 Westbound approach wide enough that it operates as a left-turn lane and a shared through/right-turn lane

L – Left Turns
 T – Through
 R – Right Turns

Table 6 - Continued

CAPACITY ANALYSIS RESULTS – WASHINGTON BOULEVARD WITH EAST AVENUE – SIGNALIZED

	Peak Hour	Eastbound ¹			Westbound ¹			Northbound			Southbound			Overall
		L	T	R	L	T	R	L	T	R	L	T	R	
Year 2026 Total Projected Traffic Volumes	Weekday Morning Peak Hour	E 60.5			D 35.1			F 155.0			C 28.5			E – 72.1
		E – 60.5			D – 35.1			F – 155.0			C – 28.5			
	Weekday Evening Peak Hour	D 37.9			C 33.0			E 56.0			D 35.1			D – 39.2
		D – 37.9			C – 33.0			E – 56.0			D – 35.1			
	Saturday Midday Peak Hour	--			--			--			--			--
		--			--			--			--			
Letter denotes Level of Service Delay is measured in seconds. 1 Westbound approach wide enough that it operates as a left-turn lane and a shared through/right-turn lane				L – Left Turns T – Through R – Right Turns										

Table 7

CAPACITY ANALYSIS RESULTS -EXISTING CONDITIONS - UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Washington Boulevard with Euclid Avenue						
• Eastbound Left Turn	A	8.8	A	8.5	A	8.0
• Westbound Left Turn	A	8.7	A	8.7	A	8.1
• Northbound Approach	E	46.8	D	32.0	C	18.0
• Southbound Approach	C	17.0	C	17.6	B	12.8
Washington Boulevard with Wesley Avenue						
• Eastbound Left Turn	A	8.7	A	8.6	A	8.0
• Westbound Left Turn	A	8.7	A	8.6	A	8.1
• Northbound Approach	F	51.8	D	28.0	C	15.7
• Southbound Approach	D	34.5	C	22.1	C	18.2
Madison Street with Euclid Avenue (South Leg)						
• Westbound Left Turn	A	9.1	A	9.3	A	9.1
• Northbound Approach	C	15.7	B	14.9	B	14.5
Madison Street with Euclid Avenue (North Leg)						
• Eastbound Left Turn	A	9.4	A	9.1	A	9.1
• Southbound Approach	C	15.2	C	15.3	C	17.0
Madison Street with Wesley Avenue (South Leg)						
• Westbound Left Turn	A	9.2	A	9.5	A	9.3
• Northbound Approach	C	16.0	C	15.6	C	15.0
Madison Street with Wesley Avenue (North Leg)						
• Eastbound Left Turn	A	9.3	A	9.2	A	9.2
• Southbound Approach	C	15.7	C	15.4	C	15.1
LOS = Level of Service Delay is measured in seconds.						

Table 7 - Continued

CAPACITY ANALYSIS RESULTS -EXISTING CONDITIONS - UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Oak Park Avenue with the East-West Alley						
• Eastbound Approach	D	26.1	C	18.2	C	18.8
• Westbound Approach	C	16.7	D	28.4	B	10.1
• Northbound Left Turn	A	8.8	A	9.6	A	9.4
• Southbound Left Turn	A	8.9	--	--	--	--
Euclid Avenue with the East-West Alley						
• Eastbound Approach	A	8.9	A	9.0	A	8.5
• Westbound Approach	A	9.4	A	8.9	A	7.3
• Northbound Left Turn	A	7.3	A	7.3	--	--
• Southbound Left Turn	A	7.4	A	7.3	--	--
Wesley Avenue with the East-West Alley						
• Eastbound Approach	A	9.5	A	8.7	A	8.6
• Westbound Approach	A	9.7	A	9.3	A	8.8
• Northbound Left Turn	A	7.4	A	7.3	A	7.3
• Southbound Left Turn	A	7.4	A	7.4	A	7.3
East Avenue with the East-West Alley						
• Eastbound Approach	C	18.3	B	12.3	--	--
• Northbound Left Turn	--	--	A	8.2	--	--
• Southbound Left Turn	B	10.7	A	8.1	--	--
LOS = Level of Service Delay is measured in seconds.						

Table 8
 CAPACITY ANALYSIS RESULTS
 YEAR 2026 NO-BUILD CONDITIONS - UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Washington Boulevard with Euclid Avenue						
• Eastbound Left Turn	A	8.8	A	8.6	A	8.0
• Westbound Left Turn	A	8.7	A	8.8	A	8.1
• Northbound Approach	E	48.2	D	32.8	C	18.3
• Southbound Approach	C	17.3	C	18.0	B	12.9
Washington Boulevard with Wesley Avenue						
• Eastbound Left Turn	A	8.8	A	8.6	A	8.0
• Westbound Left Turn	A	8.8	A	8.6	A	8.1
• Northbound Approach	F	54.1	D	28.4	C	15.8
• Southbound Approach	E	35.5	C	22.4	C	18.3
Madison Street with Senior Living Facility Access Drive						
• Westbound Left Turn	A	9.4	A	9.3	A	9.1
• Northbound Approach	C	18.3	C	17.7	C	16.7
Madison Street with Euclid Avenue (North Leg)						
• Eastbound Left Turn	A	9.4	A	9.2	A	9.1
• Southbound Approach	C	15.2	C	15.4	C	16.9
Madison Street with Wesley Avenue (South Leg)						
• Westbound Left Turn	A	9.1	A	9.2	A	9.1
• Northbound Approach	C	15.9	C	15.8	C	15.4
Madison Street with Wesley Avenue (North Leg)						
• Eastbound Left Turn	A	9.2	A	9.1	A	9.1
• Southbound Approach	C	15.5	C	15.0	B	14.8
LOS = Level of Service Delay is measured in seconds.						

Table 8 - Continued
 CAPACITY ANALYSIS RESULTS
 YEAR 2026 NO-BUILD CONDITIONS - UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Oak Park Avenue with the East-West Alley						
• Eastbound Approach	D	26.7	C	18.7	C	19.2
• Westbound Approach	C	17.1	D	29.3	B	10.2
• Northbound Left Turn	A	8.9	A	9.7	A	9.5
• Southbound Left Turn	A	8.9	--	--	--	--
Euclid Avenue with the East-West Alley						
• Eastbound Approach	A	8.9	A	9.0	A	8.5
• Westbound Approach	A	9.4	A	8.9	A	7.3
• Northbound Left Turn	A	7.3	A	7.3	--	--
• Southbound Left Turn	A	7.4	A	7.3	--	--
Wesley Avenue with the East-West Alley						
• Eastbound Approach	A	9.5	A	8.7	A	8.6
• Westbound Approach	A	9.7	A	9.3	A	8.8
• Northbound Left Turn	A	7.4	A	7.4	A	7.3
• Southbound Left Turn	A	7.4	A	7.4	A	7.3
East Avenue with the East-West Alley						
• Eastbound Approach	C	18.5	B	12.3	--	--
• Northbound Left Turn	--	--	A	8.2	--	--
• Southbound Left Turn	B	10.8	A	8.1	--	--
LOS = Level of Service Delay is measured in seconds.						

Table 9
 CAPACITY ANALYSIS RESULTS
 YEAR 2026 TOTAL PROJECTED CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Washington Boulevard with Euclid Avenue						
• Eastbound Left Turn	A	9.4	A	8.9	A	8.2
• Westbound Left Turn	A	8.8	A	9.0	A	8.3
• Northbound Approach	D	33.4	D	30.9	C	18.4
• Southbound Approach	C	15.4	B	14.2	B	13.3
Washington Boulevard with Wesley Avenue						
• Eastbound Left Turn	A	8.8	A	8.7	A	8.1
• Northbound Approach	F	53.0	D	34.0	C	17.9
• Southbound Approach	C	19.2	B	14.3	C	15.4
Madison Street with Senior Living Facility Access Drive						
• Westbound Left Turn	A	9.2	A	9.2	A	9.1
• Northbound Approach	C	17.5	C	17.5	C	17.2
Madison Street with Wesley Avenue (South Leg)						
• Westbound Left Turn	A	9.2	A	9.2	A	9.0
• Northbound Approach	C	16.0	C	16.0	C	15.5
Madison Street with Wesley Avenue (North Leg)						
• Eastbound Left Turn	A	9.5	A	9.6	A	9.5
• Southbound Approach	B	14.4	C	16.6	C	16.8
LOS = Level of Service Delay is measured in seconds.						

Table 9 - Continued
 CAPACITY ANALYSIS RESULTS
 YEAR 2026 TOTAL PROJECTED CONDITIONS – UNSIGNALIZED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour		Saturday Midday Peak Hour	
	LOS	Delay	LOS	Delay	LOS	Delay
Oak Park Avenue with the East-West Alley						
• Eastbound Approach	D	32.1	C	21.8	C	21.7
• Westbound Approach	C	22.2	C	24.8	E	42.2
• Northbound Left Turn	A	9.2	A	10.0	A	9.7
• Southbound Left Turn	A	9.3	A	9.3	A	9.0
Wesley Avenue with the East-West Alley						
• Eastbound Approach	A	8.8	A	9.0	A	8.3
• Westbound Approach	A	9.4	A	9.1	A	8.7
• Northbound Left Turn	A	7.2	A	7.2	A	7.2
Oak Park Avenue with the Site Access Drive						
• Westbound Approach	B	11.2	B	12.3	B	12.3
Madison Street with the Site Access Drive						
• Southbound Approach	B	14.2	C	15.9	C	16.5
East Avenue with the East-West Alley						
• Eastbound Approach	C	19.4	B	12.9	--	--
• Northbound Left Turn	--	--	A	8.4	--	--
• Southbound Left Turn	B	10.8	A	8.1	--	--
LOS = Level of Service Delay is measured in seconds.						

Discussion and Recommendations

The following summarizes how the intersections are projected to operate and identify any roadway and traffic control improvements to accommodate the development traffic.

Oak Park Avenue with Madison Street

The results of the capacity analyses indicate that overall, this intersection currently operates at Level of Service (LOS) C during the weekday morning and Saturday midday peak hours and at LOS D during the weekday evening peak hour. Further, all approaches operate at LOS D or better during all three peak hours, and the eastbound and westbound (Madison Street) approaches operate at LOS C during the peak hours. Under Year 2026 No-Build conditions, this intersection is projected to operate at LOS D during the weekday morning and weekday evening peak hours and at LOS C during the Saturday midday peak hour with increases in delay of approximately one second or less. All approaches are projected to continue to operate at the same LOS during the peak hours.

Under Year 2026 total projected conditions, this intersection is projected to continue to operate at LOS D during the weekday morning and weekday evening peak hours and at LOS C during the Saturday midday peak hours with increases in delay of approximately two seconds or less over no-build conditions. Further, all approaches are projected to continue to operate at LOS D or better and eastbound and westbound (Madison Street) approaches are projected to operate at LOS C or better with the exception of the westbound approach during the weekday morning peak hour which is expected to operate at LOS D. As such, this intersection generally has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed development and no geometric or traffic control improvements will be required.

Oak Park Avenue with Washington Boulevard

The results of the capacity analyses indicate that overall, this intersection currently operates at LOS C during the weekday morning, weekday evening, and Saturday midday peak hours. Furthermore, all approaches operate at LOS D or better during all three peak hours. Under Year 2026 No-Build conditions, this intersection is projected to continue to operate at LOS C during the weekday morning, weekday evening and Saturday midday peak hours with increases in delay of approximately one second.

Under Year 2026 total projected conditions, this intersection is projected to continue to operate at LOS C during the weekday morning, weekday evening, and Saturday midday peak hours with increase in delay of less than one second over existing conditions. Further, all approaches are projected to continue to operate at LOS D or better. As such, this intersection generally has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed development and no geometric or traffic control improvements will be required.

Madison Street with East Avenue

The results of the capacity analyses indicate that overall, this intersection currently operates at LOS C during the weekday morning and weekday evening peak hours and at LOS B during the Saturday midday peak hour. Further, all approaches operate at LOS D or better during all three peak hours, and the eastbound and westbound (Madison Street) approaches operate at LOS C or better during the peak hours. Under Year 2026 No-Build conditions, this intersection is projected to continue to operate at LOS C during the weekday morning and weekday evening peak hours and LOS B during the Saturday midday peak hour with an increase in delay of approximately three seconds or less. It important to note that the southbound left turn movement operates at LOS E during the weekday morning peak hour. These results are similar and consistent with those documented and approved in the Madison Street Road Diet traffic study.

Under Year 2026 total projected conditions, this intersection is projected to continue to operate at LOS C during the weekday morning and weekday evening peak hours and LOS B during the Saturday midday peak hour with an increase in delay two seconds or less over no-build conditions. Further, the eastbound and westbound (Madison Street) approaches are projected to operate at LOS C or better and the northbound and southbound (East Avenue) approaches are projected to operate at LOS E or better. As such, this intersection generally has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed development and no geometric or traffic control improvements will be required.

Washington Boulevard with East Avenue

The results of the capacity analyses indicate that overall, this intersection currently operates at LOS E during the weekday morning peak hour and LOS C during the weekday evening and Saturday Midday peak hours. This low LOS during the weekday morning peak hour is primarily due to the high volume of traffic at this intersection given its proximity to Fenwick High School and the fact that all approaches are served by a single lane. Under Year 2026 No Build Conditions, the intersection will continue to operate at the same LOS during the weekday morning peak hour and at a LOS D during the weekday evening peak hour. Under Year 2026 total projected conditions the intersection will continue operating at the same overall LOS as under Year 2026 no-build conditions with increases in overall delay of seven seconds or less.

In order to reduce the delays experienced at this intersection, improve east-west traffic flow and as recommended on the Fenwick High School Parking Garage traffic study dated 2/1/2019, it is recommended to move the “No Parking from here to corner” signs on both the eastbound and westbound approaches an additional 50 feet back to allow vehicles that want to continue traveling through to by-pass a stopped vehicle. By implementing this recommended improvement, the capacity analysis shows that the delay for the eastbound shared through/left-turn movement is significantly reduced during the weekday morning peak hour. Furthermore, the existing parking restriction on the north side Washington Boulevard east of East Avenue should be extended to be from 7:00 to 9:00 A.M. and from 4:00 to 6:00 P.M. It is important to note that the influx of traffic and queuing occurs for a short period of time and dissipates once school begins in the morning and shortly after school is dismissed in the afternoon. The analyses show that the intersection operates at good levels of service during the weekday evening peak hour when FHS is not in session.

As such, this intersection generally has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed development and no geometric or traffic control improvements will be required.

Washington Boulevard with Euclid Avenue

The results of the capacity analysis indicate that under existing conditions, the northbound approach operates at LOS E during the weekday morning peak hour, LOS D during the weekday evening peak hour, and LOS C during the Saturday midday peak hour and the southbound approach operates at LOS C during the weekday morning and weekday evening peak hours and LOS B during the Saturday midday peak hours. Further, eastbound and westbound left-turn movements operate at LOS A or better during all three peak hours. Under Year 2026 no build condition conditions, all movements are projected to operate at the same LOS during all three peak hours with an increase in delay of less than two seconds.

Under Year 2026 total projected conditions, Euclid Avenue will no longer provide connection to Madison Street, and, as such, will carry a much lower volume of traffic as vehicles traveling to and from the south leg of this intersection will be local traffic only. As a result, all movements are projected to operate at an improved LOS D or better. The traffic that previously traveled Euclid Avenue will be required to utilize other area roadways such as Oak Park Avenue and East Avenue, which, as previously discussed, are projected to continue to operate at a good level of service.

Washington Street with Wesley Avenue

The results of the capacity analysis indicate that under existing conditions, the northbound approach operates at LOS F during the weekday morning peak hour, LOS D during the weekday evening peak hour, and LOS C during the Saturday midday peak hour and the southbound approach operates at LOS D during the weekday morning peak hour and LOS C during the weekday evening and Saturday midday peak hours. Further, eastbound and westbound left-turn movements operate at LOS A or better during all three peak hours. Under Year 2026 no build conditions, all movements will continue to operate at the same LOS during the peak hours with the exception of the southbound approach which will operate at LOS E during the weekday morning peak hour.

Under Year 2026 total projected conditions, the proposed diverter will restrict all southbound movements on Wesley Avenue, north of the east-west alley which will significantly decrease the southbound traffic volume at Washington Street, thus maintaining the LOS for the northbound approach. The traffic that previously traveled southbound on Wesley Avenue from Washington Street will be required to utilize other area roadways such as Oak Park Avenue and East Avenue, which, as previously discussed, are projected to continue to operate at a good level of service. Given this proposed restriction, all of the vehicles coming from the north will travel south on East Avenue rather than Wesley Avenue as it provides a traffic signal at its intersection with Madison Street. Based on the results of the capacity analyses, this intersection generally has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed development and no geometric or traffic control improvements will be required.

Madison Street with Euclid Avenue (North and South Legs)

The results of the capacity analysis indicate that under existing conditions, the northbound and southbound approaches of Euclid Avenue operate at LOS C or better during the weekday morning, weekday evening, and Saturday midday peak hours. Further, eastbound and westbound left-turn movements onto Euclid Avenue operate at LOS A during all three peak hours with 95th percentile queues of one to two vehicles which can be accommodated within the existing the left-turn lanes on Madison Street. Under Year 2026 no build conditions, the south leg of Euclid Avenue will be vacated south of Madison Street and replaced with an access drive serving the proposed Senior Living Facility. Both the access drive and north leg of Euclid Avenue are projected to operate at LOS C during all three peak hours and eastbound and westbound left-turn movements are projected to continue to operate at LOS A during the peak hours. Under Year 2026 total projected conditions, the north leg of Euclid Avenue will be vacated. The Senior Living Facility Access Drive is projected to continue to operate at LOS C or better during all three peak hours and westbound left-turn movements are projected to continue to operate at LOS A during the peak hours. As previously mentioned, the traffic traveling this portion of Euclid Avenue has been redistributed to other area roadways which will continue to operate at a good level of service. As such, the vacation of both segments of Euclid Avenue will not negatively impact traffic operations of area roadways.

Madison Street with Wesley Avenue (North and South Legs)

The results of the capacity analysis indicate that under existing conditions, the northbound and southbound approaches operate at LOS C during the weekday morning, weekday evening, and Saturday midday hours. Further, eastbound and westbound left-turn movements operate at LOS A or better during all three peak hours with 95th percentile queues of one to two vehicles which can be accommodated within the existing left-turn lanes on Madison Street.

Under both Year 2026 no build conditions and Year 2026 total projected conditions, the northbound and southbound approaches are projected to continue to operate at LOS C during all three peak hours and left-turn movements are projected to continue to operate at LOS A. As such, this intersection generally has sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed development and no geometric or traffic control improvements will be required.

The East-West Alley with Oak Park Avenue, Euclid Avenue, Wesley Avenue and East Avenue

The results of the capacity analysis indicate that under existing conditions, outbound movements from the east-west alley to the surrounding roadways operate at LOS D or better during the weekday morning, weekday evening, and Saturday midday peak hours. Further, northbound and southbound left-turn movements into the alley operate at LOS A during all three peak hours. Under Year 2026 no build conditions, all movements at these intersections are projected to operate at the same LOS during all three peak hours with increases in delay of less than one second.

Under Year 2026 total projected conditions, the north leg of Euclid Avenue will be vacated and will be cul-de-saced north of the east-west alley. As such, all alley traffic will be required to exit on to Oak Park Avenue or Wesley Avenue. As can be seen, outbound movements from the alley are projected to continue to operate at LOS E or better, and inbound movements from Oak Park Avenue and Wesley Avenue are projected to continue to operate at LOS A. As such, the intersections of the east-west alley with area roadways generally have sufficient reserve capacity to accommodate the traffic projected to be generated by the proposed development as well the redistribution of traffic associated with the vacation of Euclid Avenue and Wesley Avenue and no geometric or traffic control improvements will be required.

Oak Park Avenue with the Proposed Access Drive

As proposed, the site will be served by a restricted right-in/right-out access drive on Oak Park Avenue located approximately 150 feet north of Madison Street. This access drive will provide one inbound and one outbound lane restricted to right-turn movements.

Under Year 2026 projected conditions, the proposed access drive is projected to operate at LOS B during the weekday morning, weekday evening, and Saturday midday peak hours. As such, the proposed access drive will adequately accommodate site-generated traffic and serve to provide efficient access to the site.

Madison Street with the Proposed Access Drive

As proposed, the site will be served by a restricted right-in/right-out access drive on Madison Street Avenue located approximately 300 feet east of Oak Park Avenue. This access drive will provide one inbound and one outbound lane restricted to right-turn movements.

Under Year 2026 projected conditions, the proposed access drive is projected to operate at LOS B during the weekday morning peak hour and LOS C during the weekday evening and Saturday midday peak hours. As previously mentioned, westbound queues on Madison Street may extend to the location of the proposed access drive. However, the westbound approach operates at a good level of service, and these queues are projected to clear the location of the access drive with each green cycle allowing vehicles to exit. As such, the proposed access drive will adequately accommodate site-generated traffic and serve to provide efficient access to the site.

Parking Evaluation

The proposed parking supply was compared to the Village of Oak Park Code and information published in the *ITE Parking Generation Manual*, 5th Edition to determine its adequacy in accommodating the projected peak parking demand.

Village Code Requirements

Based on the Village of Oak Park Code, a grocery store is required to provide parking at a ratio of One (1) parking spaces per 500 square-feet. With a total of 49,442 square-feet a total of 99 parking spaces are required. As proposed, the site will provide a total of 231 parking spaces, exceeding Village Code by 132 spaces.

ITE Parking Requirements

The peak parking demand of the proposed development for a Friday and Saturday was estimated utilizing information published in the *ITE Parking Generation Manual*, 5th Edition. The parking estimated to be generated by the approximately 49,442 square-foot grocery store was based on land use code 850 (Supermarket). Based on the *ITE Parking Generation Manual*, a 49,442 square foot grocery store will have a peak parking demand of 140 parked vehicles on a weekday and 180 vehicles on a Saturday. This demand is inclusive of customers and employees. As such, the proposed number of parking spaces will be adequate to accommodate the projected peak parking demand of the grocery store. Copies of the *ITE Parking Generation* graphs are included in the Appendix.

Existing Pete's Fresh Market

For comparison purposes, KLOA, Inc. reviewed the transaction data of the existing Pete's Fresh Market in Oak Park, located at 259 Lake Street. As previously indicated and based on the received data, Pete's Fresh Market has approximately 220 transactions per hour during the evening peak hour. In addition, there will be approximately 65 employees per shift. Conservatively assuming most customers spend approximately 30 to 45 minutes at the store and that all of the employees will drive a vehicle that means that the parking lot will have a projected parking demand during the peak hours of approximately 175 vehicles which is comparable to the estimates calculated using ITE rates and can be accommodated by the proposed number of parking spaces.

6. Conclusion

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

- The volume of traffic generated by the proposed Pete's Fresh Market will be reduced as some traffic will be pass-by traffic and will not be new to the study area.
- The development-generated traffic will not have a significant impact on area roadways or intersections.
- The vacation of Euclid Avenue from Madison Street south to the southern east-west alley as part of the senior living development and from Madison Street north to the east-west alley north of the site will have a minimal impact on traffic conditions in the area and the rerouted traffic can be accommodated by the adjacent roadways and intersections.
- The proposed diverter on Wesley Avenue preventing southbound traffic north of the east-west alley will have a minimal impact on traffic conditions in the area and the rerouted traffic can be accommodated by the adjacent roadways and intersections.
- Providing access off Madison Street and Oak Park Avenue will serve to provide efficient and flexible access.
- The proposed access drives will have sufficient capacity to accommodate site-generated traffic.
- The proposed number of parking spaces will exceed the Village of Oak Park parking requirements and will be adequate to accommodate the projected peak parking demand on a weekday and a weekend.

Appendix

Traffic Count Summary Sheets
Preliminary Engineering Plans
ITE Trip Generation Sheets
Level of Service Table
Capacity Analysis Summary Sheets

Traffic Count Summary Sheets



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

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Euclid Avenue with Public Alley
Site Code:
Start Date: 02/15/2020
Page No: 1

Turning Movement Data

Start Time	Public Alley Eastbound					Public Alley Westbound					Euclid Avenue Northbound					Euclid Avenue Southbound												
	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	Int. Total			
12:00 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	25	0	0	0	0	25	0	0	8	0	0	0	8	34
12:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	8	0	0	1	8	1	0	4	0	0	0	5	13	
12:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	9	0	0	1	9	0	0	3	1	2	4	13		
12:45 PM	0	0	0	2	3	2	0	0	0	0	1	0	0	0	5	0	1	5	0	1	9	1	0	11	18			
Hourly Total	0	0	0	3	5	3	0	0	0	0	1	0	0	0	47	0	3	47	1	1	24	2	2	28	78			
1:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	1	0	8	0	0	7	0	0	7	15			
1:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	3	8	0	1	8	0	0	9	17			
1:30 PM	0	0	1	1	0	2	0	0	0	0	0	0	0	0	11	0	0	11	0	0	7	0	0	7	20			
1:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	11	1	1	13	0	1	12	1	0	14	27			
Hourly Total	0	0	1	1	1	2	0	0	0	0	0	0	0	1	37	2	4	40	0	2	34	1	0	37	79			
BREAK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
7:00 AM	0	0	0	1	2	1	0	2	0	0	0	2	0	0	6	0	1	6	0	0	6	0	1	6	15			
7:15 AM	0	0	0	1	3	1	0	1	0	0	0	1	0	0	13	0	0	13	1	0	3	1	0	5	20			
7:30 AM	0	0	0	0	0	0	0	3	0	1	1	4	0	0	23	0	4	23	0	0	6	0	0	6	33			
7:45 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	1	24	0	3	25	0	0	9	1	0	10	36			
Hourly Total	0	0	0	3	5	3	0	6	0	1	1	7	0	1	66	0	8	67	1	0	24	2	1	27	104			
8:00 AM	0	0	0	1	0	1	0	1	0	0	0	1	0	0	11	0	1	11	0	0	4	0	1	4	17			
8:15 AM	0	2	0	1	0	3	0	2	0	0	2	4	1	0	9	0	1	10	0	1	8	0	0	9	24			
8:30 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	11	1	0	12	0	0	4	2	0	6	19			
8:45 AM	0	0	1	0	0	1	0	0	0	0	0	0	0	2	9	0	0	11	0	0	3	0	0	3	15			
Hourly Total	0	2	1	3	0	6	0	3	0	0	3	7	1	2	40	1	2	44	0	1	19	2	1	22	75			
BREAK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	0	1	8	0	0	5	0	0	5	13			
4:15 PM	0	0	0	1	1	1	0	0	0	0	0	0	0	0	5	0	2	5	0	0	6	0	0	6	12			
4:30 PM	0	0	0	1	1	1	0	0	0	0	0	0	0	0	6	0	0	6	0	0	5	0	0	5	12			
4:45 PM	0	0	0	1	0	1	0	0	0	0	0	0	0	0	8	0	0	8	0	0	6	0	0	6	15			
Hourly Total	0	0	0	3	2	3	0	0	0	0	0	0	0	0	27	0	3	27	0	0	22	0	0	22	52			
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	10	0	1	10	0	0	10	0	0	10	20			
5:15 PM	0	1	0	1	0	2	0	0	0	1	1	1	0	2	9	0	0	11	0	0	8	0	2	8	22			
5:30 PM	0	1	0	0	1	1	0	0	0	1	0	1	0	1	8	0	1	9	0	2	9	0	0	11	22			
5:45 PM	0	0	0	0	1	0	0	0	1	0	0	1	0	0	11	0	0	11	0	0	11	0	0	11	23			
Hourly Total	0	2	0	1	3	3	0	0	1	2	1	3	0	3	38	0	2	41	0	2	38	0	2	40	87			
Grand Total	0	4	2	14	16	20	0	9	1	3	3	13	1	7	255	3	22	266	2	6	161	7	6	176	475			
Approach □	0.0	20.0	10.0	70.0	-	-	0.0	69.2	7.7	23.1	-	-	0.4	2.6	95.9	1.1	-	-	1.1	3.4	91.5	4.0	-	-	-			
Total □	0.0	0.8	0.4	2.9	-	4.2	0.0	1.9	0.2	0.6	-	2.7	0.2	1.5	53.7	0.6	-	56.0	0.4	1.3	33.9	1.5	-	-	37.1			

Lights	0	4	2	14	-	20	0	9	1	2	-	12	1	7	243	3	-	254	2	5	153	7	167	453	
□ Lights	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	66.7	-	92.3	100.0	100.0	95.3	100.0	-	95.5	100.0	83.3	95.0	100.0	-	94.9	95.4
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	1	0	-	1	3
□ Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.8	0.0	-	0.8	0.0	0.0	0.6	0.0	-	0.6	0.6
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	1	-	1	0	0	4	0	-	4	0	0	4	0	-	4	9
□ Single-Unit Trucks	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	33.3	-	7.7	0.0	0.0	1.6	0.0	-	1.5	0.0	0.0	2.5	0.0	-	2.3	1.9
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	0.0
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	6	0	-	6	0	1	3	0	-	4	10
□ Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	2.4	0.0	-	2.3	0.0	16.7	1.9	0.0	-	2.3	2.1
Pedestrians	-	-	-	-	16	-	-	-	-	-	3	-	-	-	-	-	22	-	-	-	-	-	6	-	-
□ 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

Count Name: Euclid Avenue with Public Alley
Site Code:
Start Date: 02/15/2020
Page No: 4

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Public Alley Eastbound					Public Alley Westbound					Euclid Avenue Northbound					Euclid Avenue Southbound										
	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	Int. Total	
7:30 AM	0	0	0	0	0	0	0	3	0	0	1	4	0	0	23	0	0	4	23	0	0	6	0	0	6	33
7:45 AM	0	0	0	1	0	1	0	0	0	0	0	0	0	1	24	0	3	25	0	0	9	1	0	10	36	
8:00 AM	0	0	0	1	0	1	0	1	0	0	0	1	0	0	11	0	1	11	0	0	4	0	1	4	17	
8:15 AM	0	2	0	1	0	3	0	2	0	0	2	2	1	0	9	0	1	10	0	1	8	0	0	9	24	
Total	0	2	0	3	0	5	0	6	0	1	7	7	1	1	67	0	9	69	0	1	27	1	1	29	110	
Approach <input type="checkbox"/>	0.0	40.0	0.0	60.0	-	-	0.0	85.7	0.0	14.3	-	-	1.4	1.4	97.1	0.0	-	-	0.0	3.4	93.1	3.4	-	-	-	
Total <input type="checkbox"/>	0.0	1.8	0.0	2.7	-	4.5	0.0	5.5	0.0	0.9	-	6.4	0.9	0.9	60.9	0.0	-	62.7	0.0	0.9	24.5	0.9	-	26.4	-	
PHF	0.000	0.250	0.000	0.750	-	0.417	0.000	0.500	0.000	0.250	-	0.438	0.250	0.250	0.698	0.000	-	0.690	0.000	0.250	0.750	0.250	-	0.725	0.764	
Lights <input type="checkbox"/>	0	2	0	3	0	5	0	6	0	0	6	6	1	1	63	0	6	65	0	1	25	1	0	27	103	
<input type="checkbox"/> Lights	-	100.0	-	100.0	-	100.0	-	100.0	-	0.0	-	85.7	100.0	100.0	94.0	-	-	94.2	-	100.0	92.6	100.0	-	93.1	93.6	
Buses <input type="checkbox"/>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	
<input type="checkbox"/> Buses	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	0.0	-	-	0.0	-	0.0	3.7	0.0	-	3.4	0.9	
Single-Unit Trucks <input type="checkbox"/>	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0	0	1	0	0	0	0	0	0	2	
<input type="checkbox"/> Single-Unit Trucks	-	0.0	-	0.0	-	0.0	-	0.0	-	100.0	-	14.3	0.0	0.0	1.5	-	-	1.4	-	0.0	0.0	0.0	-	0.0	1.8	
Articulated Trucks <input type="checkbox"/>	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	
<input type="checkbox"/> 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	
Bicycles on Road <input type="checkbox"/>	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	3	0	0	1	0	0	1	4	
<input type="checkbox"/> Bicycles on Road	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	4.5	-	-	4.3	-	0.0	3.7	0.0	-	3.4	3.6	
Pedestrians <input type="checkbox"/>	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	9	-	-	-	-	-	1	-	-	
<input type="checkbox"/> Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	



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Count Name: Euclid Avenue with Public Alley
Site Code:
Start Date: 02/15/2020
Page No: 5

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Public Alley Eastbound					Public Alley Westbound					Euclid Avenue Northbound					Euclid Avenue Southbound																	
	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	Int. Total								
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	10	0	0	1	10	0	0	10	0	0	0	10	0	0	8	0	2	8	22
5:15 PM	0	1	0	1	0	2	0	0	0	1	1	1	0	2	9	0	0	0	11	0	0	8	0	0	2	8	0	2	9	0	0	11	22
5:30 PM	0	1	0	0	1	1	0	0	0	1	0	1	0	1	8	0	0	1	9	0	0	11	0	0	0	11	0	0	11	0	0	11	23
5:45 PM	0	0	0	0	1	0	0	0	1	0	0	1	0	0	11	0	0	0	11	0	0	38	0	2	41	0	2	38	0	2	40	87	
Total	0	2	0	1	3	3	0	0	1	2	1	3	0	3	38	0	2	41	0	2	38	0	2	41	0	2	38	0	2	40	87		
Approach	0.0	66.7	0.0	33.3	-	-	0.0	0.0	33.3	66.7	-	-	0.0	7.3	92.7	0.0	-	-	0.0	5.0	95.0	0.0	-	-	0.0	2.3	43.7	0.0	-	46.0	-		
Total	0.0	2.3	0.0	1.1	-	3.4	0.0	0.0	1.1	2.3	-	3.4	0.0	3.4	43.7	0.0	-	47.1	0.0	2.3	43.7	0.0	-	-	0.0	0.250	0.864	0.000	-	0.909	0.946		
PHF	0.000	0.500	0.000	0.250	-	0.375	0.000	0.000	0.250	0.500	-	0.750	0.000	0.375	0.864	0.000	-	0.932	0.000	0.250	0.864	0.000	-	-	0.0	0.2	35	0	-	37	83		
Lights	0	2	0	1	-	3	0	0	1	2	-	3	0	3	37	0	-	40	0	2	35	0	-	-	0	2	35	0	-	37	83		
U-Turn	-	100.0	-	100.0	-	100.0	-	-	100.0	100.0	-	100.0	-	100.0	97.4	-	-	97.6	-	100.0	92.1	-	-	-	-	100.0	92.1	-	-	92.5	95.4		
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0		
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		
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	2		
Trucks	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	0.0	-	-	0.0	-	0.0	5.3	-	-	-	-	0.0	5.3	-	-	5.0	2.3		
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		
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		
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	-	0	0	1	0	-	1	2		
Bicycles on Road	-	0.0	-	0.0	-	0.0	-	-	0.0	0.0	-	0.0	-	0.0	2.6	-	-	2.4	-	0.0	2.6	-	-	-	-	0.0	2.6	-	-	2.5	2.3		
Pedestrians	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	2	-	-		
Pedestrians	-	-	-	-	100.0	-	-	-	-	-	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

Count Name: Madison Street with Euclid Avenue
Site Code:
Start Date: 02/15/2020
Page No: 1

Turning Movement Data

Start Time	Madison Street Eastbound					Madison Street Westbound					Euclid Avenue Northbound					Euclid Avenue Southbound										
	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	Int. Total	
12:00 PM	1	3	166	0	0	170	0	1	145	20	0	166	0	0	3	1	1	1	4	0	6	0	2	0	8	348
12:15 PM	0	1	140	4	1	145	0	1	135	7	0	143	0	0	0	3	4	3	3	0	1	1	1	7	3	294
12:30 PM	0	2	164	2	0	168	0	1	173	5	0	179	0	0	2	2	3	4	4	0	1	0	1	1	2	353
12:45 PM	1	2	181	1	0	185	0	3	159	2	0	164	0	0	1	2	3	3	3	0	1	3	7	0	11	363
Hourly Total	2	8	651	7	1	668	0	6	612	34	0	652	0	0	6	8	11	14	14	0	9	4	11	8	24	1358
1:00 PM	0	3	151	0	0	154	0	3	158	2	0	163	0	0	3	4	3	7	7	0	1	1	6	4	8	332
1:15 PM	0	1	138	3	0	142	0	0	145	4	0	149	0	4	3	4	0	11	11	0	4	2	6	2	12	314
1:30 PM	1	3	149	0	1	153	0	2	161	6	1	169	0	0	2	3	7	5	5	0	3	1	4	0	8	335
1:45 PM	0	3	158	3	0	164	0	0	165	6	0	171	0	0	3	2	1	5	5	0	1	0	10	0	11	351
Hourly Total	1	10	596	6	1	613	0	5	629	18	1	652	0	4	11	13	11	28	28	0	9	4	26	6	39	1332
BREAK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	3	146	2	0	151	1	0	126	0	1	127	0	2	2	1	0	5	5	0	1	0	8	0	9	292
7:15 AM	0	5	193	0	1	198	0	0	131	0	0	131	0	0	8	4	0	12	12	0	0	0	4	1	4	345
7:30 AM	0	4	186	1	0	191	0	2	165	3	0	170	0	1	15	3	0	19	19	0	1	0	6	0	7	387
7:45 AM	0	5	178	0	0	183	0	1	168	3	0	172	0	4	16	4	3	24	24	0	2	0	7	1	9	388
Hourly Total	0	17	703	3	1	723	1	3	590	6	1	600	0	7	41	12	3	60	60	0	4	0	25	2	29	1412
8:00 AM	0	3	152	1	0	156	0	1	168	5	0	174	0	0	3	4	2	7	7	0	0	1	6	3	7	344
8:15 AM	0	3	140	1	0	144	0	5	162	4	1	171	0	2	2	1	0	5	5	0	0	2	10	1	12	332
8:30 AM	0	1	161	1	0	163	0	0	143	3	0	146	0	2	8	0	3	10	10	0	0	1	5	4	6	325
8:45 AM	0	3	141	0	0	144	0	2	151	3	0	156	0	1	4	4	2	9	9	0	0	0	3	1	3	312
Hourly Total	0	10	594	3	0	607	0	8	624	15	1	647	0	5	17	9	7	31	31	0	0	4	24	9	28	1313
BREAK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	2	156	0	0	158	0	1	166	6	0	173	0	1	0	2	1	3	3	0	1	1	2	3	4	338
4:15 PM	0	2	159	3	0	164	0	3	167	3	0	173	0	0	1	0	0	1	1	0	1	0	6	4	7	345
4:30 PM	0	3	188	1	0	192	0	1	158	3	0	162	0	1	0	5	0	6	6	0	0	2	3	1	5	365
4:45 PM	0	3	156	1	0	160	0	1	160	2	0	163	0	1	5	3	0	9	9	0	3	2	3	1	8	340
Hourly Total	0	10	659	5	0	674	0	6	651	14	0	671	0	3	6	10	0	19	19	0	5	5	14	9	24	1388
5:00 PM	0	7	172	5	0	184	0	0	134	3	0	137	0	0	5	5	6	10	10	0	2	1	7	2	10	341
5:15 PM	0	3	161	3	0	167	0	1	155	7	1	163	0	0	3	3	5	6	6	0	1	1	9	5	11	347
5:30 PM	0	1	151	3	1	155	0	3	157	4	0	164	0	0	5	1	0	6	6	0	1	3	7	6	11	336
5:45 PM	0	2	184	5	0	191	0	0	164	4	1	168	0	0	4	10	0	14	14	0	3	1	7	3	11	384
Hourly Total	0	13	668	16	1	697	0	4	610	18	2	632	0	0	17	19	11	36	36	0	7	6	30	16	43	1408
Grand Total	3	68	3871	40	4	3982	1	32	3716	105	5	3854	0	19	98	71	43	188	188	0	34	23	130	50	187	8211
Approach □	0.1	1.7	97.2	1.0	-	-	0.0	0.8	96.4	2.7	-	-	0.0	10.1	52.1	37.8	-	-	-	0.0	18.2	12.3	69.5	-	-	-
Total □	0.0	0.8	47.1	0.5	-	48.5	0.0	0.4	45.3	1.3	-	46.9	0.0	0.2	1.2	0.9	-	2.3	2.3	0.0	0.4	0.3	1.6	-	2.3	-

Lights	3	63	3795	40	-	3901	1	32	3643	101	-	3777	0	18	95	71	-	184	0	31	22	128	-	181	8043
□ Lights	100.0	92.6	98.0	100.0	-	98.0	100.0	100.0	98.0	96.2	-	98.0	-	94.7	96.9	100.0	-	97.9	-	91.2	95.7	98.5	-	96.8	98.0
Buses	0	0	24	0	-	24	0	0	27	1	-	28	0	0	1	0	-	1	0	1	0	0	-	1	54
□ Buses	0.0	0.0	0.6	0.0	-	0.6	0.0	0.0	0.7	1.0	-	0.7	-	0.0	1.0	0.0	-	0.5	-	2.9	0.0	0.0	-	0.5	0.7
Single-Unit Trucks	0	2	38	0	-	40	0	0	38	2	-	40	0	1	0	0	-	1	0	2	0	1	-	3	84
□ Single-Unit Trucks	0.0	2.9	1.0	0.0	-	1.0	0.0	0.0	1.0	1.9	-	1.0	-	5.3	0.0	0.0	-	0.5	-	5.9	0.0	0.8	-	1.6	1.0
Articulated Trucks	0	0	11	0	-	11	0	0	6	0	-	6	0	0	0	0	-	0	0	0	0	0	-	0	17
□ Articulated Trucks	0.0	0.0	0.3	0.0	-	0.3	0.0	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	3	3	0	-	6	0	0	2	1	-	3	0	0	2	0	-	2	0	0	1	1	-	2	13
□ Bicycles on Road	0.0	4.4	0.1	0.0	-	0.2	0.0	0.0	0.1	1.0	-	0.1	-	0.0	2.0	0.0	-	1.1	-	0.0	4.3	0.8	-	1.1	0.2
Pedestrians	-	-	-	-	-	4	-	-	-	-	5	-	-	-	-	-	-	43	-	-	-	-	50	-	-
□ Pedestrians	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-



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

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Count Name: Madison Street with Euclid Avenue
Site Code:
Start Date: 02/15/2020
Page No: 3

Turning Movement Peak Hour Data (12:30 PM)

Start Time	Madison Street Eastbound						Madison Street Westbound						Euclid Avenue Northbound						Euclid Avenue Southbound														
	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	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total		
12:30 PM	0	2	164	2	0	168	0	1	173	5	0	179	0	0	2	2	2	3	4	0	1	0	1	1	2	0	1	0	1	1	1	353	
12:45 PM	1	2	181	1	0	185	0	3	159	2	0	164	0	0	1	2	2	3	3	0	1	3	3	7	0	11	0	1	3	7	0	11	363
1:00 PM	0	3	151	0	0	154	0	3	158	2	0	163	0	0	3	4	3	7	7	0	1	1	1	4	6	0	1	1	6	4	8	332	
1:15 PM	0	1	138	3	0	142	0	0	145	4	0	149	0	4	3	4	0	11	11	0	4	2	6	2	6	0	4	2	6	2	12	314	
Total	1	8	634	6	0	649	0	7	635	13	0	655	0	4	9	12	9	25	25	0	7	6	20	7	33	0	7	6	20	7	33	1362	
Approach <input type="checkbox"/>	0.2	1.2	97.7	0.9	-	-	0.0	1.1	96.9	2.0	-	-	0.0	16.0	36.0	48.0	-	-	-	0.0	21.2	18.2	60.6	-	-	-	0.0	0.5	0.4	1.5	-	2.4	-
Total <input type="checkbox"/>	0.1	0.6	46.5	0.4	-	47.7	0.0	0.5	46.6	1.0	-	48.1	0.0	0.3	0.7	0.9	-	1.8	1.8	0.0	0.438	0.500	0.714	-	0.688	0.688	0.000	0.438	0.500	0.714	-	0.688	0.938
PHF	0.250	0.667	0.876	0.500	-	0.877	0.000	0.583	0.918	0.650	-	0.915	0.000	0.250	0.750	0.750	-	0.568	0.568	0.000	0.438	0.500	0.714	-	0.688	0.688	0.000	0.438	0.500	0.714	-	0.688	0.938
Lights <input type="checkbox"/>	1	8	633	6	-	648	0	7	630	12	-	649	0	4	9	12	-	25	25	0	7	6	20	-	33	33	0	7	6	20	-	33	1355
<input type="checkbox"/> Lights	100.0	100.0	99.8	100.0	-	99.8	-	100.0	99.2	92.3	-	99.1	-	100.0	100.0	100.0	-	100.0	100.0	-	100.0	100.0	100.0	-	100.0	100.0	-	100.0	100.0	100.0	-	100.0	99.5
Buses <input type="checkbox"/>	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
<input type="checkbox"/> Buses	0.0	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Single-Unit Trucks <input type="checkbox"/>	0	0	1	0	-	1	0	0	5	1	-	6	0	0	0	0	-	0	0	0	0	0	0	-	0	0	0	0	0	0	-	0	7
<input type="checkbox"/> Single-Unit Trucks	0.0	0.0	0.2	0.0	-	0.2	-	0.0	0.8	7.7	-	0.9	-	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	0.5
Articulated Trucks <input type="checkbox"/>	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
<input type="checkbox"/> 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	0.0	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road <input type="checkbox"/>	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
<input type="checkbox"/> 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	-	0.0	0.0	0.0	-	0.0	0.0
Pedestrians <input type="checkbox"/>	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	9	-	-	-	-	-	-	7	-	-	-	-	-	-	100.0	-	-
<input type="checkbox"/> Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



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Count Name: Madison Street with Euclid Avenue
Site Code:
Start Date: 02/15/2020
Page No.: 4

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Madison Street Eastbound					Madison Street Westbound					Euclid Avenue Northbound					Euclid Avenue Southbound									
	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	Int. Total
7:30 AM	0	4	186	1	0	191	0	2	165	3	0	170	0	1	15	3	0	19	0	1	0	6	0	7	387
7:45 AM	0	5	178	0	0	183	0	1	168	3	0	172	0	4	16	4	3	24	0	2	0	7	1	9	388
8:00 AM	0	3	152	1	0	156	0	1	168	5	0	174	0	0	3	4	2	7	0	0	1	6	3	7	344
8:15 AM	0	3	140	1	0	144	0	5	162	4	1	171	0	2	2	1	0	5	0	0	2	10	1	12	332
Total	0	15	656	3	0	674	0	9	663	15	1	687	0	7	36	12	5	55	0	3	3	29	5	35	1451
Approach <input type="checkbox"/>	0.0	2.2	97.3	0.4	-	-	0.0	1.3	96.5	2.2	-	-	0.0	12.7	65.5	21.8	-	-	0.0	8.6	8.6	82.9	-	-	-
Total <input type="checkbox"/>	0.0	1.0	45.2	0.2	-	46.5	0.0	0.6	45.7	1.0	-	47.3	0.0	0.5	2.5	0.8	-	3.8	0.0	0.2	0.2	2.0	-	-	-
PHF	0.000	0.750	0.882	0.750	-	0.882	0.000	0.450	0.987	0.750	-	0.987	0.000	0.438	0.563	0.750	-	0.573	0.000	0.375	0.375	0.725	-	-	0.729
Lights <input type="checkbox"/>	0	12	630	3	-	645	0	9	638	15	-	662	0	7	35	12	-	54	0	2	2	29	-	33	1394
Lights <input type="checkbox"/>	-	80.0	96.0	100.0	-	95.7	-	100.0	96.2	100.0	-	96.4	-	100.0	97.2	100.0	-	98.2	-	66.7	66.7	100.0	-	-	94.3
Buses <input type="checkbox"/>	0	0	7	0	-	7	0	0	5	0	-	5	0	0	0	0	-	0	0	1	0	0	-	-	13
Buses <input type="checkbox"/>	-	0.0	1.1	0.0	-	1.0	-	0.0	0.8	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	-	33.3	0.0	0.0	-	-	2.9
Single-Unit Trucks <input type="checkbox"/>	0	1	14	0	-	15	0	0	14	0	-	14	0	0	0	0	-	0	0	0	0	0	-	-	0
Single-Unit Trucks <input type="checkbox"/>	-	6.7	2.1	0.0	-	2.2	-	0.0	2.1	0.0	-	2.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	-	0.0
Articulated Trucks <input type="checkbox"/>	0	0	4	0	-	4	0	0	4	0	-	4	0	0	0	0	-	0	0	0	0	0	-	-	0
Articulated Trucks <input type="checkbox"/>	-	0.0	0.6	0.0	-	0.6	-	0.0	0.6	0.0	-	0.6	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	-	0.0
Bicycles on Road <input type="checkbox"/>	0	2	1	0	-	3	0	0	2	0	-	2	0	0	1	0	-	1	0	0	1	0	-	-	1
Bicycles on Road <input type="checkbox"/>	-	13.3	0.2	0.0	-	0.4	-	0.0	0.3	0.0	-	0.3	-	0.0	2.8	0.0	-	1.8	-	0.0	33.3	0.0	-	-	2.9
Pedestrians <input type="checkbox"/>	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	-	5	-	-	-	-	-	5	-
Pedestrians <input type="checkbox"/>	-	-	-	-	-	-	-	-	-	-	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

Count Name: Madison Street with Euclid Avenue
Site Code:
Start Date: 02/15/2020
Page No: 5

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Madison Street Eastbound						Madison Street Westbound						Euclid Avenue Northbound						Euclid Avenue Southbound							
	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	Int. Total	
5:00 PM	0	7	172	5	0	184	0	0	134	3	0	137	0	0	0	5	5	6	10	0	2	1	7	2	10	341
5:15 PM	0	3	161	3	0	167	0	1	155	7	1	163	0	0	3	3	5	6	0	1	1	9	5	11	347	
5:30 PM	0	1	151	3	1	155	0	3	157	4	0	164	0	0	5	1	0	6	0	1	3	7	6	11	336	
5:45 PM	0	2	184	5	0	191	0	0	164	4	1	168	0	0	4	10	0	14	0	3	1	7	3	11	384	
Total	0	13	668	16	1	697	0	4	610	18	2	632	0	0	17	19	11	36	0	7	6	30	16	43	1408	
Approach <input type="checkbox"/>	0.0	1.9	95.8	2.3	-	-	0.0	0.6	96.5	2.8	-	-	0.0	0.0	47.2	52.8	-	-	0.0	16.3	14.0	69.8	-	-	-	
Total <input type="checkbox"/>	0.0	0.9	47.4	1.1	-	49.5	0.0	0.3	43.3	1.3	-	44.9	0.0	0.0	1.2	1.3	-	2.6	0.0	0.5	0.4	2.1	-	-	3.1	
PHF	0.000	0.464	0.908	0.800	-	0.912	0.000	0.333	0.930	0.643	-	0.940	0.000	0.000	0.850	0.475	-	0.643	0.000	0.583	0.500	0.833	-	-	0.977	
Lights <input type="checkbox"/>	0	13	661	16	-	690	0	4	597	17	-	618	0	0	17	19	-	36	0	6	6	28	-	40	1384	
Lights <input type="checkbox"/>	-	100.0	99.0	100.0	-	99.0	-	100.0	97.9	94.4	-	97.8	-	-	100.0	100.0	-	100.0	-	85.7	100.0	93.3	-	93.0	98.3	
Buses <input type="checkbox"/>	0	0	3	0	-	3	0	0	6	0	-	6	0	0	0	0	-	0	0	0	0	0	-	0	9	
Buses <input type="checkbox"/>	-	0.0	0.4	0.0	-	0.4	-	0.0	1.0	0.0	-	0.9	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.6	
Single-Unit Trucks <input type="checkbox"/>	0	0	2	0	-	2	0	0	5	0	-	5	0	0	0	0	-	0	0	1	0	1	-	2	9	
Single-Unit Trucks <input type="checkbox"/>	-	0.0	0.3	0.0	-	0.3	-	0.0	0.8	0.0	-	0.8	-	-	0.0	0.0	-	0.0	-	14.3	0.0	3.3	-	4.7	0.6	
Articulated Trucks <input type="checkbox"/>	0	0	1	0	-	1	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	3	
Articulated Trucks <input type="checkbox"/>	-	0.0	0.1	0.0	-	0.1	-	0.0	0.3	0.0	-	0.3	-	-	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2	
Bicycles on Road <input type="checkbox"/>	0	0	1	0	-	1	0	0	0	1	-	1	0	0	0	0	-	0	0	0	0	1	-	1	3	
Bicycles on Road <input type="checkbox"/>	-	0.0	0.1	0.0	-	0.1	-	0.0	0.0	5.6	-	0.2	-	-	0.0	0.0	-	0.0	-	0.0	0.0	3.3	-	2.3	0.2	
Pedestrians <input type="checkbox"/>	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	11	-	-	-	-	-	16	-	-	
Pedestrians <input type="checkbox"/>	-	-	-	-	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

Count Name: Madison Street with Oak Park Avenue
Site Code:
Start Date: 02/15/2020
Page No: 1

Turning Movement Data

Start Time	Madison Street Eastbound					Madison Street Westbound					Oak Park Avenue Northbound					Oak Park Avenue Southbound									
	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	Int. Total
12:00 PM	1	22	131	15	2	169	0	14	98	36	2	148	0	28	93	12	0	133	0	29	96	32	2	157	607
12:15 PM	0	34	116	23	3	173	0	13	99	22	0	134	0	19	83	6	1	108	0	22	99	23	5	144	559
12:30 PM	0	17	137	13	2	167	0	24	127	32	3	183	0	22	81	13	4	116	0	18	100	25	4	143	609
12:45 PM	0	26	137	15	6	178	0	15	114	29	4	158	0	27	97	14	2	138	0	30	97	22	4	149	623
Hourly Total	1	99	521	66	13	687	0	66	438	119	9	623	0	96	354	45	7	495	0	99	392	102	15	593	2398
1:00 PM	0	33	123	16	3	172	0	18	117	22	3	157	0	28	114	9	2	151	0	25	102	28	2	155	635
1:15 PM	0	27	119	13	1	159	0	19	105	24	0	148	0	19	82	9	1	110	0	18	116	31	0	165	582
1:30 PM	0	24	110	13	7	147	0	14	118	30	3	162	0	25	79	23	4	127	0	21	92	25	1	138	574
1:45 PM	0	19	137	20	6	176	0	16	145	25	3	186	0	19	89	12	4	120	0	21	89	19	1	129	611
Hourly Total	0	103	489	62	17	654	0	67	485	101	9	653	0	91	364	53	11	508	0	85	399	103	4	587	2402
BREAK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	18	122	7	5	147	0	12	111	15	1	138	0	23	67	11	2	101	0	20	80	20	0	120	506
7:15 AM	0	21	159	18	6	198	0	17	103	17	0	137	0	17	88	11	1	116	0	21	86	9	2	116	567
7:30 AM	0	22	147	8	6	177	0	13	128	24	8	165	0	18	121	22	5	161	0	23	105	23	5	151	654
7:45 AM	0	18	145	16	2	179	0	17	134	32	4	183	0	14	102	14	2	130	0	22	114	16	2	152	644
Hourly Total	0	79	573	49	19	701	0	59	476	88	13	623	0	72	378	58	10	508	0	86	385	68	9	539	2371
8:00 AM	0	11	122	13	4	146	0	16	142	20	3	178	0	24	103	8	1	135	0	23	96	25	2	144	603
8:15 AM	0	18	126	12	2	156	0	9	145	24	3	178	0	23	117	7	5	147	0	17	82	27	2	126	607
8:30 AM	0	22	138	11	10	171	0	4	121	27	7	152	0	17	124	4	6	145	0	19	74	21	4	114	582
8:45 AM	0	22	114	12	5	148	0	9	120	22	3	151	0	23	116	15	4	154	0	15	90	22	2	127	580
Hourly Total	0	73	500	48	21	621	0	38	528	93	16	659	0	87	460	34	16	581	0	74	342	95	10	511	2372
BREAK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	29	137	23	3	189	0	14	139	28	6	181	0	19	103	11	1	133	0	20	96	15	7	131	634
4:15 PM	0	24	139	20	2	183	0	19	134	30	1	183	0	37	100	12	4	149	0	18	96	27	5	141	656
4:30 PM	0	24	149	23	5	196	0	17	127	33	2	177	0	28	139	19	0	186	0	33	111	29	2	173	732
4:45 PM	0	28	138	22	4	188	0	17	116	34	3	167	0	27	95	14	6	136	0	17	98	18	3	133	624
Hourly Total	0	105	563	88	14	756	0	67	516	125	12	708	0	111	437	56	11	604	0	88	401	89	17	578	2646
5:00 PM	0	24	150	16	4	190	0	16	119	26	7	161	0	21	111	12	4	144	0	25	107	30	4	162	657
5:15 PM	0	17	128	20	9	165	0	15	117	20	3	152	0	24	101	8	4	133	0	25	107	21	5	153	603
5:30 PM	0	28	121	16	8	164	0	22	123	19	4	164	0	23	108	21	3	152	0	20	122	23	4	165	646
5:45 PM	0	24	137	17	5	178	0	16	127	25	0	168	0	38	94	15	2	147	0	34	111	23	4	168	661
Hourly Total	0	93	536	69	26	698	0	69	486	90	14	645	0	106	414	56	13	576	0	104	447	97	17	648	2567
Grand Total	1	552	3182	382	110	4117	0	366	2929	616	73	3911	0	563	2407	302	68	3272	0	536	2366	554	72	3456	14756
Approach □	0.0	13.4	77.3	9.3	-	-	0.0	9.4	74.9	15.8	-	-	0.0	17.2	73.6	9.2	-	-	0.0	15.5	68.5	16.0	-	-	-
Total □	0.0	3.7	21.6	2.6	-	27.9	0.0	2.5	19.8	4.2	-	26.5	0.0	3.8	16.3	2.0	-	22.2	0.0	3.6	16.0	3.8	-	-	23.4

Lights	1	543	3111	377	-	4032	0	360	2868	607	-	3835	0	557	2362	296	-	3215	0	594	2326	550	-	3410	14482
□ Lights	100.0	98.4	97.8	98.7	-	97.9	-	98.4	97.9	98.5	-	98.1	-	98.9	98.1	98.0	-	98.3	-	99.6	98.3	99.3	-	98.7	98.2
Buses	0	3	20	1	-	24	0	0	27	3	-	30	0	1	32	4	-	37	0	1	25	0	-	26	117
□ Buses	0.0	0.5	0.6	0.3	-	0.6	-	0.0	0.9	0.5	-	0.8	-	0.2	1.3	1.3	-	1.1	-	0.2	1.1	0.0	-	0.8	0.8
Single-Unit Trucks	0	6	35	3	-	44	0	5	29	2	-	36	0	4	9	2	-	15	0	1	12	3	-	16	111
□ Single-Unit Trucks	0.0	1.1	1.1	0.8	-	1.1	-	1.4	1.0	0.3	-	0.9	-	0.7	0.4	0.7	-	0.5	-	0.2	0.5	0.5	-	0.5	0.8
Articulated Trucks	0	0	11	1	-	12	0	1	3	1	-	5	0	1	1	0	-	2	0	0	1	0	-	1	20
□ Articulated Trucks	0.0	0.0	0.3	0.3	-	0.3	-	0.3	0.1	0.2	-	0.1	-	0.2	0.0	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	5	0	-	5	0	0	2	3	-	5	0	0	3	0	-	3	0	0	2	1	-	3	16
□ Bicycles on Road	0.0	0.0	0.2	0.0	-	0.1	-	0.0	0.1	0.5	-	0.1	-	0.0	0.1	0.0	-	0.1	-	0.0	0.1	0.2	-	0.1	0.1
Pedestrians	-	-	-	-	-	110	-	-	-	-	-	73	-	-	-	-	-	68	-	-	-	-	-	72	-
□ 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

Count Name: Madison Street with Oak Park Avenue
Site Code:
Start Date: 02/15/2020
Page No: 3

Turning Movement Peak Hour Data (12:30 PM)

Start Time	Madison Street Eastbound						Madison Street Westbound						Oak Park Avenue Northbound						Oak Park Avenue Southbound						
	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	Int. Total
12:30 PM	0	17	137	13	2	167	0	24	127	32	3	183	0	22	81	13	4	116	0	18	100	25	4	143	609
12:45 PM	0	26	137	15	6	178	0	15	114	29	4	158	0	27	97	14	2	138	0	30	97	22	4	149	623
1:00 PM	0	33	123	16	3	172	0	18	117	22	3	157	0	28	114	9	2	151	0	25	102	28	2	155	635
1:15 PM	0	27	119	13	1	159	0	19	105	24	0	148	0	19	82	9	1	110	0	18	116	31	0	165	582
Total	0	103	516	57	12	676	0	76	463	107	10	646	0	96	374	45	9	515	0	91	415	106	10	612	2449
Approach <input type="checkbox"/>	0.0	15.2	76.3	8.4	-	-	0.0	11.8	71.7	16.6	-	-	0.0	18.6	72.6	8.7	-	-	0.0	14.9	67.8	17.3	-	-	-
Total <input type="checkbox"/>	0.0	4.2	21.1	2.3	-	27.6	0.0	3.1	18.9	4.4	-	26.4	0.0	3.9	15.3	1.8	-	21.0	0.0	3.7	16.9	4.3	-	25.0	-
PHF	0.000	0.780	0.942	0.891	-	0.949	0.000	0.792	0.911	0.836	-	0.883	0.000	0.857	0.820	0.804	-	0.853	0.000	0.758	0.894	0.855	-	0.927	0.964
Lights <input type="checkbox"/>	0	102	515	57	-	674	0	75	458	107	-	640	0	96	371	45	-	512	0	90	412	105	-	607	2433
Lights <input type="checkbox"/>	-	99.0	99.8	100.0	-	99.7	-	98.7	98.9	100.0	-	99.1	-	100.0	99.2	100.0	-	99.4	-	98.9	99.3	99.1	-	99.2	99.3
Buses <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	3	0	-	3	0	0	2	0	-	2	5
Buses <input type="checkbox"/>	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.8	0.0	-	0.6	-	0.0	0.5	0.0	-	0.3	0.2
Single-Unit Trucks <input type="checkbox"/>	0	1	1	0	-	2	0	1	5	0	-	6	0	0	0	0	-	0	0	1	0	1	-	2	10
Single-Unit Trucks <input type="checkbox"/>	-	1.0	0.2	0.0	-	0.3	-	1.3	1.1	0.0	-	0.9	-	0.0	0.0	0.0	-	0.0	-	1.1	0.0	0.9	-	0.3	0.4
Articulated Trucks <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
Articulated Trucks <input type="checkbox"/>	-	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 <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
Bicycles on Road <input type="checkbox"/>	-	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	0.2	0.0	-	0.2	0.0
Pedestrians <input type="checkbox"/>	-	-	-	-	12	-	-	-	-	-	10	-	-	-	-	-	-	9	-	-	-	-	-	10	-
Pedestrians <input type="checkbox"/>	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-



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Count Name: Madison Street with Oak Park Avenue
Site Code:
Start Date: 02/15/2020
Page No: 4

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Madison Street Eastbound						Madison Street Westbound						Oak Park Avenue Northbound						Oak Park Avenue Southbound						
	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	Int. Total
7:30 AM	0	22	147	8	6	177	0	13	128	24	8	165	0	18	121	22	5	161	0	23	105	23	5	151	654
7:45 AM	0	18	145	16	2	179	0	17	134	32	4	183	0	14	102	14	2	130	0	22	114	16	2	152	644
8:00 AM	0	11	122	13	4	146	0	16	142	20	3	178	0	24	103	8	1	135	0	23	96	25	2	144	603
8:15 AM	0	18	126	12	2	156	0	9	145	24	3	178	0	23	117	7	5	147	0	17	82	27	2	126	607
Total	0	69	540	49	14	658	0	55	549	100	18	704	0	79	443	51	13	573	0	85	397	91	11	573	2508
Approach	0.0	10.5	82.1	7.4	-	-	0.0	7.8	78.0	14.2	-	-	0.0	13.8	77.3	8.9	-	-	0.0	14.8	69.3	15.9	-	-	-
Total	0.0	2.8	21.5	2.0	-	26.2	0.0	2.2	21.9	4.0	-	28.1	0.0	3.1	17.7	2.0	-	22.8	0.0	3.4	15.8	3.6	-	22.8	-
PHF	0.000	0.784	0.918	0.766	-	0.919	0.000	0.809	0.947	0.781	-	0.962	0.000	0.823	0.915	0.580	-	0.890	0.000	0.924	0.871	0.843	-	0.942	0.959
Lights	0	67	515	47	-	629	0	53	530	97	-	680	0	77	422	48	-	547	0	85	383	90	-	568	2414
Lights	-	97.1	95.4	95.9	-	95.6	-	96.4	96.5	97.0	-	96.6	-	97.5	95.3	94.1	-	95.5	-	100.0	96.5	98.9	-	97.4	96.3
Buses	0	1	6	1	-	8	0	0	6	0	-	6	0	1	17	2	-	20	0	0	7	0	-	7	41
Buses	-	1.4	1.1	2.0	-	1.2	-	0.0	1.1	0.0	-	0.9	-	1.3	3.8	3.9	-	3.5	-	0.0	1.8	0.0	-	1.2	1.6
Single-Unit Trucks	0	1	13	1	-	15	0	1	10	1	-	12	0	0	3	1	-	4	0	0	7	1	-	8	39
Single-Unit Trucks	-	1.4	2.4	2.0	-	2.3	-	1.8	1.8	1.0	-	1.7	-	0.0	0.7	2.0	-	0.7	-	0.0	1.8	1.1	-	1.4	1.6
Articulated Trucks	0	0	3	0	-	3	0	1	2	1	-	4	0	1	1	0	-	2	0	0	0	0	-	0	9
Articulated Trucks	-	0.0	0.6	0.0	-	0.5	-	1.8	0.4	1.0	-	0.6	-	1.3	0.2	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	0.4
Bicycles on Road	0	0	3	0	-	3	0	0	1	1	-	2	0	0	0	0	-	0	0	0	0	0	-	0	5
Bicycles on Road	-	0.0	0.6	0.0	-	0.5	-	0.0	0.2	1.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Pedestrians	-	-	-	-	14	-	-	-	-	-	18	-	-	-	-	-	-	13	-	-	-	-	-	11	-
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

Count Name: Madison Street with Oak Park Avenue
Site Code:
Start Date: 02/15/2020
Page No: 5

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Madison Street Eastbound						Madison Street Westbound						Oak Park Avenue Northbound						Oak Park Avenue Southbound						
	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	Int. Total
5:00 PM	0	24	150	16	4	190	0	16	119	26	7	161	0	21	111	12	4	144	0	25	107	30	4	162	657
5:15 PM	0	17	128	20	9	165	0	15	117	20	3	152	0	24	101	8	4	133	0	25	107	21	5	153	603
5:30 PM	0	28	121	16	8	165	0	22	123	19	4	164	0	23	108	21	3	152	0	20	122	23	4	165	646
5:45 PM	0	24	137	17	5	178	0	16	127	25	0	168	0	38	94	15	2	147	0	34	111	23	4	168	661
Total	0	93	536	69	26	698	0	69	486	90	14	645	0	106	414	56	13	576	0	104	447	97	17	648	2567
Approach	0.0	13.3	76.8	9.9	-	-	0.0	10.7	75.3	14.0	-	-	0.0	18.4	71.9	9.7	-	-	0.0	16.0	69.0	15.0	-	-	-
Total	0.0	3.6	20.9	2.7	-	27.2	0.0	2.7	18.9	3.5	-	25.1	0.0	4.1	16.1	2.2	-	22.4	0.0	4.1	17.4	3.8	-	25.2	-
PHF	0.000	0.830	0.893	0.863	-	0.918	0.000	0.784	0.957	0.865	-	0.960	0.000	0.697	0.932	0.667	-	0.947	0.000	0.765	0.916	0.808	-	0.964	0.971
Lights	0	92	528	69	-	689	0	68	475	87	-	630	0	105	408	56	-	569	0	104	442	96	-	642	2530
Lights	-	98.9	98.5	100.0	-	98.7	-	98.6	97.7	96.7	-	97.7	-	99.1	98.6	100.0	-	98.8	-	100.0	98.9	99.0	-	99.1	98.6
Buses	0	0	3	0	-	3	0	0	5	1	-	6	0	0	5	0	-	5	0	0	3	0	-	3	17
Buses	-	0.0	0.6	0.0	-	0.4	-	0.0	1.0	1.1	-	0.9	-	0.0	1.2	0.0	-	0.9	-	0.0	0.7	0.0	-	0.5	0.7
Single-Unit Trucks	0	1	2	0	-	3	0	1	4	0	-	5	0	1	0	0	-	1	0	0	2	0	-	2	11
Single-Unit Trucks	-	1.1	0.4	0.0	-	0.4	-	1.4	0.8	0.0	-	0.8	-	0.9	0.0	0.0	-	0.2	-	0.0	0.4	0.0	-	0.3	0.4
Articulated Trucks	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
Articulated Trucks	-	0.0	0.2	0.0	-	0.1	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	2	0	-	2	0	0	1	2	-	3	0	0	1	0	-	1	0	0	0	1	-	1	7
Bicycles on Road	-	0.0	0.4	0.0	-	0.3	-	0.0	0.2	2.2	-	0.5	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	1.0	-	0.2	0.3
Pedestrians	-	-	-	-	26	-	-	-	-	-	14	-	-	-	-	-	-	13	-	-	-	-	17	-	-
Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-



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

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Count Name: Oak Park Avenue with Public Alley
Site Code:
Start Date: 02/15/2020
Page No: 1

Turning Movement Data

Start Time	Chase Access Drive Eastbound						Public Alley Westbound						Oak Park Avenue Northbound						Oak Park Avenue Southbound													
	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	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total	
12:00 PM	0	2	0	1	6	3	0	0	0	0	4	0	0	22	129	0	0	1	151	0	0	144	9	0	153	0	0	144	9	0	153	307
12:15 PM	0	3	0	3	2	6	0	0	0	0	1	0	0	18	122	0	0	140	0	0	136	12	1	148	0	0	136	12	1	148	294	
12:30 PM	0	2	0	2	5	4	0	0	0	0	3	0	0	14	118	0	0	132	0	0	143	11	2	154	0	0	143	11	2	154	290	
12:45 PM	0	1	0	6	3	7	0	0	0	0	6	0	0	28	129	0	1	157	0	0	135	10	1	145	0	0	135	10	1	145	309	
Hourly Total	0	8	0	12	16	20	0	0	0	0	14	0	0	82	498	0	2	580	0	0	558	42	4	600	0	0	558	42	4	600	1200	
1:00 PM	0	2	0	3	2	5	0	0	0	1	5	1	0	19	145	1	0	165	0	0	139	9	0	148	0	0	139	9	0	148	319	
1:15 PM	0	1	0	1	6	2	0	0	0	0	0	0	0	20	115	0	0	135	0	0	151	14	0	165	0	0	151	14	0	165	302	
1:30 PM	0	0	0	13	12	13	0	1	0	0	2	1	0	20	110	0	0	130	0	1	118	8	1	127	0	1	118	8	1	127	271	
1:45 PM	0	2	0	1	10	3	0	0	0	0	4	0	0	15	116	0	1	131	0	0	124	12	3	136	0	0	124	12	3	136	270	
Hourly Total	0	5	0	18	30	23	0	1	0	1	11	2	0	74	486	1	1	561	0	1	532	43	4	576	0	1	532	43	4	576	1162	
BREAK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7:00 AM	0	0	0	0	2	0	0	0	0	1	3	1	0	2	97	0	0	99	0	0	128	5	0	133	0	0	128	5	0	133	233	
7:15 AM	0	0	0	0	9	0	0	0	0	0	1	0	0	6	120	1	0	127	0	0	109	2	0	111	0	0	109	2	0	111	238	
7:30 AM	0	1	0	0	4	1	0	1	0	1	7	2	0	5	162	0	1	167	0	0	147	3	0	150	0	0	147	3	0	150	320	
7:45 AM	0	0	0	0	2	0	0	0	0	1	4	1	0	3	147	0	0	150	1	0	146	6	0	153	0	0	146	6	0	153	304	
Hourly Total	0	1	0	0	17	1	0	1	0	3	15	4	0	16	526	1	1	543	1	0	530	16	0	547	1	0	530	16	0	547	1095	
8:00 AM	0	0	0	0	5	0	0	0	0	1	2	1	0	8	127	0	0	135	0	0	145	7	1	152	0	0	145	7	1	152	288	
8:15 AM	0	2	0	0	6	2	0	1	0	0	2	1	0	9	151	0	0	160	0	0	126	10	0	136	0	0	126	10	0	136	299	
8:30 AM	0	0	0	2	11	2	0	1	1	1	7	3	0	13	163	0	0	176	0	0	112	6	0	118	0	0	112	6	0	118	299	
8:45 AM	0	0	0	1	5	1	0	0	0	0	3	0	0	8	154	0	0	162	0	0	121	12	0	133	0	0	121	12	0	133	296	
Hourly Total	0	2	0	3	27	5	0	2	1	2	14	5	0	38	595	0	0	633	0	0	504	35	1	539	0	0	504	35	1	539	1182	
BREAK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4:00 PM	0	1	0	0	2	1	0	0	0	0	5	0	0	20	131	0	0	151	0	0	136	9	0	145	0	0	136	9	0	145	297	
4:15 PM	0	1	0	2	4	3	0	0	0	0	1	0	0	23	122	0	0	145	0	0	147	11	0	158	0	0	147	11	0	158	306	
4:30 PM	0	1	0	2	7	3	0	0	0	0	3	0	0	21	142	0	0	163	0	0	155	8	1	163	0	0	155	8	1	163	329	
4:45 PM	0	1	0	4	10	5	0	0	0	0	2	0	0	11	149	0	0	160	1	0	148	8	2	157	0	0	148	8	2	157	322	
Hourly Total	0	4	0	8	23	12	0	0	0	0	11	0	0	75	544	0	0	619	1	0	586	36	3	623	1	0	586	36	3	623	1254	
5:00 PM	0	1	0	0	4	1	0	0	0	0	3	0	0	13	152	1	0	166	0	0	170	12	0	182	0	0	170	12	0	182	349	
5:15 PM	0	1	0	2	7	3	0	0	0	0	2	0	0	11	134	1	0	146	0	0	136	11	0	147	0	0	136	11	0	147	296	
5:30 PM	0	1	0	2	9	3	0	0	0	0	2	0	0	11	138	1	0	150	0	0	146	9	0	155	0	0	146	9	0	155	308	
5:45 PM	0	0	0	2	3	2	0	1	0	0	2	1	0	8	134	0	0	142	0	0	161	3	0	164	0	0	161	3	0	164	309	
Hourly Total	0	3	0	6	23	9	0	1	0	0	9	1	0	43	558	3	0	604	0	0	613	35	0	648	0	0	613	35	0	648	1262	
Grand Total	0	23	0	47	136	70	0	5	1	6	74	12	0	328	3207	5	4	3540	2	1	3323	207	12	3533	7155							
Approach □	0.0	32.9	0.0	67.1	-	-	0.0	41.7	8.3	50.0	-	-	0.0	9.3	90.6	0.1	-	-	0.1	0.0	94.1	5.9	-	-	-							
Total □	0.0	0.3	0.0	0.7	-	1.0	0.0	0.1	0.0	0.1	-	0.2	0.0	4.6	44.8	0.1	-	49.5	0.0	0.0	46.4	2.9	-	49.4	-							

Lights	0	22	0	47	-	69	0	5	1	5	11	0	328	3143	5	3476	2	1	3273	207	3483	7039	
□ Lights	-	95.7	-	100.0	-	98.6	-	100.0	100.0	83.3	91.7	-	100.0	98.0	100.0	98.2	100.0	100.0	98.5	100.0	-	98.6	98.4
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	38	0	38	0	0	28	0	28	66	
□ Buses	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	0.0	-	0.0	1.2	0.0	1.1	0.0	0.0	0.8	0.0	-	0.8	0.9
Single-Unit Trucks	0	1	0	0	-	1	0	0	0	1	1	0	0	18	0	18	0	0	16	0	-	16	36
□ Single-Unit Trucks	-	4.3	-	0.0	-	1.4	-	0.0	0.0	16.7	8.3	-	0.0	0.6	0.0	0.5	0.0	0.0	0.5	0.0	-	0.5	0.5
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	0	0	0	2	0	2	0	0	2	0	-	2	4
□ Articulated Trucks	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.1	0.0	0.1	0.0	0.0	0.1	0.0	-	0.1	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	0	0	0	6	0	6	0	0	4	0	-	4	10
□ Bicycles on Road	-	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
Pedestrians	-	-	-	-	-	-	-	-	-	-	74	-	-	-	-	4	-	-	-	-	-	12	-
□ Pedestrians	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	100.0	-



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

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Count Name: Oak Park Avenue with Public Alley
Site Code:
Start Date: 02/15/2020
Page No: 3

Turning Movement Peak Hour Data (12:30 PM)

Start Time	Chase Access Drive Eastbound						Public Alley Westbound						Oak Park Avenue Northbound						Oak Park Avenue Southbound							
	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	Int. Total	
12:30 PM	0	2	0	2	5	4	0	0	0	0	3	0	0	14	118	0	0	0	0	0	0	143	11	2	154	290
12:45 PM	0	1	0	6	3	7	0	0	0	0	6	0	0	28	129	0	1	1	157	0	0	135	10	1	145	309
1:00 PM	0	2	0	3	2	5	0	0	0	1	5	1	0	19	145	1	0	165	0	0	139	9	0	148	319	
1:15 PM	0	1	0	1	6	2	0	0	0	0	0	0	0	20	115	0	0	135	0	0	151	14	0	165	302	
Total	0	6	0	12	16	18	0	0	0	1	14	1	0	81	507	1	1	589	0	0	568	44	3	612	1220	
Approach <input type="checkbox"/>	0.0	33.3	0.0	66.7	-	-	0.0	0.0	0.0	100.0	-	-	0.0	13.8	86.1	0.2	-	-	0.0	0.0	92.8	7.2	-	-	-	
Total <input type="checkbox"/>	0.0	0.5	0.0	1.0	-	1.5	0.0	0.0	0.0	0.1	-	0.1	0.0	6.6	41.6	0.1	-	48.3	0.0	0.0	46.6	3.6	-	-	50.2	
PHF	0.000	0.750	0.000	0.500	-	0.643	0.000	0.000	0.000	0.250	-	0.250	0.000	0.723	0.874	0.250	-	0.892	0.000	0.000	0.940	0.786	-	-	0.927	
Lights <input type="checkbox"/>	0	6	0	12	-	18	0	0	0	1	-	1	0	81	503	1	-	585	0	0	563	44	-	607	1211	
Buses <input type="checkbox"/>	-	100.0	-	100.0	-	100.0	-	-	-	100.0	-	100.0	0	0	3	0	-	3	0	0	2	0	-	2	5	
Single-Unit Trucks <input type="checkbox"/>	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0	0	0.6	0.0	-	0.5	-	-	0.4	0.0	-	0.3	0.4	
Articulated Trucks <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	2	0	-	2	3	
Bicycles on Road <input type="checkbox"/>	-	0.0	-	0.0	-	0.0	-	-	-	0.0	-	0.0	0	0	0.2	0.0	-	0.2	-	-	0.4	0.0	-	0.3	0.2	
Pedestrians <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	
Bicycles on Road <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1	
Pedestrians <input type="checkbox"/>	-	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	0.1	
Pedestrians <input type="checkbox"/>	-	-	-	-	16	-	-	-	-	14	-	1	-	-	-	-	-	1	-	-	-	-	3	-	-	
Pedestrians <input type="checkbox"/>	-	-	-	-	100.0	-	-	-	-	100.0	-	100.0	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-	



Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Oak Park Avenue with Public Alley
Site Code:
Start Date: 02/15/2020
Page No: 4

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Chase Access Drive Eastbound						Public Alley Westbound						Oak Park Avenue Northbound						Oak Park Avenue Southbound							
	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	Int. Total	
7:30 AM	0	1	0	0	4	1	0	1	0	1	7	2	0	5	162	0	0	1	167	0	0	147	3	0	150	320
7:45 AM	0	0	0	0	2	0	0	0	0	1	4	1	0	3	147	0	0	0	150	1	0	146	6	0	153	304
8:00 AM	0	0	0	0	5	0	0	0	0	1	2	1	0	8	127	0	0	0	135	0	0	145	7	1	152	288
8:15 AM	0	2	0	0	6	2	0	1	0	0	2	1	0	9	151	0	0	0	160	0	0	126	10	0	136	299
Total	0	3	0	0	17	3	0	2	0	3	15	5	0	25	587	0	1	612	1	0	564	26	1	591	1211	
Approach	0.0	100.0	0.0	0.0	-	-	0.0	40.0	0.0	60.0	-	-	0.0	4.1	95.9	0.0	-	-	0.2	0.0	95.4	4.4	-	-	-	
Total	0.0	0.2	0.0	0.0	-	0.2	0.0	0.2	0.0	0.2	-	0.4	0.0	2.1	48.5	0.0	-	50.5	0.1	0.0	46.6	2.1	-	-	48.8	
PHF	0.000	0.375	0.000	0.000	-	0.375	0.000	0.500	0.000	0.750	-	0.625	0.000	0.694	0.906	0.000	-	0.916	0.250	0.000	0.959	0.650	-	-	0.966	
Lights	0	3	0	0	-	3	0	2	0	3	-	5	0	25	560	0	-	585	1	0	548	26	-	575	1168	
□ Lights	-	100.0	-	-	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	95.4	-	-	95.6	100.0	-	97.2	100.0	-	-	97.3	
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	18	0	-	18	0	0	7	0	-	7	25	
□ Buses	-	0.0	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	3.1	-	-	2.9	0.0	-	1.2	0.0	-	-	2.1	
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	6	0	-	6	0	0	8	0	-	8	14	
□ Single-Unit Trucks	-	0.0	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	1.0	-	-	1.0	0.0	-	1.4	0.0	-	-	1.4	
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	1	0	-	1	3	
□ Articulated Trucks	-	0.0	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.3	-	-	0.3	0.0	-	0.2	0.0	-	-	0.2	
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1	
□ Bicycles on Road	-	0.0	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.2	-	-	0.2	0.0	-	0.0	0.0	-	-	0.0	
Pedestrians	-	-	-	-	17	-	-	-	-	-	15	-	-	-	-	-	1	-	-	-	-	-	1	-	-	
□ Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	



Kenig Lindgren O'Hara Aboona, Inc.
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(847)518-9990

Count Name: Oak Park Avenue with Public Alley
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Turning Movement Peak Hour Data (5:00 PM)

Start Time	Chase Access Drive Eastbound						Public Alley Westbound						Oak Park Avenue Northbound						Oak Park Avenue Southbound							
	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	Int. Total	
5:00 PM	0	1	0	0	4	1	0	0	0	0	3	0	0	13	152	1	0	0	166	0	0	170	12	0	182	349
5:15 PM	0	1	0	2	7	3	0	0	0	0	2	0	0	11	134	1	0	146	0	0	136	11	0	147	296	
5:30 PM	0	1	0	2	9	3	0	0	0	0	2	0	0	11	138	1	0	150	0	0	146	9	0	155	308	
5:45 PM	0	0	0	2	3	2	0	1	0	0	2	1	0	8	134	0	0	142	0	0	161	3	0	164	309	
Total	0	3	0	6	23	9	0	1	0	0	9	1	0	43	558	3	0	604	0	0	613	35	0	648	1262	
Approach <input type="checkbox"/>	0.0	33.3	0.0	66.7	-	-	0.0	100.0	0.0	0.0	-	-	0.0	7.1	92.4	0.5	-	-	0.0	0.0	94.6	5.4	-	-	-	
Total <input type="checkbox"/>	0.0	0.2	0.0	0.5	-	0.7	0.0	0.1	0.0	0.0	-	0.1	0.0	3.4	44.2	0.2	-	47.9	0.0	0.0	48.6	2.8	-	51.3	-	
PHF	0.000	0.750	0.000	0.750	-	0.750	0.000	0.250	0.000	0.000	-	0.250	0.000	0.827	0.918	0.750	-	0.910	0.000	0.000	0.901	0.729	-	0.890	0.904	
Lights <input type="checkbox"/>	0	3	0	6	-	9	0	1	0	0	-	1	0	43	548	3	-	594	0	0	605	35	-	640	1244	
Buses <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	6	0	-	6	0	0	4	0	-	4	10	
Single-Unit Trucks <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1.1	0.0	-	1.0	0	0	0.7	0.0	-	0.6	0.8	
Articulated Trucks <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0.2	0.0	-	0.2	0	0	0.3	0.0	-	0.3	0.2	
Bicycles on Road <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	3	0	-	3	0	0	2	0	-	2	5	
Pedestrians <input type="checkbox"/>	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	0.4	
	-	-	-	-	23	-	-	-	-	-	9	-	-	-	-	-	0	-	-	-	-	-	0	-	-	
	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	



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9575 W. Higgins Rd., Suite 400

Rosemont, Illinois, United States 60018
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Count Name: Oak Park Avenue with Washington
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Turning Movement Data

Start Time	Washington Boulevard Eastbound						Washington Boulevard Westbound						Oak Park Avenue Northbound						Oak Park Avenue Southbound						
	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	Int. Total
12:00 PM	0	9	62	15	2	86	0	24	54	8	5	86	0	20	107	7	1	134	0	13	112	16	2	141	447
12:15 PM	0	3	63	14	1	80	0	24	64	7	1	95	0	21	90	12	0	123	0	17	112	10	0	139	437
12:30 PM	0	12	78	16	1	106	0	22	56	7	2	85	0	15	92	9	1	116	0	19	133	8	2	160	467
12:45 PM	0	7	74	16	5	97	0	21	70	9	2	100	0	13	110	6	4	129	0	22	101	12	0	135	461
Hourly Total	0	31	277	61	9	369	0	91	244	31	10	366	0	69	399	34	6	502	0	71	458	46	4	575	1812
1:00 PM	0	11	54	22	1	87	0	18	58	9	0	85	0	23	119	16	0	158	0	20	108	18	1	146	476
1:15 PM	0	9	65	11	6	85	0	25	58	11	1	94	0	8	97	12	1	117	0	19	122	8	0	149	445
1:30 PM	0	4	56	11	4	71	0	20	69	10	2	99	0	11	101	6	0	118	0	26	104	14	0	144	432
1:45 PM	0	6	68	15	3	89	0	16	68	8	2	92	0	15	89	12	0	116	0	31	105	11	1	147	444
Hourly Total	0	30	243	59	14	332	0	79	253	38	5	370	0	57	406	46	1	509	0	96	439	51	2	566	1797
BREAK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	3	92	8	3	103	0	12	93	7	4	112	0	11	80	11	0	102	0	26	126	9	1	161	478
7:15 AM	0	6	108	11	6	125	0	9	89	7	11	105	0	3	107	5	10	115	0	29	90	1	7	120	465
7:30 AM	0	5	96	10	4	111	0	16	93	9	5	118	0	14	126	12	7	152	0	38	120	7	6	165	546
7:45 AM	0	7	107	17	3	131	0	23	106	5	6	134	0	24	122	8	3	154	0	39	122	12	2	173	592
Hourly Total	0	21	403	46	16	470	0	60	381	28	26	469	0	52	435	36	20	523	0	132	458	29	16	619	2081
8:00 AM	0	9	73	8	3	90	0	22	130	11	5	163	0	26	97	4	2	127	0	27	113	10	4	150	530
8:15 AM	0	10	57	13	8	80	0	15	94	7	3	116	0	20	121	9	4	150	0	20	113	12	5	145	491
8:30 AM	0	15	47	9	15	71	0	25	76	9	5	110	0	30	127	6	4	163	0	18	79	10	12	107	451
8:45 AM	0	7	43	6	5	56	0	22	58	7	3	87	0	12	129	7	1	148	0	11	109	6	8	126	417
Hourly Total	0	41	220	36	31	297	0	84	358	34	16	476	0	88	474	26	11	588	0	76	414	38	29	528	1889
BREAK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	4	78	14	1	96	0	14	111	6	5	131	0	17	124	9	1	150	0	21	116	12	2	149	526
4:15 PM	0	6	92	12	3	110	0	26	103	9	2	138	0	21	95	10	0	126	0	20	131	5	0	156	530
4:30 PM	0	4	76	20	7	100	0	19	102	9	2	130	0	21	105	18	2	144	0	20	121	18	4	159	533
4:45 PM	1	11	77	20	9	109	0	12	105	7	3	124	0	21	113	8	1	142	0	23	116	11	7	150	525
Hourly Total	1	25	323	66	20	415	0	71	421	31	12	523	0	80	437	45	4	562	0	84	484	46	13	614	2114
5:00 PM	0	5	100	15	7	120	0	15	121	8	5	144	0	17	119	17	5	153	0	26	153	10	6	189	606
5:15 PM	0	6	105	11	9	122	0	17	110	11	4	138	0	18	115	6	5	139	0	26	125	8	1	159	558
5:30 PM	0	13	99	10	12	122	0	10	94	8	3	112	0	21	114	9	3	144	0	40	136	9	4	185	563
5:45 PM	0	8	100	17	8	125	0	19	120	6	3	145	0	13	112	15	2	140	0	27	128	18	4	173	583
Hourly Total	0	32	404	53	36	489	0	61	445	33	15	539	0	69	460	47	15	576	0	119	542	45	15	706	2310
Grand Total	1	180	1870	321	126	2372	0	446	2102	195	84	2743	0	415	2611	234	57	3260	0	578	2795	255	79	3628	12003
Approach □	0.0	7.6	78.8	13.5	-	-	0.0	16.3	76.6	7.1	-	-	0.0	12.7	80.1	7.2	-	-	0.0	15.9	77.0	7.0	-	-	-
Total □	0.0	1.5	15.6	2.7	-	19.8	0.0	3.7	17.5	1.6	-	22.9	0.0	3.5	21.8	1.9	-	27.2	0.0	4.8	23.3	2.1	-	30.2	-

Lights	1	176	1858	316	2351	0	445	2074	191	2710	0	410	2558	229	-	3197	0	570	2755	252	-	3577	11835
□ Lights	100.0	97.8	99.4	98.4	99.1	-	98.8	98.7	97.9	98.8	-	98.8	98.0	97.9	-	98.1	-	98.6	98.6	98.8	-	98.6	98.6
Buses	0	3	7	1	11	0	1	22	1	24	0	2	33	1	-	36	0	5	26	2	-	33	104
□ Buses	0.0	1.7	0.4	0.3	0.5	-	0.2	1.0	0.5	0.9	-	0.5	1.3	0.4	-	1.1	-	0.9	0.9	0.8	-	0.9	0.9
Single-Unit Trucks	0	1	4	3	8	0	0	5	3	8	0	2	15	3	-	20	0	3	10	1	-	14	50
□ Single-Unit Trucks	0.0	0.6	0.2	0.9	0.3	-	0.0	0.2	1.5	0.3	-	0.5	0.6	1.3	-	0.6	-	0.5	0.4	0.4	-	0.4	0.4
Articulated Trucks	0	0	0	1	1	0	0	0	0	0	0	0	2	0	-	2	0	0	0	0	-	0	3
□ Articulated Trucks	0.0	0.0	0.0	0.3	0.0	-	0.0	0.0	0.0	0.0	-	0.0	0.1	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	1	0	1	0	0	1	0	1	0	1	3	1	-	5	0	0	4	0	-	4	11
□ Bicycles on Road	0.0	0.0	0.1	0.0	0.0	-	0.0	0.0	0.0	0.0	-	0.2	0.1	0.4	-	0.2	-	0.0	0.1	0.0	-	0.1	0.1
Pedestrians	-	-	-	-	126	-	-	-	-	84	-	-	-	-	-	57	-	-	-	-	-	79	-
□ 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

Count Name: Oak Park Avenue with Washington
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Start Date: 02/15/2020
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Turning Movement Peak Hour Data (12:30 PM)

Start Time	Washington Boulevard Eastbound						Washington Boulevard Westbound						Oak Park Avenue Northbound						Oak Park Avenue Southbound						
	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	Int. Total
12:30 PM	0	12	78	16	1	106	0	22	56	7	2	85	0	15	92	9	1	116	0	19	133	8	2	160	467
12:45 PM	0	7	74	16	5	97	0	21	70	9	2	100	0	13	110	6	4	129	0	22	101	12	0	135	461
1:00 PM	0	11	54	22	1	87	0	18	58	9	0	85	0	23	119	16	0	158	0	20	108	18	1	146	476
1:15 PM	0	9	65	11	6	85	0	25	58	11	1	94	0	8	97	12	1	117	0	19	122	8	0	149	445
Total	0	39	271	65	13	375	0	86	242	36	5	364	0	59	418	43	6	520	0	80	464	46	3	590	1849
Approach	0.0	10.4	72.3	17.3	-	-	0.0	23.6	66.5	9.9	-	-	0.0	11.3	80.4	8.3	-	-	0.0	13.6	78.6	7.8	-	-	-
Total	0.0	2.1	14.7	3.5	-	20.3	0.0	4.7	13.1	1.9	-	19.7	0.0	3.2	22.6	2.3	-	28.1	0.0	4.3	25.1	2.5	-	31.9	-
PHF	0.000	0.813	0.869	0.739	-	0.884	0.000	0.860	0.864	0.818	-	0.910	0.000	0.641	0.878	0.672	-	0.823	0.000	0.909	0.872	0.639	-	0.922	0.971
Lights	0	38	270	65	-	373	0	86	241	35	-	362	0	59	415	42	-	516	0	79	460	46	-	585	1836
Lights	-	97.4	99.6	100.0	-	99.5	-	100.0	99.6	97.2	-	99.5	-	100.0	99.3	97.7	-	99.2	-	98.8	99.1	100.0	-	99.2	99.3
Buses	0	0	0	0	-	0	0	0	1	0	-	1	0	0	3	0	-	3	0	0	2	0	-	2	6
Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.4	0.0	-	0.3	-	0.0	0.7	0.0	-	0.6	-	0.0	0.4	0.0	-	0.3	0.3
Single-Unit Trucks	0	1	1	0	-	2	0	0	0	1	-	1	0	0	0	1	-	1	0	1	1	0	-	2	6
Single-Unit Trucks	-	2.6	0.4	0.0	-	0.5	-	0.0	0.0	2.8	-	0.3	-	0.0	0.0	2.3	-	0.2	-	1.3	0.2	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
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1
Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.2	0.0	-	0.2	0.1
Pedestrians	-	-	-	-	13	-	-	-	-	-	5	-	-	-	-	-	6	-	-	-	-	-	3	-	-
Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Oak Park Avenue with Washington
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Turning Movement Peak Hour Data (7:30 AM)

Start Time	Washington Boulevard Eastbound						Washington Boulevard Westbound						Oak Park Avenue Northbound						Oak Park Avenue Southbound												
	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	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
7:30 AM	0	5	96	10	4	111	0	16	93	9	5	118	0	14	126	12	7	152	0	38	120	7	6	165	0	39	122	12	2	173	546
7:45 AM	0	7	107	17	3	131	0	23	106	5	6	134	0	24	122	8	3	154	0	27	113	10	4	150	0	20	113	12	5	145	530
8:00 AM	0	9	73	8	3	90	0	22	130	11	5	163	0	20	121	9	4	150	0	20	113	12	5	145	0	124	468	41	17	633	491
8:15 AM	0	10	57	13	8	80	0	15	94	7	3	116	0	84	466	33	16	583	0	19.6	73.9	6.5	-	-	0	5.7	21.7	1.9	-	-	2159
Total	0	31	333	48	18	412	0	76	423	32	19	531	0	14.4	79.9	5.7	-	-	0	0.0	0.0	0.0	0.0	0.0	0	0.0	0.0	0.0	0.0	0.0	-
Approach	0.0	7.5	80.8	11.7	-	-	0.0	14.3	79.7	6.0	-	-	0.0	3.9	21.6	1.5	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-
Total	0.0	1.4	15.4	2.2	-	19.1	0.0	0.826	0.813	0.727	-	24.6	0.0	0.808	0.925	0.688	-	27.0	0.0	0.795	0.959	0.854	-	29.3	0.0	0.0	0.0	0.0	0.0	0.0	29.3
PHF	0.000	0.775	0.778	0.706	-	0.786	0.000	0.826	0.813	0.727	-	0.814	0.000	0.808	0.925	0.688	-	0.946	0.000	0.795	0.959	0.854	-	0.915	0.000	0.000	0.000	0.000	0.000	0.000	0.915
Lights	0	31	330	45	-	406	0	75	418	29	-	522	0	83	443	32	-	558	0	121	457	40	-	618	0	121	457	40	-	618	2104
□ Lights	-	100.0	99.1	93.8	-	98.5	-	98.7	98.8	90.6	-	98.3	-	98.8	95.1	97.0	-	95.7	-	97.6	97.6	97.6	-	97.6	-	97.6	97.6	97.6	-	97.6	97.5
Buses	0	0	2	1	-	3	0	1	4	1	-	6	0	0	16	1	-	17	0	2	5	0	-	7	0	2	5	0	-	7	33
□ Buses	-	0.0	0.6	2.1	-	0.7	-	1.3	0.9	3.1	-	1.1	-	0.0	3.4	3.0	-	2.9	-	1.6	1.1	0.0	-	1.1	-	1.6	1.1	0.0	-	1.1	1.5
Single-Unit Trucks	0	0	1	2	-	3	0	0	1	2	-	3	0	1	5	0	-	6	0	1	6	1	-	8	0	1	6	1	-	8	20
□ Single-Unit Trucks	-	0.0	0.3	4.2	-	0.7	-	0.0	0.2	6.3	-	0.6	-	1.2	1.1	0.0	-	1.0	-	0.8	1.3	2.4	-	1.3	-	0.8	1.3	2.4	-	1.3	0.9
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	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	0.4	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	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	-	0.0	0.0
Pedestrians	-	-	-	-	18	-	-	-	-	-	19	-	-	-	-	-	16	-	-	-	-	-	17	-	-	-	-	-	17	-	-
□ Pedestrians	-	-	-	-	100.0	-	-	-	-	-	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

Count Name: Oak Park Avenue with Washington
Boulevard
Site Code:
Start Date: 02/15/2020
Page No: 5

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Washington Boulevard Eastbound						Washington Boulevard Westbound						Oak Park Avenue Northbound						Oak Park Avenue Southbound						
	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	Int. Total
5:00 PM	0	5	100	15	7	120	0	15	121	8	5	144	0	17	119	17	5	153	0	26	153	10	6	189	606
5:15 PM	0	6	105	11	9	122	0	17	110	11	4	138	0	18	115	6	5	139	0	26	125	8	1	159	558
5:30 PM	0	13	99	10	12	122	0	10	94	8	3	112	0	21	114	9	3	144	0	40	136	9	4	185	563
5:45 PM	0	8	100	17	8	125	0	19	120	6	3	145	0	13	112	15	2	140	0	27	128	18	4	173	583
Total	0	32	404	53	36	489	0	61	445	33	15	539	0	69	460	47	15	576	0	119	542	45	15	706	2310
Approach	0.0	6.5	82.6	10.8	-	-	0.0	11.3	82.6	6.1	-	-	0.0	12.0	79.9	8.2	-	-	0.0	16.9	76.8	6.4	-	-	-
Total	0.0	1.4	17.5	2.3	-	21.2	0.0	2.6	19.3	1.4	-	23.3	0.0	3.0	19.9	2.0	-	24.9	0.0	5.2	23.5	1.9	-	30.6	-
PHF	0.000	0.615	0.962	0.779	-	0.978	0.000	0.803	0.919	0.750	-	0.929	0.000	0.821	0.966	0.691	-	0.941	0.000	0.744	0.886	0.625	-	0.934	0.953
Lights	0	32	401	53	-	486	0	61	442	33	-	536	0	68	453	46	-	567	0	119	534	45	-	698	2287
Lights	-	100.0	99.3	100.0	-	99.4	-	100.0	99.3	100.0	-	99.4	-	98.6	98.5	97.9	-	98.4	-	100.0	98.5	100.0	-	98.9	99.0
Buses	0	0	2	0	-	2	0	0	2	0	-	2	0	0	5	0	-	5	0	0	4	0	-	4	13
Buses	-	0.0	0.5	0.0	-	0.4	-	0.0	0.4	0.0	-	0.4	-	0.0	1.1	0.0	-	0.9	-	0.0	0.7	0.0	-	0.6	0.6
Single-Unit Trucks	0	0	1	0	-	1	0	0	1	0	-	1	0	0	1	1	-	2	0	0	2	0	-	2	6
Single-Unit Trucks	-	0.0	0.2	0.0	-	0.2	-	0.0	0.2	0.0	-	0.2	-	0.0	0.2	2.1	-	0.3	-	0.0	0.4	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
Bicycles on Road	0	0	0	0	-	0	0	0	0	0	-	0	0	1	1	0	-	2	0	0	2	0	-	2	4
Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	1.4	0.2	0.0	-	0.3	-	0.0	0.4	0.0	-	0.3	0.2
Pedestrians	-	-	-	-	36	-	-	-	-	-	15	-	-	-	-	-	-	15	-	-	-	-	15	-	-
Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	100.0	-	-



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

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Count Name: Washington Boulevard with Euclid
avenue
Site Code:
Start Date: 02/15/2020
Page No: 1

Turning Movement Data

Start Time	Washington Boulevard Eastbound						Washington Boulevard Westbound						Euclid Avenue Northbound						Euclid Avenue Southbound																			
	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	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total		
12:00 PM	0	7	70	3	1	80	0	1	71	1	0	73	1	0	9	2	0	12	0	1	3	13	0	17	0	0	2	16	0	18	0	0	2	16	0	18		
12:15 PM	0	7	80	1	2	88	0	1	73	1	2	75	0	2	3	2	1	7	0	0	2	16	0	18	0	0	2	16	0	18	0	0	2	16	0	18		
12:30 PM	0	10	96	3	0	109	0	1	64	1	2	66	0	0	6	0	1	6	0	0	4	19	0	23	0	0	4	19	0	23	0	0	4	19	0	23		
12:45 PM	0	6	89	3	0	98	0	5	88	0	1	93	0	1	5	0	1	6	0	2	3	12	0	17	0	2	3	12	0	17	0	2	3	12	0	17		
Hourly Total	0	30	335	10	3	375	0	8	296	3	5	307	1	3	23	4	3	31	0	3	12	60	0	75	0	3	12	60	0	75	0	3	12	60	0	75		
1:00 PM	0	8	79	3	0	90	0	1	71	6	2	78	0	0	6	2	1	8	0	1	1	12	1	14	0	1	1	12	1	14	0	1	1	12	1	14		
1:15 PM	0	5	85	5	0	95	0	3	74	2	0	79	0	1	7	0	0	8	0	0	1	15	0	16	0	0	1	15	0	16	0	0	1	15	0	16		
1:30 PM	0	7	79	3	0	89	0	3	92	2	2	97	0	2	6	2	1	10	0	1	1	11	1	13	0	1	1	11	1	13	0	1	1	11	1	13		
1:45 PM	0	8	96	5	5	109	0	4	70	2	0	76	1	3	8	1	2	13	0	0	1	19	1	20	0	0	1	19	1	20	0	0	1	19	1	20		
Hourly Total	0	28	339	16	5	383	0	11	307	12	4	330	1	6	27	5	4	39	0	2	4	57	3	63	0	2	4	57	3	63	0	2	4	57	3	63		
Hourly Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
7:00 AM	0	12	113	2	1	127	0	4	92	1	0	97	0	1	6	3	1	10	0	0	0	13	2	13	0	0	0	13	2	13	0	0	0	13	2	13		
7:15 AM	0	8	132	1	1	141	0	2	97	2	1	101	0	1	8	3	4	12	0	1	0	18	5	19	0	1	0	18	5	19	0	1	0	18	5	19		
7:30 AM	0	13	139	2	1	154	0	4	92	2	4	98	0	1	18	6	5	25	0	0	1	19	5	20	0	0	1	19	5	20	0	0	1	19	5	20		
7:45 AM	0	5	146	2	2	153	0	4	122	2	1	128	0	2	23	1	1	26	0	0	1	25	4	26	0	0	1	25	4	26	0	0	1	25	4	26		
Hourly Total	0	38	530	7	5	575	0	14	403	7	6	424	0	5	55	13	11	73	0	1	2	75	16	78	0	1	2	75	16	78	0	1	2	75	16	78		
8:00 AM	0	1	97	1	0	99	0	3	139	8	4	150	0	3	6	1	1	10	0	0	2	13	5	15	0	0	2	13	5	15	0	0	2	13	5	15		
8:15 AM	0	3	84	1	1	88	0	3	96	1	1	100	0	2	6	2	1	10	0	1	2	11	5	14	0	1	2	11	5	14	0	1	2	11	5	14		
8:30 AM	0	5	88	0	0	73	0	4	81	3	1	88	0	0	8	3	0	11	0	0	2	22	10	24	0	0	2	22	10	24	0	0	2	22	10	24		
8:45 AM	0	2	55	0	1	57	0	2	71	2	0	75	0	1	7	2	1	10	0	0	0	21	2	21	0	0	0	21	2	21	0	0	0	21	2	21		
Hourly Total	0	11	304	2	2	317	0	12	387	14	6	413	0	6	27	8	3	41	0	1	6	67	22	74	0	1	6	67	22	74	0	1	6	67	22	74		
Hourly Total	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
4:00 PM	0	6	104	1	0	111	0	4	116	6	1	126	0	3	5	1	2	9	0	0	1	12	1	13	0	0	1	12	1	13	0	0	1	12	1	13		
4:15 PM	0	8	108	1	2	117	0	1	121	3	1	125	0	0	3	2	3	5	0	0	5	16	1	21	0	0	5	16	1	21	0	0	5	16	1	21		
4:30 PM	0	3	106	2	2	111	0	0	110	3	0	113	0	2	5	2	1	9	0	0	1	18	16	19	0	0	1	18	16	19	0	0	1	18	16	19		
4:45 PM	0	3	109	2	1	114	0	5	108	3	3	116	0	1	8	0	1	9	0	1	2	9	9	12	0	1	2	9	9	12	0	1	2	9	9	12		
Hourly Total	0	20	427	6	5	453	0	10	455	15	5	480	0	6	21	5	7	32	0	1	9	55	27	65	0	1	9	55	27	65	0	1	9	55	27	65		
5:00 PM	0	4	130	5	1	139	0	5	133	5	1	143	0	2	5	3	5	10	0	1	3	20	3	24	0	1	3	20	3	24	0	1	3	20	3	24		
5:15 PM	0	4	131	0	6	135	0	1	111	4	1	116	0	0	6	2	4	8	0	0	4	14	1	18	0	0	4	14	1	18	0	0	4	14	1	18		
5:30 PM	0	7	141	5	2	153	0	6	113	3	1	122	0	2	7	0	3	9	0	0	5	14	1	19	0	0	5	14	1	19	0	0	5	14	1	19		
5:45 PM	0	6	127	3	1	136	0	6	127	6	1	139	0	0	6	3	3	9	0	0	3	16	0	19	0	0	3	16	0	19	0	0	3	16	0	19		
Hourly Total	0	21	529	13	10	563	0	18	484	18	4	520	0	4	24	8	15	36	0	1	15	64	5	80	0	1	15	64	5	80	0	1	15	64	5	80		
Grand Total	0	148	2464	54	30	2666	0	73	2332	69	30	2474	2	30	177	43	43	252	0	9	48	378	73	435	5827	5827	5827	5827	5827	5827	5827	5827	5827	5827	5827	5827		
Approach	0.0	5.6	92.4	2.0	-	-	0.0	3.0	94.3	2.8	-	-	0.8	11.9	70.2	17.1	-	-	-	0.0	2.1	11.0	86.9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total	0.0	2.5	42.3	0.9	-	45.8	0.0	1.3	40.0	1.2	-	42.5	0.0	0.5	3.0	0.7	-	4.3	0.0	0.2	0.8	6.5	-	7.5	0.0	0.0	0.2	0.8	6.5	-	7.5	0.0	0.0	0.2	0.8	6.5	-	7.5

Lights	0	146	2444	53	2643	0	73	2301	67	2441	2	30	171	38	-	241	0	8	40	373	-	421	5746
□ Lights	-	98.6	99.2	98.1	99.1	-	100.0	98.7	97.1	98.7	100.0	100.0	96.6	88.4	-	95.6	-	88.9	83.3	98.7	-	96.8	98.6
Buses	0	1	10	1	12	0	0	20	1	21	0	0	1	1	-	2	0	1	0	3	-	4	39
□ Buses	-	0.7	0.4	1.9	0.5	-	0.0	0.9	1.4	0.8	0.0	0.0	0.6	2.3	-	0.8	-	11.1	0.0	0.8	-	0.9	0.7
Single-Unit Trucks	0	1	9	0	10	0	0	11	0	11	0	0	3	1	-	4	0	0	4	2	-	6	31
□ Single-Unit Trucks	-	0.7	0.4	0.0	0.4	-	0.0	0.5	0.0	0.4	0.0	0.0	1.7	2.3	-	1.6	-	0.0	8.3	0.5	-	1.4	0.5
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	1	0	-	1	0	0	0	0	-	0	1
□ Articulated 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	-	0.4	-	0.0	0.0	0.0	-	0.0	0.0
Bicycles on Road	0	0	1	0	1	0	0	0	1	1	0	0	1	3	-	4	0	0	4	0	-	4	10
□ Bicycles on Road	-	0.0	0.0	0.0	0.0	-	0.0	0.0	1.4	0.0	0.0	0.0	0.6	7.0	-	1.6	-	0.0	8.3	0.0	-	0.9	0.2
Pedestrians	-	-	-	-	30	-	-	-	-	30	-	-	-	-	-	43	-	-	-	-	-	73	-
□ Pedestrians	-	-	-	-	100.0	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-



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Count Name: Washington Boulevard with Euclid
avenue
Site Code:
Start Date: 02/15/2020
Page No: 3

Turning Movement Peak Hour Data (12:30 PM)

Start Time	Washington Boulevard Eastbound						Washington Boulevard Westbound						Euclid Avenue Northbound						Euclid Avenue Southbound													
	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	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total	
12:30 PM	0	10	96	3	0	109	0	1	64	1	2	66	0	0	6	0	0	1	6	0	0	4	19	0	23	0	0	4	19	0	23	204
12:45 PM	0	6	89	3	0	98	0	5	88	0	1	93	0	1	5	0	1	6	0	2	3	12	0	17	0	2	3	12	0	17	214	
1:00 PM	0	8	79	3	0	90	0	1	71	6	2	78	0	0	6	2	1	8	0	1	1	12	1	14	0	1	1	12	1	14	190	
1:15 PM	0	5	85	5	0	95	0	3	74	2	0	79	0	1	7	0	0	8	0	0	1	15	0	16	0	0	1	15	0	16	198	
Total	0	29	349	14	0	392	0	10	297	9	5	316	0	2	24	2	3	28	0	3	9	58	1	70	0	3	9	58	1	70	806	
Approach <input type="checkbox"/>	0.0	7.4	89.0	3.6	-	-	0.0	3.2	94.0	2.8	-	-	0.0	7.1	85.7	7.1	-	-	0.0	4.3	12.9	82.9	-	-	0.0	4.3	12.9	82.9	-	-	-	
Total <input type="checkbox"/>	0.0	3.6	43.3	1.7	-	48.6	0.0	1.2	36.8	1.1	-	39.2	0.0	0.2	3.0	0.2	-	3.5	0.0	0.4	1.1	7.2	-	8.7	0.0	0.4	1.1	7.2	-	8.7	-	
PHF	0.000	0.725	0.909	0.700	-	0.899	0.000	0.500	0.844	0.375	-	0.849	0.000	0.500	0.857	0.250	-	0.875	0.000	0.375	0.563	0.763	-	0.761	0.000	0.375	0.563	0.763	-	0.761	0.942	
Lights <input type="checkbox"/>	0	28	348	14	-	390	0	10	295	8	-	313	0	2	23	2	-	27	0	2	8	58	-	68	0	2	8	58	-	68	798	
Lights <input type="checkbox"/>	-	96.6	99.7	100.0	-	99.5	-	100.0	99.3	88.9	-	99.1	-	100.0	95.8	100.0	-	96.4	-	66.7	88.9	100.0	-	97.1	-	66.7	88.9	100.0	-	97.1	99.0	
Buses <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	1	0	0	-	1	1	
Buses <input type="checkbox"/>	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	33.3	0.0	0.0	-	1.4	-	33.3	0.0	0.0	-	1.4	0.1	
Single-Unit Trucks <input type="checkbox"/>	0	1	1	0	-	2	0	0	2	0	-	2	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	5	
Single-Unit Trucks <input type="checkbox"/>	-	3.4	0.3	0.0	-	0.5	-	0.0	0.7	0.0	-	0.6	-	0.0	4.2	0.0	-	3.6	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.6	
Articulated Trucks <input type="checkbox"/>	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	
Articulated Trucks <input type="checkbox"/>	-	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	-	0.0	0.0	
Bicycles on Road <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	1	-	1	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	2	
Bicycles on Road <input type="checkbox"/>	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	11.1	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	11.1	0.0	-	1.4	-	0.0	11.1	0.0	-	1.4	0.2	
Pedestrians <input type="checkbox"/>	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	1	-	-	
Pedestrians <input type="checkbox"/>	-	-	-	-	-	-	-	-	-	-	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

Count Name: Washington Boulevard with Euclid
avenue
Site Code:
Start Date: 02/15/2020
Page No: 4

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Washington Boulevard Eastbound						Washington Boulevard Westbound						Euclid Avenue Northbound						Euclid Avenue Southbound													
	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	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total	
7:30 AM	0	13	139	2	1	154	0	4	92	2	4	98	0	1	18	6	5	25	0	0	1	19	5	20	0	0	1	19	5	20	297	
7:45 AM	0	5	146	2	2	153	0	4	122	2	1	128	0	2	23	1	1	26	0	0	1	25	4	26	0	0	1	25	4	26	333	
8:00 AM	0	1	97	1	0	99	0	3	139	8	4	150	0	3	6	1	1	10	0	0	2	13	5	15	0	0	2	13	5	15	274	
8:15 AM	0	3	84	1	1	88	0	3	96	1	1	100	0	2	6	2	1	10	0	1	2	11	5	14	0	1	2	11	5	14	212	
Total	0	22	466	6	4	494	0	14	449	13	10	476	0	8	53	10	8	71	0	1	6	68	19	75	0	1	6	68	19	75	1116	
Approach <input type="checkbox"/>	0.0	4.5	94.3	1.2	-	-	0.0	2.9	94.3	2.7	-	-	0.0	11.3	74.6	14.1	-	-	0.0	1.3	8.0	90.7	-	-	0.0	0.1	0.5	6.1	-	-	-	
Total <input type="checkbox"/>	0.0	2.0	41.8	0.5	-	44.3	0.0	1.3	40.2	1.2	-	42.7	0.0	0.7	4.7	0.9	-	6.4	0.0	0.250	0.750	0.680	-	0.721	0.000	0.250	0.750	0.680	-	0.721	0.838	
PHF	0.000	0.423	0.798	0.750	-	0.802	0.000	0.875	0.808	0.406	-	0.793	0.000	0.667	0.576	0.417	-	0.683	0.000	0.250	0.750	0.680	-	0.721	0.000	0.250	0.750	0.680	-	0.721	0.838	
Lights <input type="checkbox"/>	0	21	460	6	-	487	0	14	441	13	-	468	0	8	51	7	-	66	0	1	5	68	-	74	0	1	5	68	-	74	1095	
Buses <input type="checkbox"/>	0	1	3	0	-	4	0	0	5	0	-	5	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	9	
Single-Unit Trucks <input type="checkbox"/>	0	0	3	0	-	3	0	0	3	0	-	3	0	0	1	1	-	2	0	0	0	0	-	0	0	0	0	0	-	0	8	
Articulated Trucks <input type="checkbox"/>	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 <input type="checkbox"/>	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 <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	2	-	3	0	0	1	0	-	1	0	0	1	0	-	1	4	
Int. Total	-	-	-	-	4	-	-	-	-	-	10	-	-	-	-	-	8	-	-	-	-	-	-	19	-	-	-	-	-	-	100.0	-
100.0	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-



Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Washington Boulevard with Euclid
avenue
Site Code:
Start Date: 02/15/2020
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Turning Movement Peak Hour Data (5:00 PM)

Start Time	Washington Boulevard Eastbound						Washington Boulevard Westbound						Euclid Avenue Northbound						Euclid Avenue Southbound												
	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	U-Turn	Left	Thru	Right	Peds	App. Total	Int. Total
5:00 PM	0	4	130	5	1	139	0	5	133	5	1	143	0	2	5	3	5	10	0	1	3	20	3	24	0	0	4	14	1	18	316
5:15 PM	0	4	131	0	6	135	0	1	111	4	1	116	0	0	6	2	4	8	0	0	4	14	1	18	0	0	4	14	1	18	277
5:30 PM	0	7	141	5	2	153	0	6	113	3	1	122	0	2	7	0	3	9	0	0	5	14	1	19	0	0	5	14	1	19	303
5:45 PM	0	6	127	3	1	136	0	6	127	6	1	139	0	0	6	3	3	9	0	0	3	16	0	19	0	0	3	16	0	19	303
Total	0	21	529	13	10	563	0	18	484	18	4	520	0	4	24	8	15	36	0	1	15	64	5	80	0	1	15	64	5	80	1199
Approach <input type="checkbox"/>	0.0	3.7	94.0	2.3	-	-	0.0	3.5	93.1	3.5	-	-	0.0	11.1	66.7	22.2	-	-	0.0	1.3	18.8	80.0	-	-	0.0	0.0	1.3	18.8	80.0	-	-
Total <input type="checkbox"/>	0.0	1.8	44.1	1.1	-	47.0	0.0	1.5	40.4	1.5	-	43.4	0.0	0.3	2.0	0.7	-	3.0	0.0	0.1	1.3	5.3	-	6.7	0.0	0.0	0.1	1.3	5.3	-	6.7
PHF	0.000	0.750	0.938	0.650	-	0.920	0.000	0.750	0.910	0.750	-	0.909	0.000	0.500	0.857	0.667	-	0.900	0.000	0.250	0.750	0.800	-	0.833	0.000	0.250	0.750	0.800	-	0.833	0.949
Lights <input type="checkbox"/>	0	21	526	13	-	560	0	18	481	17	-	516	0	4	23	8	-	35	0	1	12	64	-	77	0	1	12	64	-	77	1188
Lights <input type="checkbox"/>	-	100.0	99.4	100.0	-	99.5	-	100.0	99.4	94.4	-	99.2	-	100.0	95.8	100.0	-	97.2	-	100.0	80.0	100.0	-	96.3	-	100.0	80.0	100.0	-	96.3	99.1
Buses <input type="checkbox"/>	0	0	2	0	-	2	0	0	2	1	-	3	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	5
Buses <input type="checkbox"/>	-	0.0	0.4	0.0	-	0.4	-	0.0	0.4	5.6	-	0.6	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Single-Unit Trucks <input type="checkbox"/>	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	0	0	2	0	-	2	0	0	2	0	-	2	4
Single-Unit Trucks <input type="checkbox"/>	-	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	13.3	0.0	-	2.5	-	0.0	13.3	0.0	-	2.5	0.3
Articulated Trucks <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	1
Articulated Trucks <input type="checkbox"/>	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	4.2	0.0	-	2.8	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	1	0	-	1	1
Bicycles on Road <input type="checkbox"/>	-	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	6.7	0.0	-	1.3	-	0.0	6.7	0.0	-	1.3	0.1
Pedestrians <input type="checkbox"/>	-	-	-	-	-	10	-	-	-	-	-	4	-	-	-	-	-	15	-	-	-	-	-	5	-	-	-	-	-	5	-
Pedestrians <input type="checkbox"/>	-	-	-	-	-	100.0	-	-	-	-	-	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

Count Name: Washington Boulevard with
Wesley Avenue
Site Code:
Start Date: 02/15/2020
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Turning Movement Data

Start Time	Washington Boulevard Eastbound					Washington Boulevard Westbound					Wesley Avenue Northbound					Wesley Avenue Southbound									
	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	Int. Total
12:00 PM	0	1	72	2	4	75	0	5	68	1	0	74	0	1	3	1	0	5	0	1	3	1	0	5	159
12:15 PM	0	0	81	1	1	82	0	0	78	1	0	79	0	1	3	2	0	6	0	2	3	1	2	6	173
12:30 PM	0	1	90	3	0	94	0	6	61	1	0	68	0	3	3	2	0	8	0	1	9	3	2	13	183
12:45 PM	0	2	90	2	0	94	0	2	83	1	0	86	0	6	4	1	0	11	0	0	8	3	0	11	202
Hourly Total	0	4	333	8	5	345	0	13	290	4	0	307	0	11	13	6	0	30	0	4	23	8	4	35	717
1:00 PM	0	5	75	0	0	80	0	1	73	1	2	75	0	0	0	4	1	4	0	0	3	3	1	6	165
1:15 PM	0	1	75	3	1	79	0	2	74	1	0	77	0	2	3	5	1	10	0	1	4	4	1	9	175
1:30 PM	0	2	78	5	0	85	0	4	86	1	2	91	0	1	6	1	0	8	0	0	4	3	1	7	191
1:45 PM	0	1	87	6	0	94	0	3	74	0	0	77	0	3	1	6	0	10	0	1	5	0	1	6	187
Hourly Total	0	9	315	14	1	338	0	10	307	3	4	320	0	6	10	16	2	32	0	2	16	10	4	28	718
BREAK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
7:00 AM	0	7	104	1	1	112	0	3	95	0	0	98	0	1	5	4	0	10	0	0	4	2	2	6	226
7:15 AM	0	6	122	2	1	130	0	8	88	2	0	98	0	3	5	2	0	10	0	0	4	6	3	10	248
7:30 AM	0	4	133	4	0	141	0	2	95	1	0	98	0	2	15	1	0	18	0	3	6	3	6	12	269
7:45 AM	0	6	152	2	1	160	0	10	121	1	0	132	0	2	22	5	0	29	0	0	11	4	3	15	336
Hourly Total	0	23	511	9	3	543	0	23	399	4	0	426	0	8	47	12	0	67	0	3	25	15	14	43	1079
8:00 AM	0	2	95	1	1	98	0	1	136	0	0	137	0	5	3	1	0	9	0	0	4	6	5	10	254
8:15 AM	0	2	84	2	2	88	0	4	94	0	0	98	0	4	4	0	1	8	0	1	3	3	0	7	201
8:30 AM	0	2	71	2	0	75	0	1	86	0	0	87	0	2	6	3	0	11	0	2	2	2	6	6	179
8:45 AM	0	4	61	0	0	65	0	0	66	1	0	67	0	0	3	1	0	4	0	0	6	4	4	10	146
Hourly Total	0	10	311	5	3	326	0	6	382	1	0	389	0	11	16	5	1	32	0	3	15	15	15	33	780
BREAK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4:00 PM	0	4	96	1	1	101	0	1	122	1	0	124	0	2	2	2	0	6	0	0	5	2	2	7	238
4:15 PM	0	0	111	3	0	114	0	2	117	1	0	120	0	1	2	0	0	3	0	2	3	5	2	10	247
4:30 PM	0	2	105	1	0	108	0	4	115	1	1	120	0	2	6	6	0	14	0	0	3	1	11	4	246
4:45 PM	0	2	98	2	2	102	0	1	110	4	0	115	0	2	3	2	0	7	0	1	4	5	10	10	234
Hourly Total	0	8	410	7	3	425	0	8	464	7	1	479	0	7	13	10	0	30	0	3	15	13	25	31	965
5:00 PM	0	9	121	1	2	131	0	4	134	2	1	140	0	2	4	1	0	7	0	0	4	5	2	9	287
5:15 PM	0	4	126	5	0	135	0	3	110	3	0	116	0	2	9	7	0	18	0	0	8	2	2	10	279
5:30 PM	0	2	130	1	3	135	0	4	115	2	0	121	0	3	4	7	0	14	0	1	6	8	8	15	283
5:45 PM	0	2	132	6	1	140	0	5	130	3	0	138	0	5	8	5	0	18	0	1	4	4	1	9	305
Hourly Total	0	17	509	13	6	539	0	16	489	10	1	515	0	12	25	20	0	57	0	2	22	19	13	43	1154
Grand Total	0	71	2389	56	21	2516	0	76	2331	29	6	2436	0	55	124	69	3	248	0	17	116	80	75	213	5413
Approach □	0.0	2.8	95.0	2.2	-	-	0.0	3.1	95.7	1.2	-	-	0.0	22.2	50.0	27.8	-	-	0.0	8.0	54.5	37.6	-	-	-
Total □	0.0	1.3	44.1	1.0	-	46.5	0.0	1.4	43.1	0.5	-	45.0	0.0	1.0	2.3	1.3	-	4.6	0.0	0.3	2.1	1.5	-	-	3.9

Lights	0	70	2370	52	-	2492	0	75	2300	29	-	2404	0	54	121	68	-	243	0	16	115	80	-	211	5350
□ Lights	-	98.6	99.2	92.9	-	99.0	-	98.7	98.7	100.0	-	98.7	-	98.2	97.6	98.6	-	98.0	-	94.1	99.1	100.0	-	99.1	98.8
Buses	0	0	10	2	-	12	0	1	21	0	-	22	0	0	1	1	-	2	0	0	0	0	-	0	36
□ Buses	-	0.0	0.4	3.6	-	0.5	-	1.3	0.9	0.0	-	0.9	-	0.0	0.0	0.8	-	0.8	-	0.0	0.0	0.0	-	0.0	0.7
Single-Unit Trucks	0	0	8	2	-	10	0	0	10	0	-	10	0	0	0	0	-	0	0	0	1	0	-	1	21
□ Single-Unit Trucks	-	0.0	0.3	3.6	-	0.4	-	0.0	0.4	0.0	-	0.4	-	0.0	0.0	0.0	-	0.0	-	0.0	0.9	0.0	-	0.5	0.4
Articulated Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	1
□ 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	-	5.9	0.0	0.0	-	0.5	0.0
Bicycles on Road	0	1	1	0	-	2	0	0	0	0	-	0	0	1	2	0	-	3	0	0	0	0	-	0	5
□ Bicycles on Road	-	1.4	0.0	0.0	-	0.1	-	0.0	0.0	0.0	-	0.0	-	1.8	1.6	0.0	-	1.2	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians	-	-	-	-	-	21	-	-	-	-	-	6	-	-	-	-	-	3	-	-	-	-	-	75	-
□ Pedestrians	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-



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Count Name: Washington Boulevard with
Wesley Avenue
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Start Date: 02/15/2020
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Turning Movement Peak Hour Data (12:30 PM)

Start Time	Washington Boulevard Eastbound						Washington Boulevard Westbound						Wesley Avenue Northbound						Wesley Avenue Southbound						
	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	Int. Total
12:30 PM	0	1	90	3	0	94	0	6	61	1	0	68	0	3	3	2	0	8	0	1	9	3	2	13	183
12:45 PM	0	2	90	2	0	94	0	2	83	1	0	86	0	6	4	1	0	11	0	0	8	3	0	11	202
1:00 PM	0	5	75	0	0	80	0	1	73	1	2	75	0	0	0	4	1	4	0	0	3	3	1	6	165
1:15 PM	0	1	75	3	1	79	0	2	74	1	0	77	0	2	3	5	1	10	0	1	4	4	1	9	175
Total	0	9	330	8	1	347	0	11	291	4	2	306	0	11	10	12	2	33	0	2	24	13	4	39	725
Approach <input type="checkbox"/>	0.0	2.6	95.1	2.3	-	-	0.0	3.6	95.1	1.3	-	-	0.0	33.3	30.3	36.4	-	-	0.0	5.1	61.5	33.3	-	-	-
Total <input type="checkbox"/>	0.0	1.2	45.5	1.1	-	47.9	0.0	1.5	40.1	0.6	-	42.2	0.0	1.5	1.4	1.7	-	4.6	0.0	0.3	3.3	1.8	-	5.4	-
PHF	0.000	0.450	0.917	0.667	-	0.923	0.000	0.458	0.877	1.000	-	0.890	0.000	0.458	0.625	0.600	-	0.750	0.000	0.500	0.667	0.813	-	0.750	0.897
Lights <input type="checkbox"/>	0	9	328	8	-	345	0	11	289	4	-	304	0	10	10	12	-	32	0	2	24	13	-	39	720
Lights <input type="checkbox"/>	-	100.0	99.4	100.0	-	99.4	-	100.0	99.3	100.0	-	99.3	-	90.9	100.0	100.0	-	97.0	-	100.0	100.0	100.0	-	100.0	99.3
Buses <input type="checkbox"/>	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	1
Buses <input type="checkbox"/>	-	0.0	0.3	0.0	-	0.3	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Single-Unit Trucks <input type="checkbox"/>	0	0	1	0	-	1	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	3
Single-Unit Trucks <input type="checkbox"/>	-	0.0	0.3	0.0	-	0.3	-	0.0	0.7	0.0	-	0.7	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Articulated Trucks <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
Articulated Trucks <input type="checkbox"/>	-	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 <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	0	0	0	0	-	0	1
Bicycles on Road <input type="checkbox"/>	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	9.1	0.0	0.0	-	3.0	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians <input type="checkbox"/>	-	-	-	-	1	-	-	-	-	-	2	-	-	-	-	-	2	-	-	-	-	-	4	-	-
Pedestrians <input type="checkbox"/>	-	-	-	-	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

Count Name: Washington Boulevard with
Wesley Avenue
Site Code:
Start Date: 02/15/2020
Page No: 4

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Washington Boulevard Eastbound						Washington Boulevard Westbound						Wesley Avenue Northbound						Wesley Avenue Southbound						
	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	Int. Total
7:30 AM	0	4	133	4	0	141	0	2	95	1	0	98	0	2	15	1	0	18	0	3	6	3	6	12	269
7:45 AM	0	6	152	2	1	160	0	10	121	1	0	132	0	2	22	5	0	29	0	0	11	4	3	15	336
8:00 AM	0	2	95	1	1	98	0	1	136	0	0	137	0	5	3	1	0	9	0	0	4	6	5	10	254
8:15 AM	0	2	84	2	2	88	0	4	94	0	0	98	0	4	4	0	1	8	0	1	3	3	0	7	201
Total	0	14	464	9	4	487	0	17	446	2	0	465	0	13	44	7	1	64	0	4	24	16	14	44	1060
Approach <input type="checkbox"/>	0.0	2.9	95.3	1.8	-	-	0.0	3.7	95.9	0.4	-	-	0.0	20.3	68.8	10.9	-	-	0.0	9.1	54.5	36.4	-	-	-
Total <input type="checkbox"/>	0.0	1.3	43.8	0.8	-	45.9	0.0	1.6	42.1	0.2	-	43.9	0.0	1.2	4.2	0.7	-	6.0	0.0	0.4	2.3	1.5	-	4.2	-
PHF	0.000	0.583	0.763	0.563	-	0.761	0.000	0.425	0.820	0.500	-	0.849	0.000	0.650	0.500	0.350	-	0.552	0.000	0.333	0.545	0.667	-	0.733	0.789
Lights <input type="checkbox"/>	0	14	459	7	-	480	0	17	440	2	-	459	0	13	42	6	-	61	0	3	24	16	-	43	1043
Lights <input type="checkbox"/>	-	100.0	98.9	77.8	-	98.6	-	100.0	98.7	100.0	-	98.7	-	100.0	95.5	85.7	-	95.3	-	75.0	100.0	100.0	-	97.7	98.4
Buses <input type="checkbox"/>	0	0	3	1	-	4	0	0	5	0	-	5	0	0	1	1	-	2	0	0	0	0	-	0	11
Buses <input type="checkbox"/>	-	0.0	0.6	11.1	-	0.8	-	0.0	1.1	0.0	-	1.1	-	0.0	2.3	14.3	-	3.1	-	0.0	0.0	0.0	-	0.0	1.0
Single-Unit Trucks <input type="checkbox"/>	0	0	2	1	-	3	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	4
Single-Unit Trucks <input type="checkbox"/>	-	0.0	0.4	11.1	-	0.6	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Articulated Trucks <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	0	-	1	1
Articulated Trucks <input type="checkbox"/>	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	25.0	0.0	0.0	-	2.3	0.1
Bicycles on Road <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
Bicycles on Road <input type="checkbox"/>	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	2.3	0.0	-	1.6	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians <input type="checkbox"/>	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	14	-	-
Pedestrians <input type="checkbox"/>	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	100.0	-



Kenig Lindgren O'Hara Aboona, Inc.
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Count Name: Washington Boulevard with
Wesley Avenue
Site Code:
Start Date: 02/15/2020
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Turning Movement Peak Hour Data (5:00 PM)

Start Time	Washington Boulevard Eastbound						Washington Boulevard Westbound						Wesley Avenue Northbound						Wesley Avenue Southbound						
	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	Int. Total
5:00 PM	0	9	121	1	2	131	0	4	134	2	1	140	0	2	4	1	0	7	0	0	4	5	2	9	287
5:15 PM	0	4	126	5	0	135	0	3	110	3	0	116	0	2	9	7	0	18	0	0	8	2	2	10	279
5:30 PM	0	2	130	1	3	133	0	4	115	2	0	121	0	3	4	7	0	14	0	1	6	8	8	15	283
5:45 PM	0	2	132	6	1	140	0	5	130	3	0	138	0	5	8	5	0	18	0	1	4	4	1	9	305
Total	0	17	509	13	6	539	0	16	489	10	1	515	0	12	25	20	0	57	0	2	22	19	13	43	1154
Approach <input type="checkbox"/>	0.0	3.2	94.4	2.4	-	-	0.0	3.1	95.0	1.9	-	-	0.0	21.1	43.9	35.1	-	-	0.0	4.7	51.2	44.2	-	-	-
Total <input type="checkbox"/>	0.0	1.5	44.1	1.1	-	46.7	0.0	1.4	42.4	0.9	-	44.6	0.0	1.0	2.2	1.7	-	4.9	0.0	0.2	1.9	1.6	-	3.7	-
PHF	0.000	0.472	0.964	0.542	-	0.963	0.000	0.800	0.912	0.833	-	0.920	0.000	0.600	0.694	0.714	-	0.792	0.000	0.500	0.688	0.594	-	0.717	0.946
Lights <input type="checkbox"/>	0	17	506	13	-	536	0	16	485	10	-	511	0	12	24	20	-	56	0	2	22	19	-	43	1146
Lights <input type="checkbox"/>	-	100.0	99.4	100.0	-	99.4	-	100.0	99.2	100.0	-	99.2	-	100.0	96.0	100.0	-	98.2	-	100.0	100.0	100.0	-	100.0	99.3
Buses <input type="checkbox"/>	0	0	2	0	-	2	0	0	3	0	-	3	0	0	0	0	-	0	0	0	0	0	-	0	5
Buses <input type="checkbox"/>	-	0.0	0.4	0.0	-	0.4	-	0.0	0.6	0.0	-	0.6	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.4
Single-Unit Trucks <input type="checkbox"/>	0	0	1	0	-	1	0	0	1	0	-	1	0	0	0	0	-	0	0	0	0	0	-	0	2
Single-Unit Trucks <input type="checkbox"/>	-	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	0.0	-	0.0	0.2
Articulated Trucks <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0
Articulated Trucks <input type="checkbox"/>	-	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 <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	1
Bicycles on Road <input type="checkbox"/>	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	4.0	0.0	-	1.8	-	0.0	0.0	0.0	-	0.0	0.1
Pedestrians <input type="checkbox"/>	-	-	-	-	6	-	-	-	-	-	1	-	-	-	-	-	-	0	-	-	-	-	13	-	-
Pedestrians <input type="checkbox"/>	-	-	-	-	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

Count Name: Wesley Avenue with Public Alley
Site Code:
Start Date: 02/15/2020
Page No: 1

Turning Movement Data

Start Time	Public Alley Eastbound					Public Alley Westbound					Wesley Avenue Northbound					Wesley Avenue Southbound											
	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	Int. Total		
12:00 PM	0	1	0	0	1	1	0	0	0	1	0	1	0	0	3	0	0	1	3	0	0	10	0	0	1	10	15
12:15 PM	0	0	0	0	2	0	0	1	0	0	0	1	0	1	8	0	0	1	9	0	0	9	0	0	0	9	19
12:30 PM	0	0	0	0	2	0	0	1	0	0	0	1	0	1	8	1	0	10	0	1	16	0	1	1	17	28	
12:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	11	1	0	12	0	0	12	1	0	0	13	25	
Hourly Total	0	1	0	0	6	1	0	2	0	1	0	3	0	2	30	2	2	34	0	1	47	1	2	49	87		
1:00 PM	0	0	0	1	1	1	0	0	0	0	0	0	1	0	5	1	0	7	0	0	4	0	0	0	4	12	
1:15 PM	0	0	0	1	0	1	0	0	0	1	0	1	0	0	8	1	0	9	1	0	6	0	0	0	7	18	
1:30 PM	0	0	0	2	0	2	0	2	0	0	0	2	0	1	10	0	0	11	1	0	12	0	2	13	28		
1:45 PM	0	0	0	2	0	2	0	0	0	0	0	0	0	0	11	1	0	12	0	1	13	0	1	14	28		
Hourly Total	0	0	0	6	1	6	0	2	0	1	0	3	1	1	34	3	0	39	2	1	35	0	3	38	86		
BREAK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
7:00 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	6	0	2	6	0	0	8	0	0	0	8	14	
7:15 AM	0	0	0	1	0	1	0	0	0	1	1	1	0	1	9	0	9	10	0	0	14	0	0	0	14	26	
7:30 AM	0	1	0	0	1	1	0	2	0	1	0	3	0	2	18	1	4	21	0	1	14	1	4	16	41		
7:45 AM	0	0	0	1	1	1	0	2	0	1	1	3	0	0	25	1	1	26	0	1	21	0	5	22	52		
Hourly Total	0	1	0	2	2	3	0	4	0	3	6	7	0	3	58	2	16	63	0	2	57	1	9	60	133		
8:00 AM	0	1	0	0	1	1	0	0	1	0	0	1	0	0	9	0	1	9	0	0	7	0	0	0	7	18	
8:15 AM	0	1	0	1	0	2	0	2	0	0	2	2	0	0	6	1	1	7	0	0	12	0	1	12	23		
8:30 AM	0	1	0	0	0	1	0	0	0	1	0	1	0	0	9	0	0	9	0	0	4	1	0	5	16		
8:45 AM	0	0	0	1	0	1	0	1	0	0	0	1	0	0	5	0	0	5	0	0	5	0	0	0	5	12	
Hourly Total	0	3	0	2	1	5	0	3	1	1	0	5	0	0	29	1	2	30	0	0	28	1	1	29	69		
BREAK	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
4:00 PM	0	0	0	0	1	0	0	1	0	0	0	1	0	2	9	1	0	12	0	0	8	0	0	0	8	21	
4:15 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	1	5	0	1	6	0	0	8	1	0	0	9	15	
4:30 PM	0	0	1	0	1	1	0	0	0	0	0	0	0	0	14	0	3	14	0	1	6	1	1	8	23		
4:45 PM	0	0	0	0	1	0	0	0	0	1	0	1	0	0	5	0	0	5	0	0	6	0	1	6	12		
Hourly Total	0	0	1	0	5	1	0	1	0	1	0	2	0	3	33	1	4	37	0	1	28	2	2	31	71		
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	9	1	0	11	0	2	6	1	0	0	9	20	
5:15 PM	0	0	0	1	0	1	0	1	0	1	0	2	0	1	18	1	3	20	0	0	16	0	1	16	39		
5:30 PM	0	0	0	0	4	0	0	2	0	1	0	3	0	1	13	0	2	14	0	0	10	0	2	10	27		
5:45 PM	0	0	0	0	0	0	0	2	0	0	0	2	0	2	20	0	1	22	0	1	10	0	0	11	35		
Hourly Total	0	0	0	1	5	1	0	5	0	2	0	7	0	5	60	2	6	67	0	3	42	1	3	46	121		
Grand Total	0	5	1	11	20	17	0	17	1	9	6	27	1	14	244	11	30	270	2	8	237	6	20	253	567		
Approach □	0.0	29.4	5.9	64.7	-	-	0.0	63.0	3.7	33.3	-	-	0.4	5.2	90.4	4.1	-	-	0.8	3.2	93.7	2.4	-	-	-		
Total □	0.0	0.9	0.2	1.9	-	3.0	0.0	3.0	0.2	1.6	-	4.8	0.2	2.5	43.0	1.9	-	47.6	0.4	1.4	41.8	1.1	-	44.6	-		

Lights	0	5	0	10	-	15	0	17	1	9	-	27	1	14	240	11	-	266	2	8	233	5	-	248	556
□ Lights	-	100.0	0.0	90.9	-	88.2	-	100.0	100.0	100.0	-	100.0	100.0	100.0	98.4	100.0	-	98.5	100.0	100.0	98.3	83.3	-	98.0	98.1
Buses	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	0	0	3	0	-	3	5
□ Buses	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.8	0.0	-	0.7	0.0	0.0	1.3	0.0	-	1.2	0.9
Single-Unit Trucks	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	1	-	2	2
□ Single-Unit 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	0.4	16.7	-	0.8	0.4
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	0.0
Bicycles on Road	0	0	1	1	-	2	0	0	0	0	-	0	0	0	2	0	-	2	0	0	0	0	-	0	4
□ Bicycles on Road	-	0.0	100.0	9.1	-	11.8	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.8	0.0	-	0.7	0.0	0.0	0.0	0.0	-	0.0	0.7
Pedestrians	-	-	-	-	20	-	-	-	-	-	6	-	-	-	-	-	30	-	-	-	-	-	20	-	-
□ Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Wesley Avenue with Public Alley
Site Code:
Start Date: 02/15/2020
Page No: 3

Turning Movement Peak Hour Data (12:30 PM)

Start Time	Public Alley Eastbound					Public Alley Westbound					Wesley Avenue Northbound					Wesley Avenue Southbound										
	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	Int. Total	
12:30 PM	0	0	0	0	2	0	0	1	0	0	0	1	0	1	8	1	1	0	10	0	0	16	0	1	17	28
12:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	11	1	0	12	0	0	12	1	0	13	25	
1:00 PM	0	0	0	1	1	1	0	0	0	0	0	0	1	0	5	1	0	7	0	0	4	0	0	4	12	
1:15 PM	0	0	0	1	0	1	0	0	0	1	0	1	0	0	8	1	0	9	1	0	6	0	0	7	18	
Total	0	0	0	2	4	2	0	1	0	1	0	2	1	1	32	4	0	38	1	1	38	1	1	41	83	
Approach <input type="checkbox"/>	0.0	0.0	0.0	100.0	-	-	0.0	50.0	0.0	50.0	-	-	2.6	2.6	84.2	10.5	-	-	2.4	2.4	92.7	2.4	-	-	-	
Total <input type="checkbox"/>	0.0	0.0	0.0	2.4	-	2.4	0.0	1.2	0.0	1.2	-	2.4	1.2	1.2	38.6	4.8	-	45.8	1.2	1.2	45.8	1.2	-	49.4	-	
PHF	0.000	0.000	0.000	0.500	-	0.500	0.000	0.250	0.000	0.250	-	0.500	0.250	0.250	0.727	1.000	-	0.792	0.250	0.250	0.594	0.250	-	0.603	0.741	
Lights <input type="checkbox"/>	0	0	0	1	-	1	0	1	0	1	-	2	1	1	31	4	-	37	1	1	37	1	-	40	80	
<input type="checkbox"/> Lights	-	-	-	50.0	-	50.0	-	100.0	-	100.0	-	100.0	100.0	100.0	96.9	100.0	-	97.4	100.0	100.0	97.4	100.0	-	97.6	96.4	
Buses <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	
<input type="checkbox"/> Buses	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	0.0	0.0	0.0	-	0.0	0.0	
Single-Unit Trucks <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1	
<input type="checkbox"/> Single-Unit 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	2.6	0.0	-	2.4	1.2	
Articulated Trucks <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	
<input type="checkbox"/> 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	
Bicycles on Road <input type="checkbox"/>	0	0	0	1	-	1	0	0	0	0	-	0	0	0	1	0	-	1	0	0	0	0	-	0	2	
<input type="checkbox"/> Bicycles on Road	-	-	-	50.0	-	50.0	-	0.0	-	0.0	-	0.0	0.0	0.0	3.1	0.0	-	2.6	0.0	0.0	0.0	0.0	-	0.0	2.4	
Pedestrians <input type="checkbox"/>	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-	
<input type="checkbox"/> Pedestrians	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	



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

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Wesley Avenue with Public Alley
Site Code:
Start Date: 02/15/2020
Page No: 4

Turning Movement Peak Hour Data (7:30 AM)

Start Time	Public Alley Eastbound					Public Alley Westbound					Wesley Avenue Northbound					Wesley Avenue Southbound										
	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	Int. Total	
7:30 AM	0	1	0	0	1	1	0	2	0	1	0	3	0	2	18	1	4	4	21	0	1	14	1	4	16	41
7:45 AM	0	0	0	1	1	1	0	2	0	1	1	3	0	0	25	1	1	1	26	0	1	21	0	5	22	52
8:00 AM	0	1	0	0	1	1	0	0	1	0	0	1	0	0	9	0	1	1	9	0	0	7	0	0	7	18
8:15 AM	0	1	0	1	0	2	0	2	0	0	1	2	0	0	6	1	1	1	7	0	0	12	0	1	12	23
Total	0	3	0	2	3	5	0	6	1	2	1	9	0	2	58	3	7	63	63	0	2	54	1	10	57	134
Approach <input type="checkbox"/>	0.0	60.0	0.0	40.0	-	-	0.0	66.7	11.1	22.2	-	-	0.0	3.2	92.1	4.8	-	-	-	0.0	3.5	94.7	1.8	-	-	-
Total <input type="checkbox"/>	0.0	2.2	0.0	1.5	-	3.7	0.0	4.5	0.7	1.5	-	6.7	0.0	1.5	43.3	2.2	-	-	47.0	0.0	1.5	40.3	0.7	-	42.5	-
PHF	0.000	0.750	0.000	0.500	-	0.625	0.000	0.750	0.250	0.500	-	0.750	0.000	0.250	0.580	0.750	-	-	0.606	0.000	0.500	0.643	0.250	-	0.648	0.644
Lights <input type="checkbox"/>	0	3	0	2	-	5	0	6	1	2	-	9	0	2	55	3	-	60	60	0	2	53	0	-	55	129
<input type="checkbox"/> Lights	-	100.0	-	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	-	100.0	94.8	100.0	-	95.2	95.2	-	100.0	98.1	0.0	-	96.5	96.3
Buses <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	2	0	-	2	2	0	0	1	0	-	1	3
<input type="checkbox"/> Buses	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	3.4	0.0	-	3.2	3.2	-	0.0	1.9	0.0	-	1.8	2.2
Single-Unit Trucks <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	1	-	1	1
<input type="checkbox"/> Single-Unit 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	100.0	-	1.8	0.7
Articulated Trucks <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	0	-	0	0
<input type="checkbox"/> 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
Bicycles on Road <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	1	0	-	1	1	0	0	0	0	-	0	1
<input type="checkbox"/> Bicycles on Road	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	1.7	0.0	-	1.6	1.6	-	0.0	0.0	0.0	-	0.0	0.7
Pedestrians <input type="checkbox"/>	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	7	-	-	-	-	-	-	10	-	-
<input type="checkbox"/> 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

Count Name: Wesley Avenue with Public Alley
Site Code:
Start Date: 02/15/2020
Page No: 5

Turning Movement Peak Hour Data (5:00 PM)

Start Time	Public Alley Eastbound						Public Alley Westbound						Wesley Avenue Northbound						Wesley Avenue Southbound							
	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	Int. Total	
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	9	1	0	0	11	0	2	6	1	0	9	20
5:15 PM	0	0	0	1	0	1	0	1	0	1	0	2	0	1	18	1	3	20	0	0	16	0	1	16	39	
5:30 PM	0	0	0	0	4	0	0	2	0	1	0	3	0	1	13	0	2	14	0	0	10	0	2	10	27	
5:45 PM	0	0	0	0	0	0	0	2	0	0	0	2	0	2	20	0	1	22	0	1	10	0	0	11	35	
Total	0	0	0	1	5	1	0	5	0	2	0	7	0	5	60	2	6	67	0	3	42	1	3	46	121	
Approach <input type="checkbox"/>	0.0	0.0	0.0	100.0	-	-	0.0	71.4	0.0	28.6	-	-	0.0	7.5	89.6	3.0	-	-	0.0	6.5	91.3	2.2	-	-	-	
Total <input type="checkbox"/>	0.0	0.0	0.0	0.8	-	0.8	0.0	4.1	0.0	1.7	-	5.8	0.0	4.1	49.6	1.7	-	55.4	0.0	2.5	34.7	0.8	-	38.0	-	
PHF	0.000	0.000	0.000	0.250	-	0.250	0.000	0.625	0.000	0.500	-	0.583	0.000	0.625	0.750	0.500	-	0.761	0.000	0.375	0.656	0.250	-	0.719	0.776	
Lights <input type="checkbox"/>	0	0	0	1	-	1	0	5	0	2	-	7	0	5	60	2	-	67	0	3	42	1	-	46	121	
<input type="checkbox"/> Lights	-	-	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	100.0	-	100.0	100.0	
Buses <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	
<input type="checkbox"/> Buses	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	
Single-Unit Trucks <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	
<input type="checkbox"/> Single-Unit 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	
Articulated Trucks <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	
<input type="checkbox"/> 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	
Bicycles on Road <input type="checkbox"/>	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	
<input type="checkbox"/> Bicycles on Road	-	-	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.0	
Pedestrians <input type="checkbox"/>	-	-	-	-	5	-	-	-	-	-	0	-	-	-	-	-	6	-	-	-	-	-	3	-	-	
<input type="checkbox"/> Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	

Madison Street with Wesley Avenue - TMC

Tue Jul 23, 2019

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)

All Movements

ID: 681426, Location: 41.879784, -87.791801



Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg Direction	Madison Street Westbound					Wesley Avenue Northbound					Madison Street Eastbound					Int
	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	
2019-07-23 7:00AM	142	2	0	144	1	2	4	0	6	0	0	122	0	122	0	272
7:15AM	132	1	0	133	2	1	1	0	2	6	0	138	0	138	0	273
7:30AM	163	6	0	169	1	4	2	0	6	2	3	145	0	148	1	323
7:45AM	158	8	1	167	1	4	1	0	5	1	1	145	0	146	0	318
Hourly Total	595	17	1	613	5	11	8	0	19	9	4	550	0	554	1	1186
8:00AM	163	3	0	166	0	2	3	0	5	4	3	141	0	144	0	315
8:15AM	141	6	0	147	3	2	2	0	4	1	1	154	0	155	0	306
8:30AM	133	3	0	136	0	1	2	0	3	3	1	130	0	131	0	270
8:45AM	139	2	0	141	2	1	3	0	4	6	2	121	0	123	0	268
Hourly Total	576	14	0	590	5	6	10	0	16	14	7	546	0	553	0	1159
4:00PM	149	10	0	159	0	3	0	0	3	6	4	182	0	186	0	348
4:15PM	143	7	2	152	0	5	2	0	7	3	2	167	0	169	0	328
4:30PM	148	4	1	153	0	2	1	0	3	2	3	183	0	186	0	342
4:45PM	140	4	0	144	0	2	1	0	3	3	3	190	0	193	0	340
Hourly Total	580	25	3	608	0	12	4	0	16	14	12	722	0	734	0	1358
5:00PM	152	11	0	163	1	5	0	0	5	2	3	221	0	224	0	392
5:15PM	159	11	0	170	1	1	1	0	2	0	2	206	0	208	0	380
5:30PM	151	2	0	153	0	3	3	0	6	1	3	204	0	207	0	366
5:45PM	152	7	0	159	0	3	0	0	3	2	4	189	0	193	0	355
Hourly Total	614	31	0	645	2	12	4	0	16	5	12	820	0	832	0	1493
Total	2365	87	4	2456	12	41	26	0	67	42	35	2638	0	2673	1	5196
% Approach	96.3%	3.5%	0.2%	-	-	61.2%	38.8%	0%	-	-	1.3%	98.7%	0%	-	-	-
% Total	45.5%	1.7%	0.1%	47.3%	-	0.8%	0.5%	0%	1.3%	-	0.7%	50.8%	0%	51.4%	-	-
Lights	2297	86	4	2387	-	38	24	0	62	-	33	2589	0	2622	-	5071
% Lights	97.1%	98.9%	100%	97.2%	-	92.7%	92.3%	0%	92.5%	-	94.3%	98.1%	0%	98.1%	-	97.6%
Single-Unit Trucks	49	0	0	49	-	0	0	0	0	-	1	31	0	32	-	81
% Single-Unit Trucks	2.1%	0%	0%	2.0%	-	0%	0%	0%	0%	-	2.9%	1.2%	0%	1.2%	-	1.6%
Articulated Trucks	5	0	0	5	-	0	0	0	0	-	0	3	0	3	-	8
% Articulated Trucks	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	-	0%	0.1%	0%	0.1%	-	0.2%
Buses	12	1	0	13	-	0	0	0	0	-	0	10	0	10	-	23
% Buses	0.5%	1.1%	0%	0.5%	-	0%	0%	0%	0%	-	0%	0.4%	0%	0.4%	-	0.4%
Bicycles on Road	2	0	0	2	-	3	2	0	5	-	1	5	0	6	-	13
% Bicycles on Road	0.1%	0%	0%	0.1%	-	7.3%	7.7%	0%	7.5%	-	2.9%	0.2%	0%	0.2%	-	0.3%
Pedestrians	-	-	-	-	12	-	-	-	-	42	-	-	-	-	1	-
% Pedestrians	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	100%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Madison Street with Wesley Avenue - TMC

Tue Jul 23, 2019

AM Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)

All Movements

ID: 681426, Location: 41.879784, -87.791801



Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg Direction	Madison Street Westbound					Wesley Avenue Northbound					Madison Street Eastbound					Int
	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	
2019-07-23 7:30AM	163	6	0	169	1	4	2	0	6	2	3	145	0	148	1	323
7:45AM	158	8	1	167	1	4	1	0	5	1	1	145	0	146	0	318
8:00AM	163	3	0	166	0	2	3	0	5	4	3	141	0	144	0	315
8:15AM	141	6	0	147	3	2	2	0	4	1	1	154	0	155	0	306
Total	625	23	1	649	5	12	8	0	20	8	8	585	0	593	1	1262
% Approach	96.3%	3.5%	0.2%	-	-	60.0%	40.0%	0%	-	-	1.3%	98.7%	0%	-	-	-
% Total	49.5%	1.8%	0.1%	51.4%	-	1.0%	0.6%	0%	1.6%	-	0.6%	46.4%	0%	47.0%	-	-
PHF	0.959	0.719	0.250	0.960	-	0.750	0.500	-	0.750	-	0.667	0.948	-	0.955	-	0.978
Lights	607	23	1	631	-	9	6	0	15	-	8	569	0	577	-	1223
% Lights	97.1%	100%	100%	97.2%	-	75.0%	75.0%	0%	75.0%	-	100%	97.3%	0%	97.3%	-	96.9%
Single-Unit Trucks	14	0	0	14	-	0	0	0	0	-	0	10	0	10	-	24
% Single-Unit Trucks	2.2%	0%	0%	2.2%	-	0%	0%	0%	0%	-	0%	1.7%	0%	1.7%	-	1.9%
Articulated Trucks	1	0	0	1	-	0	0	0	0	-	0	1	0	1	-	2
% Articulated Trucks	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	-	0%	0.2%	0%	0.2%	-	0.2%
Buses	3	0	0	3	-	0	0	0	0	-	0	4	0	4	-	7
% Buses	0.5%	0%	0%	0.5%	-	0%	0%	0%	0%	-	0%	0.7%	0%	0.7%	-	0.6%
Bicycles on Road	0	0	0	0	-	3	2	0	5	-	0	1	0	1	-	6
% Bicycles on Road	0%	0%	0%	0%	-	25.0%	25.0%	0%	25.0%	-	0%	0.2%	0%	0.2%	-	0.5%
Pedestrians	-	-	-	-	5	-	-	-	-	8	-	-	-	-	1	-
% Pedestrians	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	100%	-

* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

Madison Street with Wesley Avenue - TMC

Tue Jul 23, 2019

PM Peak (5 PM - 6 PM) - Overall Peak Hour

All Classes (Lights, Single-Unit Trucks, Articulated Trucks, Buses, Pedestrians, Bicycles on Road)

All Movements

ID: 681426, Location: 41.879784, -87.791801



Provided by: Kenig Lindgren O'Hara Aboona, Inc.
9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

Leg Direction	Madison Street Westbound					Wesley Avenue Northbound					Madison Street Eastbound					Int
	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	
2019-07-23 5:00PM	152	11	0	163	1	5	0	0	5	2	3	221	0	224	0	392
5:15PM	159	11	0	170	1	1	1	0	2	0	2	206	0	208	0	380
5:30PM	151	2	0	153	0	3	3	0	6	1	3	204	0	207	0	366
5:45PM	152	7	0	159	0	3	0	0	3	2	4	189	0	193	0	355
Total	614	31	0	645	2	12	4	0	16	5	12	820	0	832	0	1493
% Approach	95.2%	4.8%	0%	-	-	75.0%	25.0%	0%	-	-	1.4%	98.6%	0%	-	-	-
% Total	41.1%	2.1%	0%	43.2%	-	0.8%	0.3%	0%	1.1%	-	0.8%	54.9%	0%	55.7%	-	-
PHF	0.965	0.705	-	0.949	-	0.600	0.333	-	0.667	-	0.750	0.930	-	0.930	-	0.953
Lights	596	31	0	627	-	12	4	0	16	-	12	813	0	825	-	1468
% Lights	97.1%	100%	0%	97.2%	-	100%	100%	0%	100%	-	100%	99.1%	0%	99.2%	-	98.3%
Single-Unit Trucks	14	0	0	14	-	0	0	0	0	-	0	2	0	2	-	16
% Single-Unit Trucks	2.3%	0%	0%	2.2%	-	0%	0%	0%	0%	-	0%	0.2%	0%	0.2%	-	1.1%
Articulated Trucks	1	0	0	1	-	0	0	0	0	-	0	1	0	1	-	2
% Articulated Trucks	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	-	0%	0.1%	0%	0.1%	-	0.1%
Buses	3	0	0	3	-	0	0	0	0	-	0	2	0	2	-	5
% Buses	0.5%	0%	0%	0.5%	-	0%	0%	0%	0%	-	0%	0.2%	0%	0.2%	-	0.3%
Bicycles on Road	0	0	0	0	-	0	0	0	0	-	0	2	0	2	-	2
% Bicycles on Road	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0.2%	0%	0.2%	-	0.1%
Pedestrians	-	-	-	-	2	-	-	-	-	5	-	-	-	-	-	0
% Pedestrians	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	-	-

*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn



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

Rosemont, Illinois, United States 60018
(847)518-9990

Count Name: Madison Street and East Avenue
Site Code:
Start Date: 05/18/2016
Page No: 1

Turning Movement Data

Start Time	Madison Street Eastbound						Madison Street Westbound						East Avenue Northbound						East Avenue Southbound								
	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	Int. Total		
7:00 AM	0	22	247	3	4	272	0	3	145	11	0	159	0	6	31	10	3	47	0	14	32	13	15	59	537		
7:15 AM	0	45	223	6	8	274	0	7	193	11	4	211	0	18	67	10	2	95	0	19	26	17	43	62	642		
7:30 AM	0	46	247	9	18	302	0	4	233	20	35	257	0	21	79	7	3	107	0	15	31	15	66	61	727		
7:45 AM	0	46	266	6	6	318	0	6	238	9	21	253	0	26	73	14	3	113	0	15	53	21	39	89	773		
Hourly Total	0	159	983	24	36	1166	0	20	809	51	60	880	0	71	250	41	11	362	0	63	142	66	163	271	2679		
8:00 AM	0	12	209	12	1	233	0	17	231	10	1	258	0	8	36	6	3	50	0	17	39	13	2	69	610		
8:15 AM	0	10	239	4	2	253	0	7	192	5	6	204	0	18	25	5	2	48	0	11	22	12	3	45	550		
8:30 AM	0	6	184	2	1	192	0	9	201	3	0	213	0	12	44	7	2	63	0	7	24	6	3	37	505		
8:45 AM	0	6	217	4	2	227	1	1	195	5	1	202	0	13	33	12	2	58	0	16	28	14	5	58	545		
Hourly Total	0	34	849	22	6	905	1	34	819	23	8	877	0	51	138	30	9	219	0	51	113	45	13	209	2210		
■■■■BREAK ■■■■																											
4:00 PM	0	11	198	12	2	221	1	10	223	9	4	243	0	8	28	10	1	46	0	3	49	19	2	71	581		
4:15 PM	0	16	197	13	5	226	0	11	217	10	3	238	0	12	50	11	1	73	0	11	35	14	1	60	597		
4:30 PM	0	21	205	10	3	236	0	9	201	10	7	220	0	11	39	10	7	60	0	8	40	17	1	65	581		
4:45 PM	0	12	212	5	8	229	0	8	204	16	2	228	0	12	37	9	2	58	0	8	61	12	3	81	596		
Hourly Total	0	60	812	40	18	912	1	38	845	45	16	929	0	43	154	40	11	237	0	30	185	62	7	277	2355		
5:00 PM	0	13	213	23	3	249	0	11	247	11	7	269	0	9	49	11	2	69	0	8	73	24	10	105	692		
5:15 PM	0	18	227	9	5	254	0	16	225	15	5	256	0	17	52	15	3	84	0	11	64	29	10	104	698		
5:30 PM	0	22	234	11	3	267	0	8	225	15	3	248	0	14	54	7	4	75	0	8	78	13	7	99	689		
5:45 PM	0	20	220	15	3	255	0	12	197	13	1	222	0	9	45	12	2	66	0	15	70	20	3	105	648		
Hourly Total	0	73	894	58	14	1025	0	47	894	54	16	995	0	49	200	45	11	294	0	42	285	86	30	413	2727		
Grand Total	0	326	3538	144	74	4008	2	139	3367	173	100	3681	0	214	742	156	42	1112	0	186	725	259	213	1170	9971		
Approach ■	0.0	8.1	88.3	3.6	-	-	0.1	3.8	91.5	4.7	-	-	0.0	19.2	66.7	14.0	-	-	0.0	15.9	62.0	22.1	-	-	-		
Total ■	0.0	3.3	35.5	1.4	-	40.2	0.0	1.4	33.8	1.7	-	36.9	0.0	2.1	7.4	1.6	-	11.2	0.0	1.9	7.3	2.6	-	11.7	-		
Lights	0	320	3461	142	-	3923	2	139	3260	167	-	3568	0	213	711	154	-	1078	0	183	708	253	-	1144	9713		
■ Lights	-	98.2	97.8	98.6	-	97.9	100.0	100.0	96.8	96.5	-	96.9	-	99.5	95.8	98.7	-	96.9	-	98.4	97.7	97.7	-	97.8	97.4		
Buses	0	6	23	1	-	30	0	0	34	4	-	38	0	1	4	1	-	6	0	0	3	5	-	8	82		
■ Buses	-	1.8	0.7	0.7	-	0.7	0.0	0.0	1.0	2.3	-	1.0	-	0.5	0.5	0.6	-	0.5	-	0.0	0.4	1.9	-	0.7	0.8		
Single-Unit Trucks	0	0	48	1	-	49	0	0	58	0	-	58	0	0	3	1	-	4	0	3	3	1	-	7	118		
■ Single-Unit Trucks	-	0.0	1.4	0.7	-	1.2	0.0	0.0	1.7	0.0	-	1.6	-	0.0	0.4	0.6	-	0.4	-	1.6	0.4	0.4	-	0.6	1.2		
Articulated Trucks	0	0	6	0	-	6	0	0	6	0	-	6	0	0	0	0	-	0	0	0	0	0	-	0	12		
■ Articulated Trucks	-	0.0	0.2	0.0	-	0.1	0.0	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1		
Bicycles on Road	0	0	0	0	-	0	0	0	9	2	-	11	0	0	24	0	-	24	0	0	11	0	-	11	46		
■ Bicycles on Road	-	0.0	0.0	0.0	-	0.0	0.0	0.0	0.3	1.2	-	0.3	-	0.0	3.2	0.0	-	2.2	-	0.0	1.5	0.0	-	0.9	0.5		
Pedestrians	-	-	-	-	-	74	-	-	-	-	-	100	-	-	-	-	-	42	-	-	-	-	-	213	-		



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Count Name: Madison Street and East Avenue
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Turning Movement Peak Hour Data (7:15 AM)

Start Time	Madison Street Eastbound					Madison Street Westbound					East Avenue Northbound					East Avenue Southbound									
	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	Int. Total
7:15 AM	0	45	223	6	8	274	0	7	193	11	4	211	0	18	67	10	2	95	0	19	26	17	43	62	642
7:30 AM	0	46	247	9	18	302	0	4	233	20	35	257	0	21	79	7	3	107	0	15	31	15	66	61	727
7:45 AM	0	46	266	6	6	318	0	6	238	9	21	253	0	26	73	14	3	113	0	15	53	21	39	89	773
8:00 AM	0	12	209	12	1	233	0	17	231	10	1	258	0	8	36	6	3	50	0	17	39	13	2	69	610
Total	0	149	945	33	33	1127	0	34	895	50	61	979	0	73	255	37	11	365	0	66	149	66	150	281	2752
Approach	0.0	13.2	83.9	2.9	-	-	0.0	3.5	91.4	5.1	-	-	0.0	20.0	69.9	10.1	-	-	0.0	23.5	53.0	23.5	-	-	-
Total	0.0	5.4	34.3	1.2	-	41.0	0.0	1.2	32.5	1.8	-	35.6	0.0	2.7	9.3	1.3	-	13.3	0.0	2.4	5.4	2.4	-	10.2	-
PHF	0.000	0.810	0.888	0.688	-	0.886	0.000	0.500	0.940	0.625	-	0.949	0.000	0.702	0.807	0.661	-	0.808	0.000	0.868	0.703	0.786	-	0.789	0.890
Lights	0	146	915	31	-	1092	0	34	860	46	-	940	0	72	236	36	-	344	0	65	147	64	-	276	2652
□ Lights	-	98.0	96.8	93.9	-	96.9	-	100.0	96.1	92.0	-	96.0	-	98.6	92.5	97.3	-	94.2	-	98.5	98.7	97.0	-	98.2	96.4
Buses	0	3	10	1	-	14	0	0	8	4	-	12	0	1	2	0	-	3	0	0	0	2	-	2	31
□ Buses	-	2.0	1.1	3.0	-	1.2	-	0.0	0.9	8.0	-	1.2	-	1.4	0.8	0.0	-	0.8	-	0.0	0.0	3.0	-	0.7	1.1
Single-Unit Trucks	0	0	16	1	-	17	0	0	22	0	-	22	0	0	1	1	-	2	0	1	1	0	-	2	43
□ Single-Unit Trucks	-	0.0	1.7	3.0	-	1.5	-	0.0	2.5	0.0	-	2.2	-	0.0	0.4	2.7	-	0.5	-	1.5	0.7	0.0	-	0.7	1.6
Articulated Trucks	0	0	4	0	-	4	0	0	2	0	-	2	0	0	0	0	-	0	0	0	0	0	-	0	6
□ Articulated Trucks	-	0.0	0.4	0.0	-	0.4	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.2
Bicycles on Road	0	0	0	0	-	0	0	0	3	0	-	3	0	0	16	0	-	16	0	0	1	0	-	1	20
□ Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.3	0.0	-	0.3	-	0.0	6.3	0.0	-	4.4	-	0.0	0.7	0.0	-	0.4	0.7
Pedestrians	-	-	-	-	33	-	-	-	-	-	61	-	-	-	-	-	11	-	-	-	-	-	150	-	-
□ Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-



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Count Name: Madison Street and East Avenue
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Turning Movement Peak Hour Data (5:00 PM)

Start Time	Madison Street Eastbound						Madison Street Westbound						East Avenue Northbound						East Avenue Southbound						
	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	Int. Total
5:00 PM	0	13	213	23	3	249	0	11	247	11	7	269	0	9	49	11	2	69	0	8	73	24	10	105	692
5:15 PM	0	18	227	9	5	254	0	16	225	15	5	256	0	17	52	15	3	84	0	11	64	29	10	104	698
5:30 PM	0	22	234	11	3	267	0	8	225	15	3	248	0	14	54	7	4	75	0	8	78	13	7	99	689
5:45 PM	0	20	220	15	3	255	0	12	197	13	1	222	0	9	45	12	2	66	0	15	70	20	3	105	648
Total	0	73	894	58	14	1025	0	47	894	54	16	995	0	49	200	45	11	294	0	42	285	86	30	413	2727
Approach	0.0	7.1	87.2	5.7	-	-	0.0	4.7	89.8	5.4	-	-	0.0	16.7	68.0	15.3	-	-	0.0	10.2	69.0	20.8	-	-	-
Total	0.0	2.7	32.8	2.1	-	37.6	0.0	1.7	32.8	2.0	-	36.5	0.0	1.8	7.3	1.7	-	10.8	0.0	1.5	10.5	3.2	-	15.1	-
PHF	0.000	0.830	0.955	0.630	-	0.960	0.000	0.734	0.905	0.900	-	0.925	0.000	0.721	0.926	0.750	-	0.875	0.000	0.700	0.913	0.741	-	0.983	0.977
Lights	0	72	890	58	-	1020	0	47	876	54	-	977	0	49	196	45	-	290	0	41	283	84	-	408	2695
Lights	-	98.6	99.6	100.0	-	99.5	-	100.0	98.0	100.0	-	98.2	-	100.0	98.0	100.0	-	98.6	-	97.6	99.3	97.7	-	98.8	98.8
Buses	0	1	1	0	-	2	0	0	6	0	-	6	0	0	1	0	-	1	0	0	0	1	-	1	10
Buses	-	1.4	0.1	0.0	-	0.2	-	0.0	0.7	0.0	-	0.6	-	0.0	0.5	0.0	-	0.3	-	0.0	0.0	1.2	-	0.2	0.4
Single-Unit Trucks	0	0	2	0	-	2	0	0	5	0	-	5	0	0	0	0	-	0	0	1	0	1	-	2	9
Single-Unit Trucks	-	0.0	0.2	0.0	-	0.2	-	0.0	0.6	0.0	-	0.5	-	0.0	0.0	0.0	-	0.0	-	2.4	0.0	1.2	-	0.5	0.3
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	0.1	0.0	-	0.1	-	0.0	0.2	0.0	-	0.2	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	0.0	-	0.0	0.1
Bicycles on Road	0	0	0	0	-	0	0	0	5	0	-	5	0	0	3	0	-	3	0	0	2	0	-	2	10
Bicycles on Road	-	0.0	0.0	0.0	-	0.0	-	0.0	0.6	0.0	-	0.5	-	0.0	1.5	0.0	-	1.0	-	0.0	0.7	0.0	-	0.5	0.4
Pedestrians	-	-	-	-	14	-	-	-	-	-	16	-	-	-	-	-	11	-	-	-	-	-	30	-	-
Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

Saturday December January 11, 2020
 Madison Street and Wesley Avenue (North Leg)

	Eastbound Left	Westbound Right	Southbound Left	Southbound Through	Southbound Right
12:30 P.M.	6	5	1	0	1
12:45 P.M.	6	2	2	4	10
1:00 P.M.	9	2	2	1	8
1:15 P.M.	4	4	2	4	8
Total	25	13	7	9	27



Preliminary Engineering Plans

ITE Trip Generation Sheets

Land Use: 850 Supermarket

Description

A supermarket is a free-standing retail store selling a complete assortment of food, food preparation and wrapping materials, and household cleaning items. Supermarkets may also contain the following products and services: ATMs, automobile supplies, bakeries, books and magazines, dry cleaning, floral arrangements, greeting cards, limited-service banks, photo centers, pharmacies, and video rental areas. Some facilities may be open 24 hours a day. Discount supermarket (Land Use 854) is a related use.

Additional Data

Caution should be used when applying daily trip generation rates for supermarkets, as the database contains a mixture of facilities with varying hours of operation. Future data submissions should specify hours of operation of a site.

Time-of-day distribution data for this land use for a weekday, Saturday, and Sunday are presented in Appendix A. For the one general urban/suburban site with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 11:00 a.m. and 12:00 p.m. and 4:00 and 5:00 p.m., respectively. For the one dense multi-use urban site with data, the overall highest vehicle volumes during the AM and PM on a weekday were counted between 11:45 a.m. and 12:45 p.m. and 5:15 and 6:15 p.m., respectively.

The sites were surveyed in the 1980s, the 1990s, the 2000s, and the 2010s in Alberta (CAN), California, Colorado, Connecticut, District of Columbia, Florida, Illinois, Kentucky, Maryland, Minnesota, New Jersey, New York, Oregon, Pennsylvania, South Dakota, Texas, Vermont, Virginia, Washington, and Wisconsin.

Source Numbers

213, 251, 273, 305, 359, 365, 438, 442, 447, 448, 514, 520, 552, 577, 610, 715, 716, 728, 746, 854, 870, 882, 917, 926, 935, 946, 961, 966, 975

Supermarket (850)

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

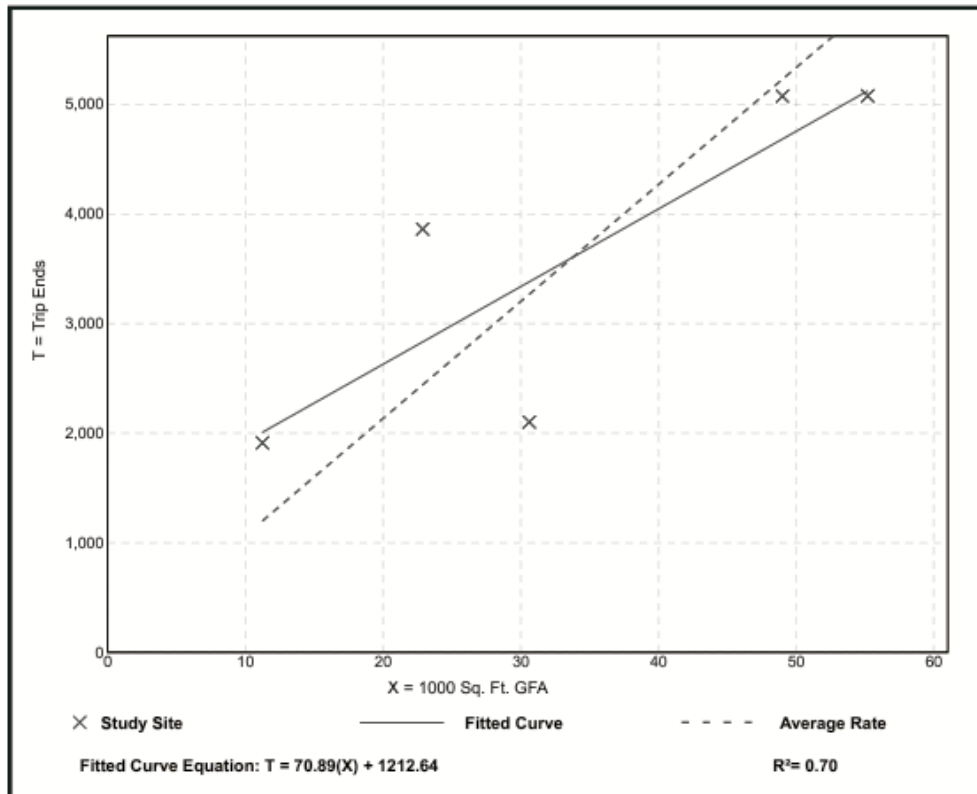
Setting/Location: General Urban/Suburban
Number of Studies: 5
1000 Sq. Ft. GFA: 34
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
106.78	68.67 - 170.24	37.56

Data Plot and Equation

Caution – Small Sample Size



Supermarket (850)

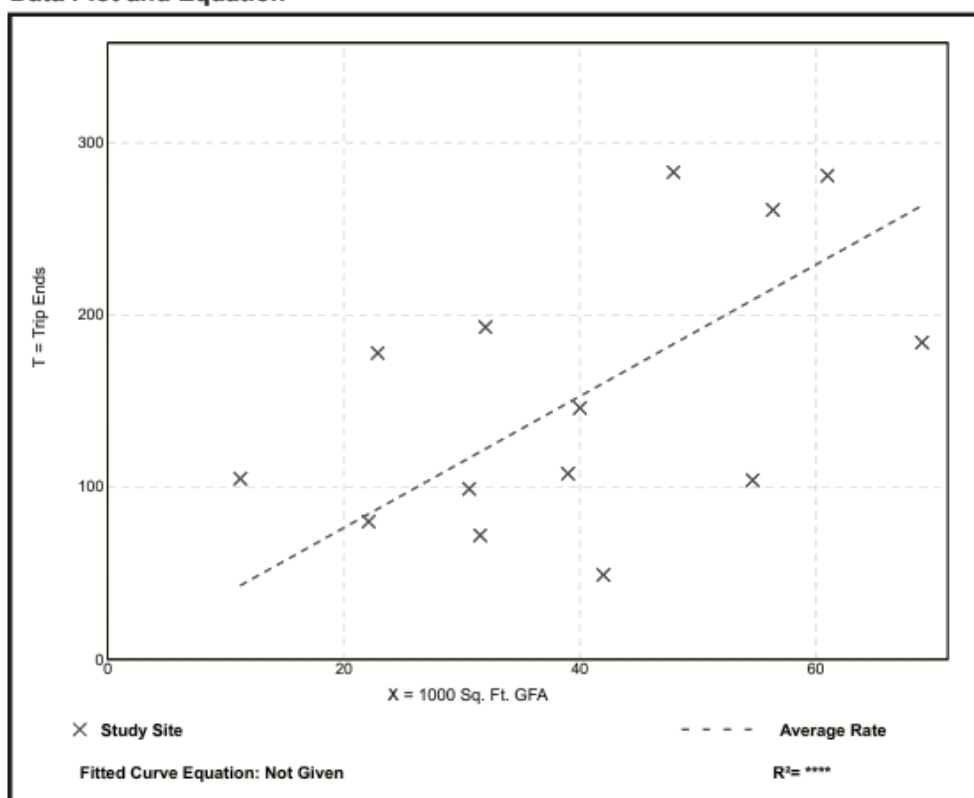
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Setting/Location: General Urban/Suburban
 Number of Studies: 14
 1000 Sq. Ft. GFA: 40
 Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.82	1.17 - 9.35	1.89

Data Plot and Equation



Supermarket (850)

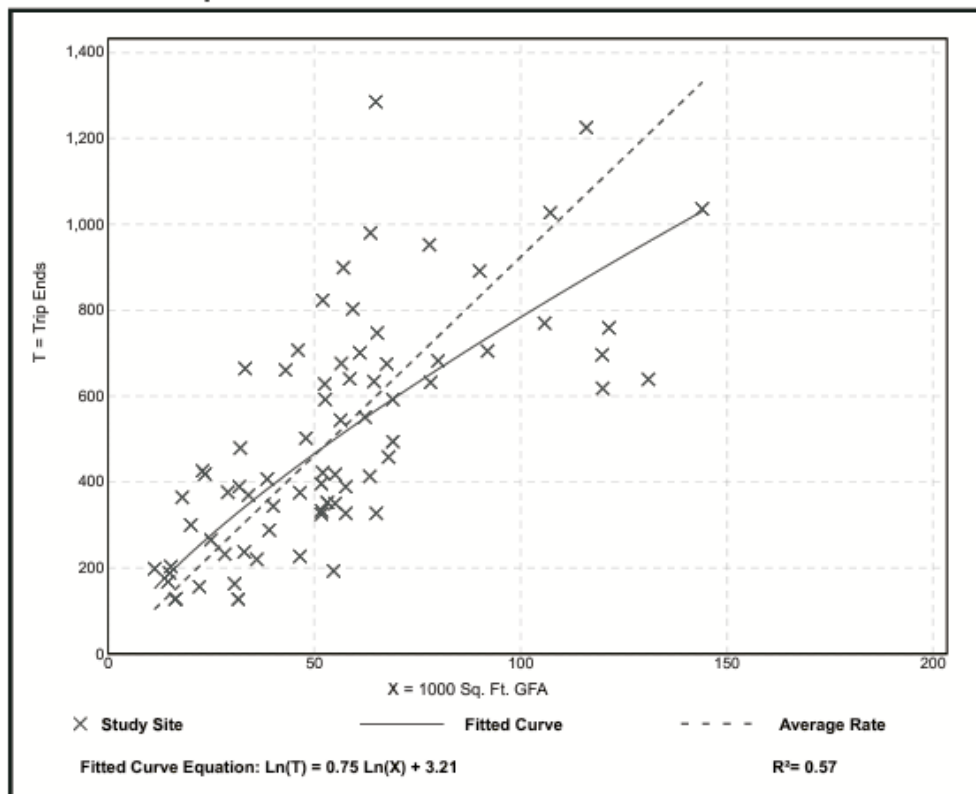
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Setting/Location: General Urban/Suburban
 Number of Studies: 73
 1000 Sq. Ft. GFA: 55
 Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.24	3.53 - 20.30	3.69

Data Plot and Equation



Supermarket (850)

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

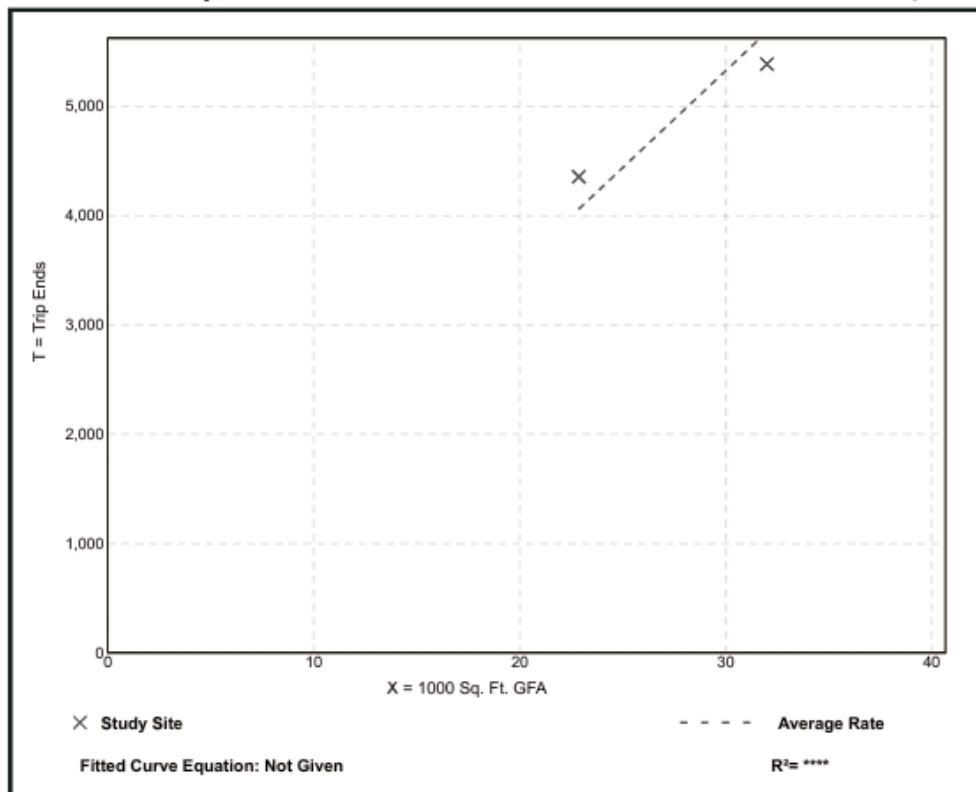
Setting/Location: General Urban/Suburban
Number of Studies: 2
1000 Sq. Ft. GFA: 27
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
177.62	168.41 - 190.51	*

Data Plot and Equation

Caution – Small Sample Size



Supermarket (850)

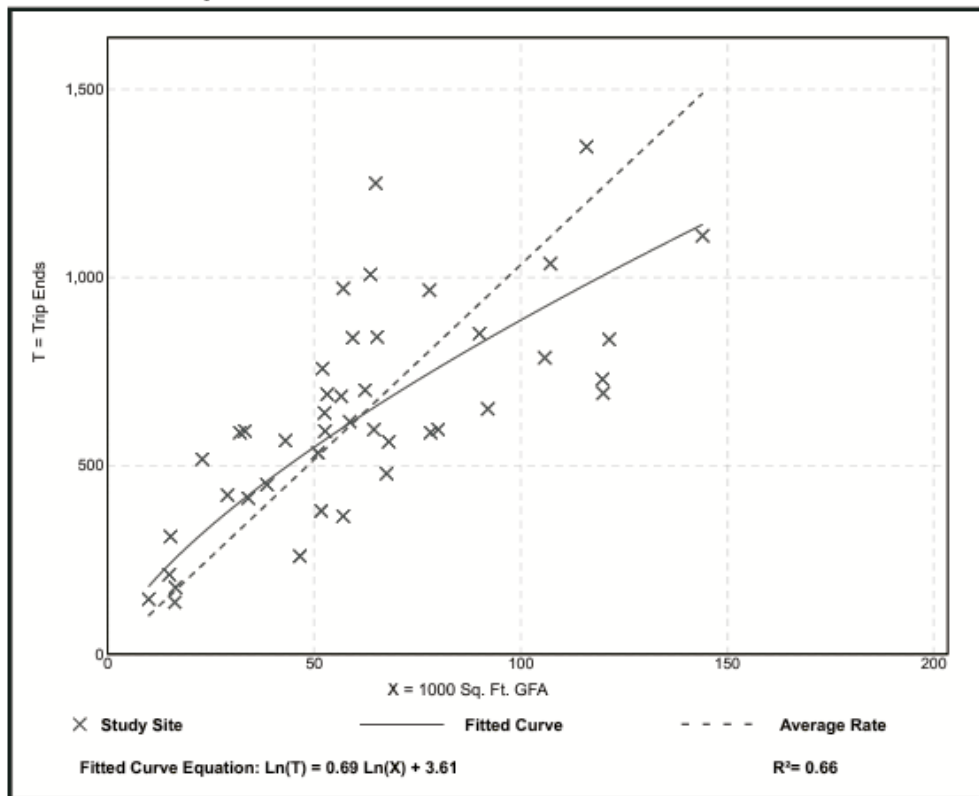
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Saturday, Peak Hour of Generator

Setting/Location: General Urban/Suburban
 Number of Studies: 43
 1000 Sq. Ft. GFA: 62
 Directional Distribution: 51% entering, 49% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
10.34	5.59 - 22.61	3.80

Data Plot and Equation



Land Use: 850 Supermarket

Description

A supermarket is a free-standing retail store selling a complete assortment of food, food preparation and wrapping materials, and household cleaning items. Supermarkets may also contain the following products and services: ATMs, automobile supplies, bakeries, books and magazines, dry cleaning, floral arrangements, greeting cards, limited-service banks, photo centers, pharmacies, and video rental areas. Some facilities may be open 24 hours a day.

Time of Day Distribution for Parking Demand

The following table presents a time-of-day distribution of parking demand on a weekday (nine study sites), a Saturday (11 study sites), and a Sunday (one study site) in a general urban/suburban setting.

Hour Beginning	Percent of Peak Parking Demand		
	Weekday	Saturday	Sunday
12:00–4:00 a.m.	–	–	–
5:00 a.m.	–	–	–
6:00 a.m.	–	–	–
7:00 a.m.	–	–	–
8:00 a.m.	–	–	8
9:00 a.m.	–	–	22
10:00 a.m.	59	70	50
11:00 a.m.	67	96	65
12:00 p.m.	86	99	85
1:00 p.m.	87	99	77
2:00 p.m.	93	97	85
3:00 p.m.	97	96	99
4:00 p.m.	97	100	100
5:00 p.m.	100	89	53
6:00 p.m.	99	–	42
7:00 p.m.	83	–	22
8:00 p.m.	53	–	13
9:00 p.m.	38	–	9
10:00 p.m.	20	–	3
11:00 p.m.	–	–	–

Supermarket (850)

Peak Period Parking Demand vs: 1000 Sq. Ft. GFA

On a: Weekday (Monday - Thursday)

Setting/Location: General Urban/Suburban

Peak Period of Parking Demand: 12:00 - 6:00 p.m.

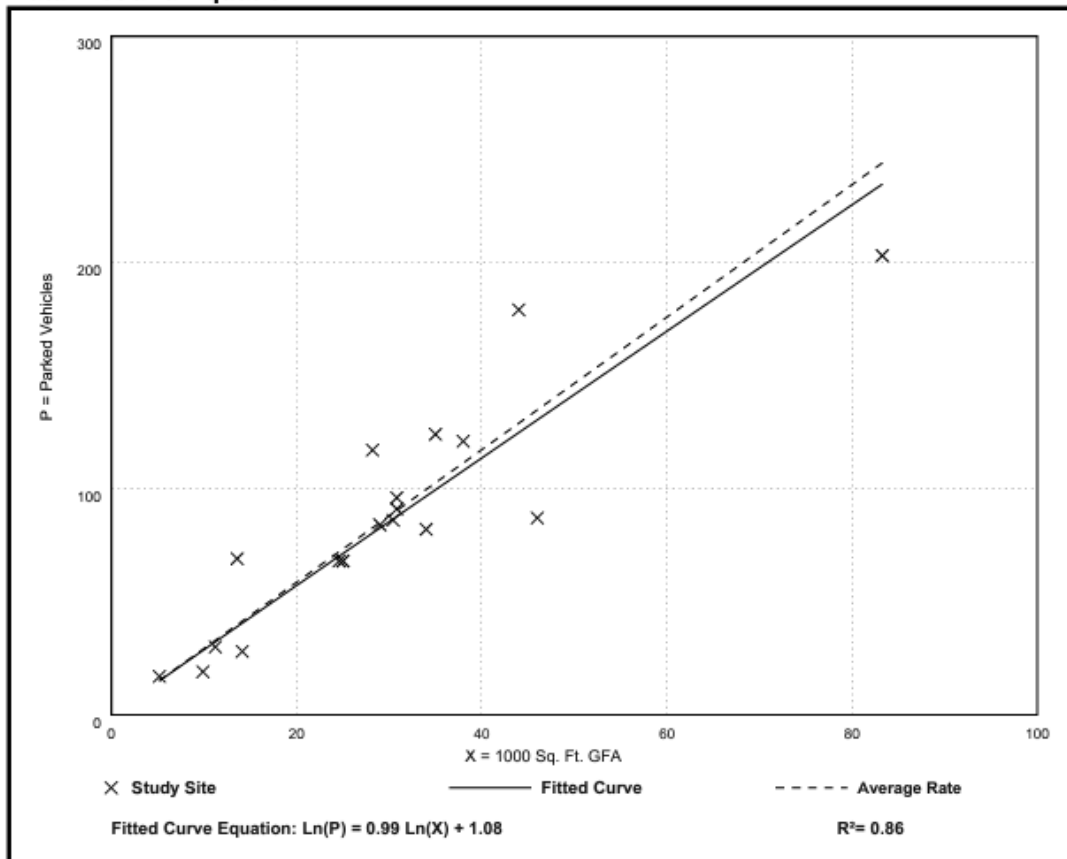
Number of Studies: 19

Avg. 1000 Sq. Ft. GFA: 29

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
2.93	1.89 - 5.08	2.70 / 4.07	***	0.73 (25%)

Data Plot and Equation



Supermarket (850)

Peak Period Parking Demand vs: 1000 Sq. Ft. GFA

On a: Friday

Setting/Location: General Urban/Suburban

Peak Period of Parking Demand: 1:00 - 5:00 p.m.

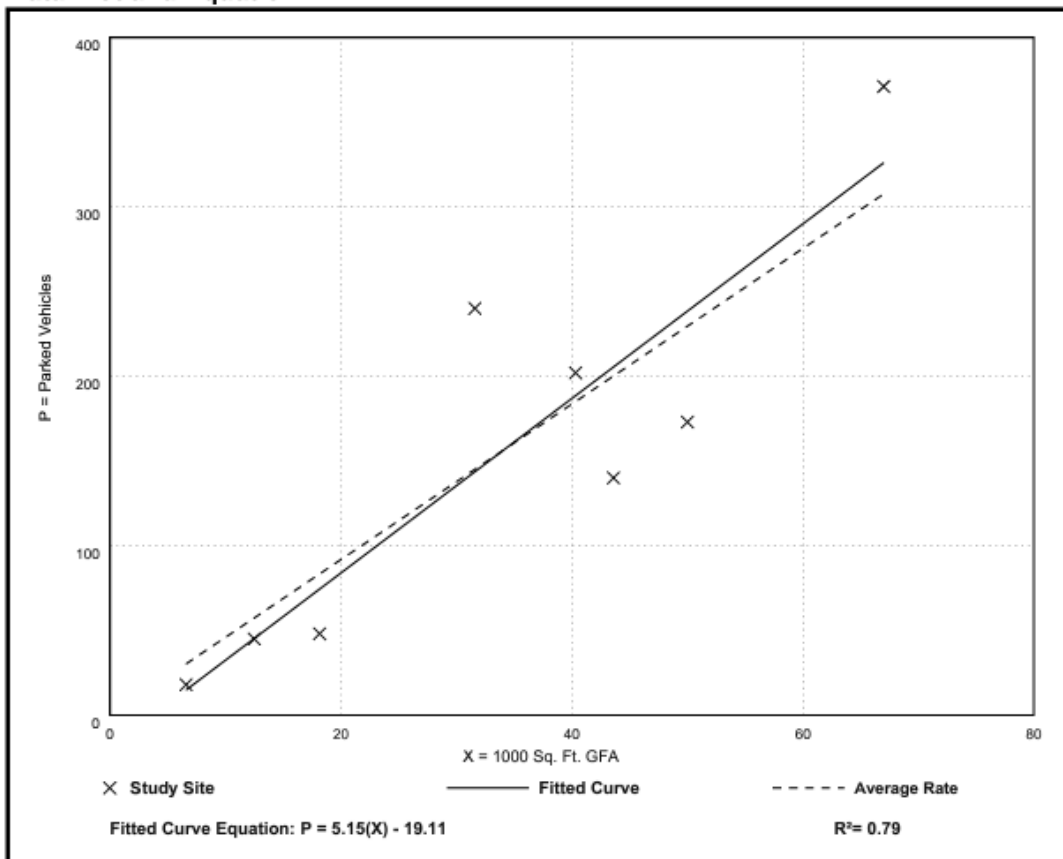
Number of Studies: 8

Avg. 1000 Sq. Ft. GFA: 34

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
4.59	2.64 - 7.59	3.20 / 6.87	***	1.60 (35%)

Data Plot and Equation



Supermarket (850)

Peak Period Parking Demand vs: 1000 Sq. Ft. GFA

On a: Saturday

Setting/Location: General Urban/Suburban

Peak Period of Parking Demand: 11:00 a.m. - 5:00 p.m.

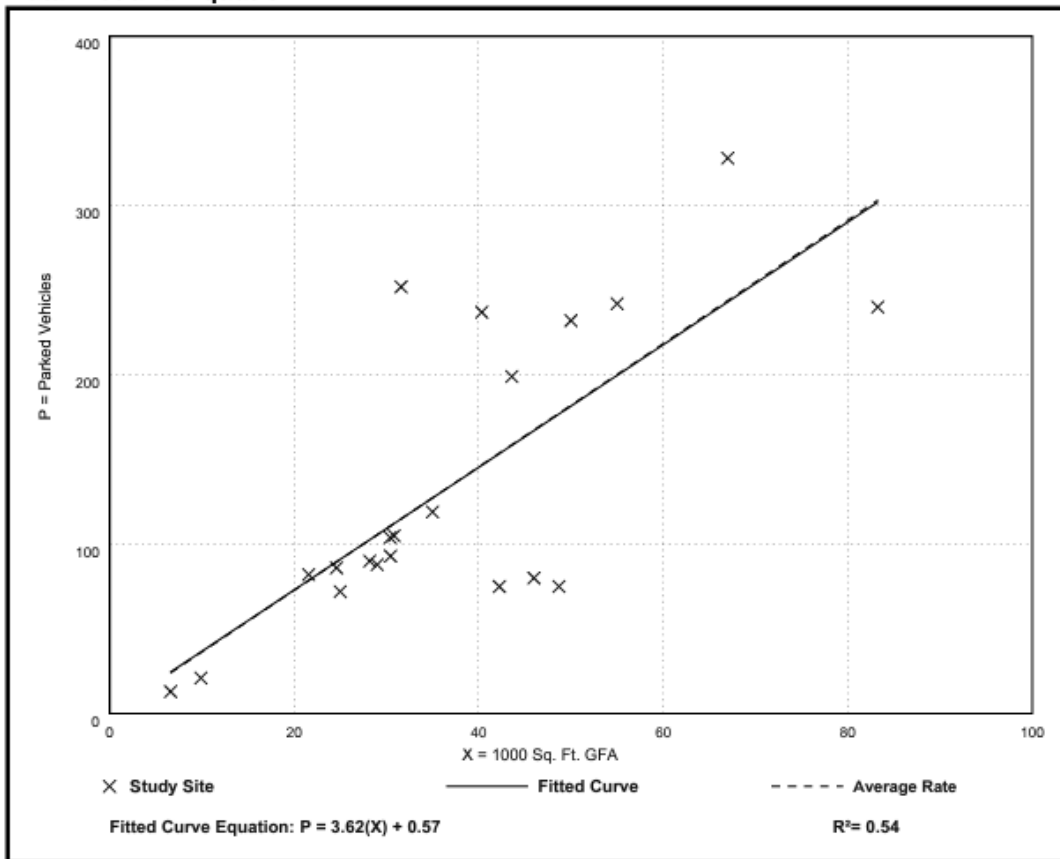
Number of Studies: 21

Avg. 1000 Sq. Ft. GFA: 37

Peak Period Parking Demand per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
3.64	1.54 - 7.97	2.92 / 4.82	2.99 - 4.29	1.51 (41%)

Data Plot and Equation



Level of Service Table

LEVEL OF SERVICE CRITERIA

























Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤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
Unsignalized Intersections		
Level of Service	Average Total Delay (SEC/VEH)	
A	0 - 10	
B	> 10 - 15	
C	> 15 - 25	
D	> 25 - 35	
E	> 35 - 50	
F	> 50	

Source: *Highway Capacity Manual*, 2010.

Capacity Analysis Summary Sheets

Lanes, Volumes, Timings
1: Oak Park Avenue & Madison Street

12/09/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	69	540	49	55	549	100	79	443	51	85	397	91
Future Volume (vph)	69	540	49	55	549	100	79	443	51	85	397	91
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		50	70		100	95		125	100		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	50			170			75			70		
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			0.97			0.96	0.98	0.99		0.98	0.99	
Frt			0.850			0.850		0.985			0.972	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1636	1594	1449	1620	1603	1463	1636	2951	0	1685	2966	0
Flt Permitted	0.251			0.287			0.311			0.303		
Satd. Flow (perm)	432	1594	1400	489	1603	1400	527	2951	0	529	2966	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		463			334			361			190	
Travel Time (s)		12.6			9.1			9.8			5.2	
Confl. Peds. (#/hr)	11		13	13		11	14		18	18		14
Confl. Bikes (#/hr)			3			22						
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 (%)	3%	4%	4%	4%	3%	3%	3%	5%	6%	0%	3%	1%
Bus Blockages (#/hr)	0	2	0	0	3	0	0	4	0	0	4	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	72	563	51	57	572	104	82	514	0	89	509	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	27.0	27.0	9.5	27.0	27.0	9.5	33.0		9.5	25.0	
Total Split (s)	13.0	43.0	43.0	13.0	43.0	43.0	13.0	41.0		13.0	41.0	
Total Split (%)	11.8%	39.1%	39.1%	11.8%	39.1%	39.1%	11.8%	37.3%		11.8%	37.3%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	3.0	6.0		3.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Min	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	63.2	53.5	53.5	61.7	51.4	51.4	36.3	25.9		36.6	26.0	
Actuated g/C Ratio	0.57	0.49	0.49	0.56	0.47	0.47	0.33	0.24		0.33	0.24	

Lanes, Volumes, Timings
 1: Oak Park Avenue & Madison Street

12/09/2020

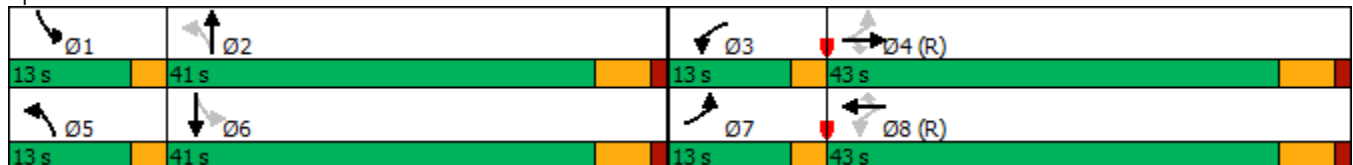


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.22	0.73	0.07	0.16	0.76	0.16	0.31	0.74		0.33	0.73	
Control Delay	13.7	33.1	20.7	6.9	29.5	13.9	24.7	45.3		25.0	44.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	13.7	33.1	20.7	6.9	29.5	13.9	24.7	45.3		25.0	44.6	
LOS	B	C	C	A	C	B	C	D		C	D	
Approach Delay		30.2			25.5			42.5			41.7	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	22	331	20	12	359	45	37	176		41	174	
Queue Length 95th (ft)	50	#616	51	m23	#646	m75	64	219		68	216	
Internal Link Dist (ft)		383			254			281			110	
Turn Bay Length (ft)	150		50	70		100	95			100		
Base Capacity (vph)	363	775	681	387	749	654	277	938		283	943	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.20	0.73	0.07	0.15	0.76	0.16	0.30	0.55		0.31	0.54	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 63 (57%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 34.3 Intersection LOS: C
 Intersection Capacity Utilization 70.5% 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.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Oak Park Avenue & Madison Street



Lanes, Volumes, Timings

2: Oak Park Avenue & Washington Boulevard

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	430	48	75	423	32	84	476	33	41	474	124
Future Volume (vph)	31	430	48	75	423	32	84	476	33	41	474	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		0	25		0	125		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	25			25			100			80		
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		0.99	1.00		0.99	1.00		0.98	0.99	
Frt		0.985			0.989			0.990			0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1645	0	1787	1660	0	1787	3191	0	1770	3184	0
Flt Permitted	0.258			0.230			0.316			0.409		
Satd. Flow (perm)	487	1645	0	430	1660	0	586	3191	0	749	3184	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		669			438			470			394	
Travel Time (s)		15.2			10.0			12.8			10.7	
Confl. Peds. (#/hr)	17		16	16		17	18		19	19		18
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	6%	1%	1%	2%	1%	5%	3%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	526	0	82	500	0	92	559	0	45	657	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	29.0	29.0		29.0	29.0		6.5	27.0		6.5	26.0	
Total Split (s)	38.0	38.0		38.0	38.0		8.0	44.0		8.0	44.0	
Total Split (%)	42.2%	42.2%		42.2%	42.2%		8.9%	48.9%		8.9%	48.9%	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		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)	6.0	6.0		6.0	6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	33.8	33.8		33.8	33.8		44.6	39.4		43.7	37.3	
Actuated g/C Ratio	0.38	0.38		0.38	0.38		0.50	0.44		0.49	0.41	

Lanes, Volumes, Timings

2: Oak Park Avenue & Washington Boulevard

12/09/2020

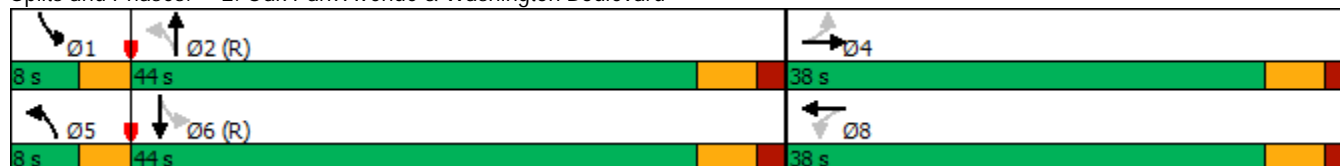


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.19	0.85		0.51	0.80		0.26	0.40		0.11	0.50	
Control Delay	22.4	41.4		35.4	37.1		13.0	19.1		11.5	21.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	22.4	41.4		35.4	37.1		13.0	19.1		11.5	21.6	
LOS	C	D		D	D		B	B		B	C	
Approach Delay		40.2			36.9			18.3			21.0	
Approach LOS		D			D			B			C	
Queue Length 50th (ft)	12	250		33	231		28	127		13	155	
Queue Length 95th (ft)	38	#474		#98	#436		47	157		27	189	
Internal Link Dist (ft)		589			358			390			314	
Turn Bay Length (ft)	25			25			125			100		
Base Capacity (vph)	184	623		162	629		360	1447		420	1413	
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	0.18	0.84		0.51	0.79		0.26	0.39		0.11	0.46	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 41 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 28.3 Intersection LOS: C
 Intersection Capacity Utilization 72.8% 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: Oak Park Avenue & Washington Boulevard



Lanes, Volumes, Timings 3: East Avenue & Madison Street

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	149	457	33	34	532	50	73	322	37	66	149	66
Future Volume (vph)	149	457	33	34	532	50	73	322	37	66	149	66
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	12	10	12	12	12	15	8	12	15	8
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		30	105		105	25		0	25		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	80			130			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			0.94	0.99		0.53	0.96	0.99		0.95	0.98	
Frt			0.850			0.850		0.984			0.954	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1652	1724	1524	1685	1700	1495	1787	1703	0	1770	1707	0
Flt Permitted	0.253			0.394			0.483			0.232		
Satd. Flow (perm)	440	1724	1439	693	1700	793	872	1703	0	411	1707	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			64			64		6				21
Link Speed (mph)		25			25			25				25
Link Distance (ft)		445			553			373				182
Travel Time (s)		12.1			15.1			10.2				5.0
Confl. Peds. (#/hr)	150		11	11		150	33		61	61		33
Confl. Bikes (#/hr)			3			1						
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	3%	6%	0%	4%	8%	1%	7%	3%	2%	1%	4%
Bus Blockages (#/hr)	0	2	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	167	513	37	38	598	56	82	404	0	74	241	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases	2		2	6		6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	9.5	24.0	24.0	9.5	24.0	24.0	35.0	35.0		35.0	35.0	
Total Split (s)	13.0	56.0	56.0	13.0	56.0	56.0	41.0	41.0		41.0	41.0	
Total Split (%)	11.8%	50.9%	50.9%	11.8%	50.9%	50.9%	37.3%	37.3%		37.3%	37.3%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	69.4	61.2	61.2	64.1	55.1	55.1	30.5	30.5		30.5	30.5	
Actuated g/C Ratio	0.63	0.56	0.56	0.58	0.50	0.50	0.28	0.28		0.28	0.28	

Lanes, Volumes, Timings
 3: East Avenue & Madison Street

12/09/2020

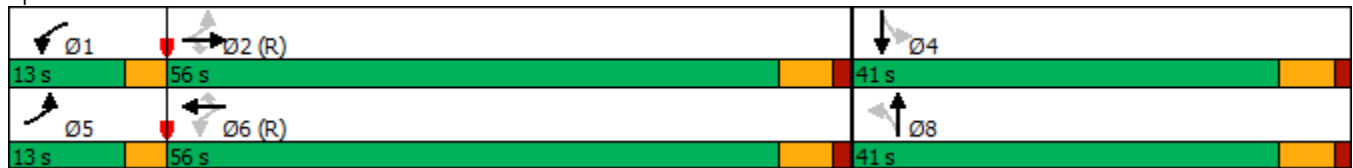


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.44	0.54	0.04	0.08	0.70	0.13	0.34	0.85		0.65	0.49	
Control Delay	8.9	11.0	0.2	9.4	28.2	4.4	34.5	53.7		61.5	33.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	8.9	11.0	0.2	9.4	28.2	4.4	34.5	53.7		61.5	33.1	
LOS	A	B	A	A	C	A	C	D		E	C	
Approach Delay		10.0			25.3			50.5			39.7	
Approach LOS		A			C			D			D	
Queue Length 50th (ft)	19	181	1	10	330	0	45	261		45	127	
Queue Length 95th (ft)	m30	226	m1	24	488	19	86	362		#107	193	
Internal Link Dist (ft)		365			473			293			102	
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	383	958	828	508	851	429	277	545		130	557	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.44	0.54	0.04	0.07	0.70	0.13	0.30	0.74		0.57	0.43	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 100 (91%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 27.9 Intersection LOS: C
 Intersection Capacity Utilization 85.1% ICU Level of Service E
 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: 3: East Avenue & Madison Street



Lanes, Volumes, Timings

23: East Avenue & Washington Boulevard

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	26	377	140	52	332	13	100	200	107	13	237	29
Future Volume (vph)	26	377	140	52	332	13	100	200	107	13	237	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	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		0.99			1.00			0.94			0.99	
Frt		0.965			0.996			0.964			0.986	
Flt Protected		0.998			0.993			0.988			0.998	
Satd. Flow (prot)	0	1546	0	0	1535	0	0	1417	0	0	1598	0
Flt Permitted		0.960			0.828			0.730			0.968	
Satd. Flow (perm)	0	1487	0	0	1279	0	0	1042	0	0	1545	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		25			2			21			7	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		464			588			464			278	
Travel Time (s)		10.5			13.4			12.7			7.6	
Confl. Peds. (#/hr)	13		18	18		13	21		92	92		21
Confl. Bikes (#/hr)			1						29			1
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	1%	0%	0%	1%	0%	1%	0%	5%	0%	1%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		7			15			11			6	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	679	0	0	496	0	0	509	0	0	348	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		15.0	15.0		15.0	15.0	
Minimum Split (s)	31.0	31.0		31.0	31.0		33.0	33.0		33.0	33.0	
Total Split (s)	55.0	55.0		55.0	55.0		45.0	45.0		45.0	45.0	
Total Split (%)	55.0%	55.0%		55.0%	55.0%		45.0%	45.0%		45.0%	45.0%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		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-Max	C-Max		C-Max	C-Max		None	None		None	None	
Act Effect Green (s)		49.0			49.0			39.0			39.0	
Actuated g/C Ratio		0.49			0.49			0.39			0.39	

Lanes, Volumes, Timings
 23: East Avenue & Washington Boulevard

12/09/2020

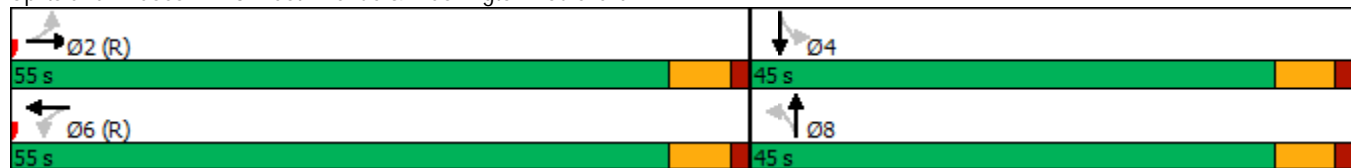


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.92			0.79			1.21				0.57
Control Delay		42.2			32.3			145.6				28.1
Queue Delay		0.0			0.0			0.0				0.0
Total Delay		42.2			32.3			145.6				28.1
LOS		D			C			F				C
Approach Delay		42.2			32.3			145.6				28.1
Approach LOS		D			C			F				C
Queue Length 50th (ft)		374			252			~393				168
Queue Length 95th (ft)		#465			323			#498				221
Internal Link Dist (ft)		384			508			384				198
Turn Bay Length (ft)												
Base Capacity (vph)		741			627			419				606
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		0.92			0.79			1.21				0.57

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 58 (58%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.21
 Intersection Signal Delay: 63.2
 Intersection LOS: E
 Intersection Capacity Utilization 94.9%
 ICU Level of Service F
 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.

Splits and Phases: 23: East Avenue & Washington Boulevard



HCM 6th TWSC
 4: Euclid Avenue & Washington Boulevard

12/09/2020

Intersection												
Int Delay, s/veh	4.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	22	476	6	14	454	13	8	53	10	1	9	68
Future Vol, veh/h	22	476	6	14	454	13	8	53	10	1	9	68
Conflicting Peds, #/hr	19	0	8	8	0	19	4	0	10	10	0	4
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	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	4	1	0	0	2	0	0	2	10	0	0	0
Mvmt Flow	26	567	7	17	540	15	10	63	12	1	11	81

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	574	0	0	582	0	0	1263	1239	589	1271	1235	571
Stage 1	-	-	-	-	-	-	631	631	-	601	601	-
Stage 2	-	-	-	-	-	-	632	608	-	670	634	-
Critical Hdwy	4.14	-	-	4.1	-	-	7.1	6.52	6.3	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.2	-	-	3.5	4.018	3.39	3.5	4	3.3
Pot Cap-1 Maneuver	989	-	-	1002	-	-	148	175	494	146	178	524
Stage 1	-	-	-	-	-	-	472	474	-	491	493	-
Stage 2	-	-	-	-	-	-	472	486	-	450	476	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	971	-	-	994	-	-	111	160	486	92	163	513
Mov Cap-2 Maneuver	-	-	-	-	-	-	111	160	-	92	163	-
Stage 1	-	-	-	-	-	-	450	452	-	464	472	-
Stage 2	-	-	-	-	-	-	377	465	-	360	454	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.3			46.8			17		
HCM LOS							E			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	167	971	-	-	994	-	-	393
HCM Lane V/C Ratio	0.506	0.027	-	-	0.017	-	-	0.236
HCM Control Delay (s)	46.8	8.8	0	-	8.7	0	-	17
HCM Lane LOS	E	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	2.5	0.1	-	-	0.1	-	-	0.9

HCM 6th TWSC
5: Wesley Avenue & Washington Boulevard

12/09/2020

Intersection												
Int Delay, s/veh	5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	464	9	17	452	2	13	44	7	4	31	16
Future Vol, veh/h	14	464	9	17	452	2	13	44	7	4	31	16
Conflicting Peds, #/hr	14	0	1	1	0	14	4	0	0	0	0	4
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	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	1	22	0	1	0	0	2	14	25	0	0
Mvmt Flow	18	587	11	22	572	3	16	56	9	5	39	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	589	0	0	599	0	0	1281	1263	594	1293	1267	592
Stage 1	-	-	-	-	-	-	630	630	-	632	632	-
Stage 2	-	-	-	-	-	-	651	633	-	661	635	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.52	6.34	7.35	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.52	-	6.35	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.52	-	6.35	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.018	3.426	3.725	4	3.3
Pot Cap-1 Maneuver	996	-	-	988	-	-	144	170	483	125	170	510
Stage 1	-	-	-	-	-	-	473	475	-	432	477	-
Stage 2	-	-	-	-	-	-	461	473	-	416	476	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	983	-	-	987	-	-	106	158	483	84	158	501
Mov Cap-2 Maneuver	-	-	-	-	-	-	106	158	-	84	158	-
Stage 1	-	-	-	-	-	-	460	462	-	415	455	-
Stage 2	-	-	-	-	-	-	389	451	-	349	463	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.3			51.8			34.5		
HCM LOS							F			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	154	983	-	-	987	-	-	185
HCM Lane V/C Ratio	0.526	0.018	-	-	0.022	-	-	0.349
HCM Control Delay (s)	51.8	8.7	0	-	8.7	0	-	34.5
HCM Lane LOS	F	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	2.6	0.1	-	-	0.1	-	-	1.5

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	673	3	13	697	7	52
Future Vol, veh/h	673	3	13	697	7	52
Conflicting Peds, #/hr	0	5	5	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	716	3	14	741	7	55

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	724	0	1492
Stage 1	-	-	-	-	723
Stage 2	-	-	-	-	769
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	-	-	888	-	137
Stage 1	-	-	-	-	484
Stage 2	-	-	-	-	461
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	884	-	134
Mov Cap-2 Maneuver	-	-	-	-	274
Stage 1	-	-	-	-	482
Stage 2	-	-	-	-	454

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	15.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	400	-	-	884	-
HCM Lane V/C Ratio	0.157	-	-	0.016	-
HCM Control Delay (s)	15.7	-	-	9.1	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.6	-	-	0	-

HCM 6th TWSC
7: Madison Street & Euclid Avenue

12/09/2020

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	55	670	677	15	3	33
Future Vol, veh/h	55	670	677	15	3	33
Conflicting Peds, #/hr	5	0	0	5	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	25	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	3	3	0	33	0
Mvmt Flow	59	713	720	16	3	35

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	741	0	-	0	1565 733
Stage 1	-	-	-	-	733 -
Stage 2	-	-	-	-	832 -
Critical Hdwy	4.1	-	-	-	6.73 6.2
Critical Hdwy Stg 1	-	-	-	-	5.73 -
Critical Hdwy Stg 2	-	-	-	-	5.73 -
Follow-up Hdwy	2.2	-	-	-	3.797 3.3
Pot Cap-1 Maneuver	875	-	-	-	104 424
Stage 1	-	-	-	-	424 -
Stage 2	-	-	-	-	379 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	871	-	-	-	96 422
Mov Cap-2 Maneuver	-	-	-	-	219 -
Stage 1	-	-	-	-	393 -
Stage 2	-	-	-	-	377 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	15.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	871	-	-	-	392
HCM Lane V/C Ratio	0.067	-	-	-	0.098
HCM Control Delay (s)	9.4	-	-	-	15.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

HCM 6th TWSC
8: Wesley Avenue & Madison Street

12/09/2020

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	665	8	23	684	8	12
Future Vol, veh/h	665	8	23	684	8	12
Conflicting Peds, #/hr	0	5	5	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	707	9	24	728	9	13

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	721	0	1493
Stage 1	-	-	-	-	717
Stage 2	-	-	-	-	776
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	-	-	890	-	137
Stage 1	-	-	-	-	487
Stage 2	-	-	-	-	457
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	886	-	133
Mov Cap-2 Maneuver	-	-	-	-	272
Stage 1	-	-	-	-	485
Stage 2	-	-	-	-	445

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	16
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	349	-	-	886	-
HCM Lane V/C Ratio	0.061	-	-	0.028	-
HCM Control Delay (s)	16	-	-	9.2	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

HCM 6th TWSC
 9: Madison Street & Wesley Avenue

12/09/2020

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	46	631	653	18	8	54
Future Vol, veh/h	46	631	653	18	8	54
Conflicting Peds, #/hr	5	0	0	5	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	49	671	695	19	9	57

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	719	0	0 1480 710
Stage 1	-	-	- 710 -
Stage 2	-	-	- 770 -
Critical Hdwy	4.1	-	- 6.4 6.2
Critical Hdwy Stg 1	-	-	- 5.4 -
Critical Hdwy Stg 2	-	-	- 5.4 -
Follow-up Hdwy	2.2	-	- 3.5 3.3
Pot Cap-1 Maneuver	892	-	- 140 437
Stage 1	-	-	- 491 -
Stage 2	-	-	- 460 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	888	-	- 131 435
Mov Cap-2 Maneuver	-	-	- 270 -
Stage 1	-	-	- 462 -
Stage 2	-	-	- 458 -

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	15.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	888	-	-	-	403
HCM Lane V/C Ratio	0.055	-	-	-	0.164
HCM Control Delay (s)	9.3	-	-	-	15.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6

HCM 6th TWSC
10: Oak Park Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	0	2	0	3	25	587	0	26	571	0
Future Vol, veh/h	3	0	0	2	0	3	25	587	0	26	571	0
Conflicting Peds, #/hr	1	0	1	1	0	1	17	0	15	15	0	17
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	5	0	0	3	0
Mvmt Flow	3	0	0	2	0	3	26	618	0	27	601	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1034	1357	319	1041	1357	325	618	0	0	633	0	0
Stage 1	672	672	-	685	685	-	-	-	-	-	-	-
Stage 2	362	685	-	356	672	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	189	150	683	187	150	677	972	-	-	960	-	-
Stage 1	416	458	-	409	451	-	-	-	-	-	-	-
Stage 2	635	451	-	640	458	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	174	135	675	173	135	670	962	-	-	951	-	-
Mov Cap-2 Maneuver	174	135	-	173	135	-	-	-	-	-	-	-
Stage 1	395	433	-	389	428	-	-	-	-	-	-	-
Stage 2	606	428	-	612	433	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	26.1		16.7		0.6		0.6	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	962	-	-	174	312	951	-
HCM Lane V/C Ratio	0.027	-	-	0.018	0.017	0.029	-
HCM Control Delay (s)	8.8	0.2	-	26.1	16.7	8.9	0.2
HCM Lane LOS	A	A	-	D	C	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0.1	-

HCM 6th TWSC
11: Euclid Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	3	6	0	1	2	68	0	1	27	1
Future Vol, veh/h	2	0	3	6	0	1	2	68	0	1	27	1
Conflicting Peds, #/hr	1	0	9	9	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	4	0
Mvmt Flow	3	0	4	8	0	1	3	89	0	1	36	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	136	135	46	146	135	91	37	0	0	90	0	0
Stage 1	39	39	-	96	96	-	-	-	-	-	-	-
Stage 2	97	96	-	50	39	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	840	760	1029	827	760	972	1587	-	-	1518	-	-
Stage 1	981	866	-	916	819	-	-	-	-	-	-	-
Stage 2	914	819	-	968	866	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	836	757	1020	815	757	970	1587	-	-	1517	-	-
Mov Cap-2 Maneuver	836	757	-	815	757	-	-	-	-	-	-	-
Stage 1	979	865	-	913	817	-	-	-	-	-	-	-
Stage 2	910	817	-	955	865	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.9		9.4		0.2		0.3	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1587	-	-	937	834	1517	-	-
HCM Lane V/C Ratio	0.002	-	-	0.007	0.011	0.001	-	-
HCM Control Delay (s)	7.3	0	-	8.9	9.4	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th TWSC
12: Wesley Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	2	6	1	2	2	59	3	2	54	1
Future Vol, veh/h	3	0	2	6	1	2	2	59	3	2	54	1
Conflicting Peds, #/hr	10	0	7	7	0	10	3	0	1	1	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	64	64	64	64	64	64	64	64	64	64	64
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	2	100
Mvmt Flow	5	0	3	9	2	3	3	92	5	3	84	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	207	198	95	202	197	106	89	0	0	98	0	0
Stage 1	94	94	-	102	102	-	-	-	-	-	-	-
Stage 2	113	104	-	100	95	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	755	701	967	761	702	954	1519	-	-	1508	-	-
Stage 1	918	821	-	909	815	-	-	-	-	-	-	-
Stage 2	897	813	-	911	820	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	741	696	959	750	697	944	1516	-	-	1507	-	-
Mov Cap-2 Maneuver	741	696	-	750	697	-	-	-	-	-	-	-
Stage 1	914	818	-	906	813	-	-	-	-	-	-	-
Stage 2	882	811	-	900	817	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.5		9.7		0.2		0.3	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1516	-	-	815	779	1507	-	-
HCM Lane V/C Ratio	0.002	-	-	0.01	0.018	0.002	-	-
HCM Control Delay (s)	7.4	0	-	9.5	9.7	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

HCM 6th TWSC
18: East Avenue & Alley/Fenwick Inbound Drive

12/09/2020

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	2	1	6	0	0	0	0	245	276	174	275	3
Future Vol, veh/h	2	1	6	0	0	0	0	245	276	174	275	3
Conflicting Peds, #/hr	109	0	0	0	0	109	0	0	90	90	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	1	1	0
Mvmt Flow	3	1	8	0	0	0	0	318	358	226	357	4

Major/Minor	Minor2			Major1			Major2					
Conflicting Flow All	1417	1577	359				361	0	0	766	0	0
Stage 1	811	811	-				-	-	-	-	-	-
Stage 2	606	766	-				-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2				4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	5.4	5.5	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-				-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3				2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	153	111	690				1209	-	-	852	-	-
Stage 1	440	396	-				-	-	-	-	-	-
Stage 2	548	415	-				-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	102	0	690				1209	-	-	852	-	-
Mov Cap-2 Maneuver	102	0	-				-	-	-	-	-	-
Stage 1	440	0	-				-	-	-	-	-	-
Stage 2	366	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.3	0	4.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1209	-	-	283	852	-	-
HCM Lane V/C Ratio	-	-	-	0.041	0.265	-	-
HCM Control Delay (s)	0	-	-	18.3	10.7	0	-
HCM Lane LOS	A	-	-	C	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	1.1	-	-

Lanes, Volumes, Timings

1: Oak Park Avenue & Madison Street

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	93	537	69	69	486	90	106	436	56	104	447	97
Future Volume (vph)	93	537	69	69	486	90	106	436	56	104	447	97
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		50	70		100	95		125	100		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	50			170			75			70		
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		0.97			0.96	0.97	0.99		0.99	0.98	
Frt			0.850			0.850		0.983			0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1668	1641	1507	1668	1625	1492	1668	3068	0	1685	3004	0
Flt Permitted	0.294			0.279			0.264			0.311		
Satd. Flow (perm)	513	1641	1457	490	1625	1433	452	3068	0	545	3004	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		463			334			361			100	
Travel Time (s)		12.6			9.1			9.8			2.7	
Confl. Peds. (#/hr)	17		13	13		17	26		14	14		26
Confl. Bikes (#/hr)			2			3			1			1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	1%	2%	1%	1%	1%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	4	0	0	4	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	96	554	71	71	501	93	109	507	0	107	561	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	27.0	27.0	9.5	27.0	27.0	9.5	33.0		9.5	28.0	
Total Split (s)	13.0	49.0	49.0	13.0	49.0	49.0	13.0	35.0		13.0	35.0	
Total Split (%)	11.8%	44.5%	44.5%	11.8%	44.5%	44.5%	11.8%	31.8%		11.8%	31.8%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	3.0	6.0		3.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Min	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	61.0	50.9	50.9	59.3	48.6	48.6	38.2	26.0		38.1	25.9	
Actuated g/C Ratio	0.55	0.46	0.46	0.54	0.44	0.44	0.35	0.24		0.35	0.24	

Lanes, Volumes, Timings
 1: Oak Park Avenue & Madison Street

12/09/2020

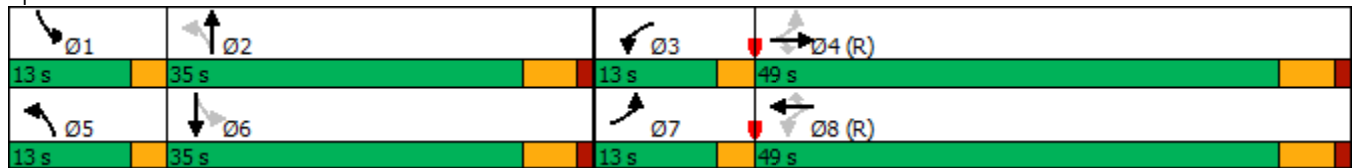


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.26	0.73	0.11	0.21	0.70	0.15	0.42	0.70		0.38	0.79	
Control Delay	13.7	33.4	20.4	11.0	32.8	19.9	27.2	43.8		25.9	48.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	13.7	33.4	20.4	11.0	32.8	19.9	27.2	43.8		25.9	48.3	
LOS	B	C	C	B	C	B	C	D		C	D	
Approach Delay		29.5			28.6			40.9			44.7	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	31	330	29	28	312	46	49	170		48	193	
Queue Length 95th (ft)	59	#555	63	m44	#466	m90	86	224		85	253	
Internal Link Dist (ft)		383			254			281			20	
Turn Bay Length (ft)	150		50	70		100	95			100		
Base Capacity (vph)	393	759	674	380	718	633	270	808		296	791	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.24	0.73	0.11	0.19	0.70	0.15	0.40	0.63		0.36	0.71	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 16 (15%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.79
 Intersection Signal Delay: 35.7
 Intersection LOS: D
 Intersection Capacity Utilization 70.3%
 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.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Oak Park Avenue & Madison Street



Lanes, Volumes, Timings

2: Oak Park Avenue & Washington Boulevard

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	472	53	61	458	33	69	460	47	45	562	119
Future Volume (vph)	32	472	53	61	458	33	69	460	47	45	562	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		0	25		0	125		125	100		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			100			80		
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	1.00		0.98	1.00		0.99	0.98	
Frt		0.985			0.990			0.986			0.974	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1655	0	1805	1665	0	1805	3294	0	1805	3221	0
Flt Permitted	0.244			0.205			0.288			0.420		
Satd. Flow (perm)	461	1655	0	388	1665	0	534	3294	0	787	3221	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		669			438			470			341	
Travel Time (s)		15.2			10.0			12.8			9.3	
Confl. Peds. (#/hr)	15		15	15		15	36		15	15		36
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	1%	2%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	553	0	64	517	0	73	533	0	47	717	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	29.0	29.0		29.0	29.0		6.5	27.0		6.5	26.0	
Total Split (s)	37.0	37.0		37.0	37.0		8.0	45.0		8.0	45.0	
Total Split (%)	41.1%	41.1%		41.1%	41.1%		8.9%	50.0%		8.9%	50.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		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)	6.0	6.0		6.0	6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	34.1	34.1		34.1	34.1		44.3	39.1		43.6	37.5	
Actuated g/C Ratio	0.38	0.38		0.38	0.38		0.49	0.43		0.48	0.42	

Lanes, Volumes, Timings

2: Oak Park Avenue & Washington Boulevard

12/09/2020

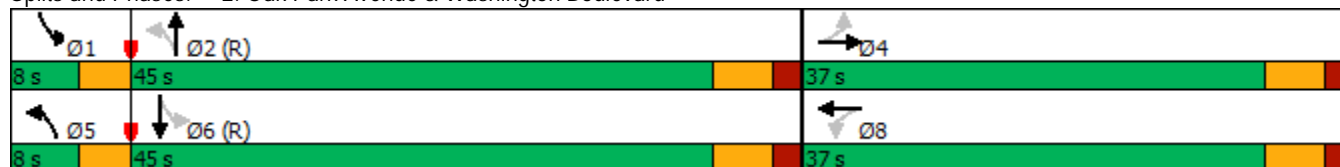


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.20	0.88		0.44	0.82		0.22	0.37		0.11	0.53	
Control Delay	23.8	45.1		29.2	32.6		12.2	18.4		10.8	21.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	23.8	45.1		29.2	32.6		12.2	18.4		10.8	21.6	
LOS	C	D		C	C		B	B		B	C	
Approach Delay		43.9			32.2			17.6			21.0	
Approach LOS		D			C			B			C	
Queue Length 50th (ft)	13	284		15	133		20	113		13	164	
Queue Length 95th (ft)	39	#517		m39	#459		38	145		27	204	
Internal Link Dist (ft)		589			358			390			261	
Turn Bay Length (ft)	25			25			125			100		
Base Capacity (vph)	174	627		147	630		329	1458		434	1425	
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	0.20	0.88		0.44	0.82		0.22	0.37		0.11	0.50	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 34 (38%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 28.0
 Intersection LOS: C
 Intersection Capacity Utilization 76.9%
 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: 2: Oak Park Avenue & Washington Boulevard



Lanes, Volumes, Timings 3: East Avenue & Madison Street

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	73	527	58	47	507	54	49	200	45	42	285	86
Future Volume (vph)	73	527	58	47	507	54	49	200	45	42	285	86
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	12	10	12	12	12	15	8	12	15	8
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		30	105		105	25		0	25		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	80			130			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	0.98		0.95	0.99		0.89	0.99	0.99		0.98	0.99	
Frt			0.850			0.850		0.972			0.965	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1668	1758	1615	1685	1741	1615	1805	1773	0	1770	1764	0
Flt Permitted	0.364			0.358			0.218			0.440		
Satd. Flow (perm)	624	1758	1528	630	1741	1435	409	1773	0	804	1764	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			64			64		10			14	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		442			418			343			175	
Travel Time (s)		12.1			11.4			9.4			4.8	
Confl. Peds. (#/hr)	30		11	11		30	14		16	16		14
Confl. Bikes (#/hr)			1			2						
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%	1%	0%	0%	2%	0%	0%	2%	0%	2%	1%	2%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	0	0	0	0	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	74	538	59	48	517	55	50	250	0	43	379	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	9.5	24.0	24.0	9.5	24.0	24.0	35.0	35.0		35.0	35.0	
Total Split (s)	14.0	60.0	60.0	14.0	60.0	60.0	36.0	36.0		36.0	36.0	
Total Split (%)	12.7%	54.5%	54.5%	12.7%	54.5%	54.5%	32.7%	32.7%		32.7%	32.7%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	71.2	62.6	62.6	70.0	62.0	62.0	27.1	27.1		27.1	27.1	
Actuated g/C Ratio	0.65	0.57	0.57	0.64	0.56	0.56	0.25	0.25		0.25	0.25	

Lanes, Volumes, Timings
 3: East Avenue & Madison Street

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.16	0.54	0.07	0.10	0.53	0.07	0.50	0.56		0.22	0.85	
Control Delay	4.2	9.0	0.2	7.7	19.0	3.1	53.0	39.5		34.7	56.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	4.2	9.0	0.2	7.7	19.0	3.1	53.0	39.5		34.7	56.5	
LOS	A	A	A	A	B	A	D	D		C	E	
Approach Delay		7.7			16.7			41.8			54.3	
Approach LOS		A			B			D			D	
Queue Length 50th (ft)	9	93	0	11	234	0	30	145		24	241	
Queue Length 95th (ft)	m13	143	m1	25	357	17	73	224		55	#376	
Internal Link Dist (ft)		362			338			263			95	
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	514	1000	897	517	981	836	111	490		219	491	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.14	0.54	0.07	0.09	0.53	0.07	0.45	0.51		0.20	0.77	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 54 (49%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 25.3 Intersection LOS: C
 Intersection Capacity Utilization 78.3% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: East Avenue & Madison Street



HCM 6th TWSC

4: Euclid Avenue & Washington Boulevard

12/09/2020

Intersection												
Int Delay, s/veh	2.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	21	530	13	18	484	18	4	37	8	1	15	64
Future Vol, veh/h	21	530	13	18	484	18	4	37	8	1	15	64
Conflicting Peds, #/hr	5	0	15	15	0	5	10	0	4	4	0	10
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	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	0	0	1	0	0	4	0	0	13	0
Mvmt Flow	22	558	14	19	509	19	4	39	8	1	16	67

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	533	0	0	587	0	0	1232	1195	584	1199	1193	534
Stage 1	-	-	-	-	-	-	624	624	-	562	562	-
Stage 2	-	-	-	-	-	-	608	571	-	637	631	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.54	6.2	7.1	6.63	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.54	-	6.1	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.54	-	6.1	5.63	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.036	3.3	3.5	4.117	3.3
Pot Cap-1 Maneuver	1045	-	-	998	-	-	155	185	515	164	178	550
Stage 1	-	-	-	-	-	-	477	475	-	515	492	-
Stage 2	-	-	-	-	-	-	486	502	-	469	458	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1040	-	-	984	-	-	117	171	506	126	165	542
Mov Cap-2 Maneuver	-	-	-	-	-	-	117	171	-	126	165	-
Stage 1	-	-	-	-	-	-	456	454	-	496	476	-
Stage 2	-	-	-	-	-	-	397	486	-	407	437	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.3			32			17.6		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	184	1040	-	-	984	-	-	369
HCM Lane V/C Ratio	0.28	0.021	-	-	0.019	-	-	0.228
HCM Control Delay (s)	32	8.5	0	-	8.7	0	-	17.6
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0.1	-	-	0.9

HCM 6th TWSC
5: Wesley Avenue & Washington Boulevard

12/09/2020

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	509	13	16	489	10	12	30	20	2	22	19
Future Vol, veh/h	17	509	13	16	489	10	12	30	20	2	22	19
Conflicting Peds, #/hr	13	0	0	0	0	13	6	0	1	1	0	6
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	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	18	536	14	17	515	11	13	32	21	2	23	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	539	0	0	550	0	0	1161	1152	544	1175	1154	540
Stage 1	-	-	-	-	-	-	579	579	-	568	568	-
Stage 2	-	-	-	-	-	-	582	573	-	607	586	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1040	-	-	1030	-	-	174	199	543	170	199	546
Stage 1	-	-	-	-	-	-	504	504	-	511	510	-
Stage 2	-	-	-	-	-	-	502	507	-	487	500	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1027	-	-	1030	-	-	145	187	542	135	187	536
Mov Cap-2 Maneuver	-	-	-	-	-	-	145	187	-	135	187	-
Stage 1	-	-	-	-	-	-	491	491	-	492	492	-
Stage 2	-	-	-	-	-	-	447	489	-	427	488	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.3			28			22.1		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	221	1027	-	-	1030	-	-	256
HCM Lane V/C Ratio	0.295	0.017	-	-	0.016	-	-	0.177
HCM Control Delay (s)	28	8.6	0	-	8.6	0	-	22.1
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0.1	-	-	0.6

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	681	16	12	645	0	36
Future Vol, veh/h	681	16	12	645	0	36
Conflicting Peds, #/hr	0	11	11	0	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	0	0
Mvmt Flow	740	17	13	701	0	39

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	768	0	1488
Stage 1	-	-	-	-	760
Stage 2	-	-	-	-	728
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	-	-	855	-	138
Stage 1	-	-	-	-	465
Stage 2	-	-	-	-	482
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	846	-	134
Mov Cap-2 Maneuver	-	-	-	-	274
Stage 1	-	-	-	-	460
Stage 2	-	-	-	-	474

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	14.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	403	-	-	846	-
HCM Lane V/C Ratio	0.097	-	-	0.015	-
HCM Control Delay (s)	14.9	-	-	9.3	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0	-

HCM 6th TWSC
7: Madison Street & Euclid Avenue

12/09/2020

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	30	687	619	18	7	38
Future Vol, veh/h	30	687	619	18	7	38
Conflicting Peds, #/hr	5	0	0	5	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	25	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	2	0	14	2
Mvmt Flow	33	747	673	20	8	41

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	698	0	-	0	1502 688
Stage 1	-	-	-	-	688 -
Stage 2	-	-	-	-	814 -
Critical Hdwy	4.1	-	-	-	6.54 6.22
Critical Hdwy Stg 1	-	-	-	-	5.54 -
Critical Hdwy Stg 2	-	-	-	-	5.54 -
Follow-up Hdwy	2.2	-	-	-	3.626 3.318
Pot Cap-1 Maneuver	908	-	-	-	126 446
Stage 1	-	-	-	-	477 -
Stage 2	-	-	-	-	416 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	904	-	-	-	120 444
Mov Cap-2 Maneuver	-	-	-	-	253 -
Stage 1	-	-	-	-	457 -
Stage 2	-	-	-	-	414 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	15.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	904	-	-	-	397
HCM Lane V/C Ratio	0.036	-	-	-	0.123
HCM Control Delay (s)	9.1	-	-	-	15.3
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

HCM 6th TWSC
8: Wesley Avenue & Madison Street

12/09/2020

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	682	12	31	633	4	12
Future Vol, veh/h	682	12	31	633	4	12
Conflicting Peds, #/hr	0	11	11	0	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	0	2	0	0	0
Mvmt Flow	741	13	34	688	4	13

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	765	0	1516
Stage 1	-	-	-	-	759
Stage 2	-	-	-	-	757
Critical Hdwy	-	-	4.12	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.218	-	3.5
Pot Cap-1 Maneuver	-	-	848	-	133
Stage 1	-	-	-	-	466
Stage 2	-	-	-	-	467
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	839	-	126
Mov Cap-2 Maneuver	-	-	-	-	265
Stage 1	-	-	-	-	461
Stage 2	-	-	-	-	447

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	15.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	357	-	-	839	-
HCM Lane V/C Ratio	0.049	-	-	0.04	-
HCM Control Delay (s)	15.6	-	-	9.5	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

HCM 6th TWSC
 9: Madison Street & Wesley Avenue

12/09/2020

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	650	619	23	8	45
Future Vol, veh/h	44	650	619	23	8	45
Conflicting Peds, #/hr	5	0	0	5	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	48	707	673	25	9	49

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	703	0	-	0	1495 691
Stage 1	-	-	-	-	691 -
Stage 2	-	-	-	-	804 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	904	-	-	-	137 448
Stage 1	-	-	-	-	501 -
Stage 2	-	-	-	-	444 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	900	-	-	-	129 446
Mov Cap-2 Maneuver	-	-	-	-	267 -
Stage 1	-	-	-	-	472 -
Stage 2	-	-	-	-	442 -

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	15.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	900	-	-	-	405
HCM Lane V/C Ratio	0.053	-	-	-	0.142
HCM Control Delay (s)	9.2	-	-	-	15.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5

HCM 6th TWSC
10: Oak Park Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	6	1	0	0	43	573	3	0	641	35
Future Vol, veh/h	3	0	6	1	0	0	43	573	3	0	641	35
Conflicting Peds, #/hr	0	0	0	0	0	0	23	0	9	9	0	23
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	3	0	7	1	0	0	48	637	3	0	712	39

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1170	1500	399	1100	1518	329	774	0	0	649	0	0
Stage 1	755	755	-	744	744	-	-	-	-	-	-	-
Stage 2	415	745	-	356	774	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	150	123	606	169	120	673	851	-	-	947	-	-
Stage 1	371	420	-	377	424	-	-	-	-	-	-	-
Stage 2	591	424	-	640	411	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	138	110	597	155	107	669	839	-	-	942	-	-
Mov Cap-2 Maneuver	138	110	-	155	107	-	-	-	-	-	-	-
Stage 1	333	414	-	342	384	-	-	-	-	-	-	-
Stage 2	538	384	-	633	405	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	18.2		28.4		1		0	
HCM LOS	C		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	839	-	-	283	155	942	-
HCM Lane V/C Ratio	0.057	-	-	0.035	0.007	-	-
HCM Control Delay (s)	9.6	0.4	-	18.2	28.4	0	-
HCM Lane LOS	A	A	-	C	D	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0	0	-

HCM 6th TWSC
11: Euclid Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	1	0	1	2	3	45	0	2	44	0
Future Vol, veh/h	2	0	1	0	1	2	3	45	0	2	44	0
Conflicting Peds, #/hr	2	0	2	2	0	2	3	0	1	1	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	5	0
Mvmt Flow	2	0	1	0	1	2	3	47	0	2	46	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	110	107	51	107	107	50	49	0	0	48	0	0
Stage 1	53	53	-	54	54	-	-	-	-	-	-	-
Stage 2	57	54	-	53	53	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	873	787	1023	877	787	1024	1571	-	-	1572	-	-
Stage 1	965	855	-	963	854	-	-	-	-	-	-	-
Stage 2	960	854	-	965	855	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	865	782	1019	872	782	1021	1568	-	-	1571	-	-
Mov Cap-2 Maneuver	865	782	-	872	782	-	-	-	-	-	-	-
Stage 1	961	852	-	960	851	-	-	-	-	-	-	-
Stage 2	953	851	-	961	852	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9		8.9		0.5		0.3	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1568	-	-	911	927	1571	-
HCM Lane V/C Ratio	0.002	-	-	0.003	0.003	0.001	-
HCM Control Delay (s)	7.3	0	-	9	8.9	7.3	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-

HCM 6th TWSC
12: Wesley Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	5	0	2	5	60	2	1	47	3
Future Vol, veh/h	0	0	1	5	0	2	5	60	2	1	47	3
Conflicting Peds, #/hr	3	0	6	6	0	3	5	0	0	0	0	5
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	1	6	0	3	6	77	3	1	60	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	164	161	73	162	162	82	69	0	0	80	0	0
Stage 1	69	69	-	91	91	-	-	-	-	-	-	-
Stage 2	95	92	-	71	71	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	805	735	995	808	734	983	1545	-	-	1531	-	-
Stage 1	946	841	-	921	823	-	-	-	-	-	-	-
Stage 2	917	823	-	944	840	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	795	729	986	799	728	980	1540	-	-	1531	-	-
Mov Cap-2 Maneuver	795	729	-	799	728	-	-	-	-	-	-	-
Stage 1	939	838	-	917	820	-	-	-	-	-	-	-
Stage 2	908	820	-	936	837	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.7		9.3		0.5		0.1	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1540	-	-	986	844	1531	-
HCM Lane V/C Ratio	0.004	-	-	0.001	0.011	0.001	-
HCM Control Delay (s)	7.3	0	-	8.7	9.3	7.4	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-

HCM 6th TWSC
 26: East Avenue & Alley/Fenwick Inbound Drive

12/09/2020

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	1	1	3	0	0	0	1	307	19	15	410	1
Future Vol, veh/h	1	1	3	0	0	0	1	307	19	15	410	1
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	11	11	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	1	1	3	0	0	0	1	341	21	17	456	1

























Major/Minor	Minor2			Major1			Major2					
Conflicting Flow All	848	866	457				457	0	0	373	0	0
Stage 1	491	491	-				-	-	-	-	-	-
Stage 2	357	375	-				-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2				4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-				-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3				2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	334	293	608				1114	-	-	1197	-	-
Stage 1	619	552	-				-	-	-	-	-	-
Stage 2	713	621	-				-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	327	0	608				1114	-	-	1197	-	-
Mov Cap-2 Maneuver	327	0	-				-	-	-	-	-	-
Stage 1	618	0	-				-	-	-	-	-	-
Stage 2	699	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1114	-	-	500	1197	-	-
HCM Lane V/C Ratio	0.001	-	-	0.011	0.014	-	-
HCM Control Delay (s)	8.2	0	-	12.3	8.1	0	-
HCM Lane LOS	A	A	-	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	-	-

Lanes, Volumes, Timings
1: Oak Park Avenue & Madison Street

12/09/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	103	516	57	76	463	107	96	385	45	91	415	106
Future Volume (vph)	103	516	57	76	463	107	96	385	45	91	415	106
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		50	70		100	95		125	100		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	50			170			75			70		
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		0.98	1.00		0.98	0.99	1.00		0.99	0.99	
Frt			0.850			0.850		0.984			0.970	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1668	1654	1507	1668	1654	1507	1685	3083	0	1668	3017	0
Flt Permitted	0.301			0.287			0.317			0.404		
Satd. Flow (perm)	526	1654	1472	502	1654	1470	556	3083	0	703	3017	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		463			334			361			100	
Travel Time (s)		12.6			9.1			9.8			2.7	
Confl. Peds. (#/hr)	10		9	9		10	12		10	10		12
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	1%	1%	0%	0%	1%	0%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	106	532	59	78	477	110	99	443	0	94	537	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	27.0	27.0	9.5	27.0	27.0	9.5	33.0		9.5	28.0	
Total Split (s)	10.0	37.0	37.0	10.0	37.0	37.0	10.0	33.0		10.0	33.0	
Total Split (%)	11.1%	41.1%	41.1%	11.1%	41.1%	41.1%	11.1%	36.7%		11.1%	36.7%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	3.0	6.0		3.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Min	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	48.8	39.5	39.5	47.3	37.3	37.3	30.8	22.2		30.8	22.2	
Actuated g/C Ratio	0.54	0.44	0.44	0.53	0.41	0.41	0.34	0.25		0.34	0.25	

Lanes, Volumes, Timings
 1: Oak Park Avenue & Madison Street

12/09/2020

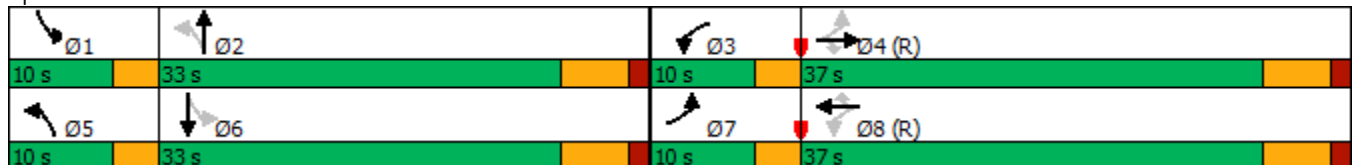


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.28	0.73	0.09	0.22	0.70	0.18	0.36	0.58		0.30	0.72	
Control Delay	13.1	32.4	19.7	7.5	27.6	15.4	20.7	32.5		19.4	36.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	13.1	32.4	19.7	7.5	27.6	15.4	20.7	32.5		19.4	36.6	
LOS	B	C	B	A	C	B	C	C		B	D	
Approach Delay		28.4			23.2			30.4			34.0	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	28	269	21	18	259	47	35	115		33	146	
Queue Length 95th (ft)	60	#490	50	m24	#429	m72	63	153		60	190	
Internal Link Dist (ft)		383			254			281			20	
Turn Bay Length (ft)	150		50	70		100	95			100		
Base Capacity (vph)	383	725	645	361	685	609	278	924		315	905	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.28	0.73	0.09	0.22	0.70	0.18	0.36	0.48		0.30	0.59	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 58 (64%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.73
 Intersection Signal Delay: 28.9 Intersection LOS: C
 Intersection Capacity Utilization 67.3% 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.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Oak Park Avenue & Madison Street



Lanes, Volumes, Timings

2: Oak Park Avenue & Washington Bouelavrd

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	271	65	86	242	36	59	418	43	80	493	46
Future Volume (vph)	39	271	65	86	242	36	59	418	43	80	493	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		0	25		0	125		125	100		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			100			80		
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		1.00	1.00	
Frt		0.971			0.981			0.986			0.987	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1628	0	1805	1644	0	1805	3307	0	1787	3313	0
Flt Permitted	0.488			0.404			0.429			0.443		
Satd. Flow (perm)	898	1628	0	763	1644	0	806	3307	0	829	3313	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		669			438			470			402	
Travel Time (s)		15.2			10.0			12.8			11.0	
Confl. Peds. (#/hr)	3		6	6		3	13		5	5		13
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	1%	0%	0%	1%	3%	0%	1%	2%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	346	0	89	286	0	61	475	0	82	555	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	29.0	29.0		29.0	29.0		6.5	27.0		6.5	26.0	
Total Split (s)	38.0	38.0		38.0	38.0		7.0	35.0		7.0	35.0	
Total Split (%)	47.5%	47.5%		47.5%	47.5%		8.8%	43.8%		8.8%	43.8%	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		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)	6.0	6.0		6.0	6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Max		None	C-Max	
Act Effect Green (s)	25.7	25.7		25.7	25.7		41.8	34.9		42.8	37.0	
Actuated g/C Ratio	0.32	0.32		0.32	0.32		0.52	0.44		0.54	0.46	

Lanes, Volumes, Timings

2: Oak Park Avenue & Washington Bouelavrd

12/09/2020

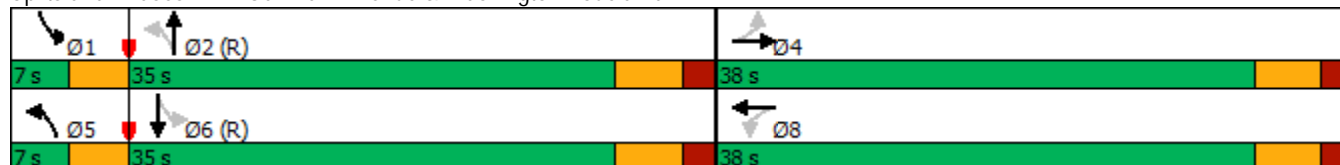


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.14	0.66		0.36	0.54		0.12	0.33		0.16	0.36	
Control Delay	18.3	29.2		23.7	25.4		10.6	17.4		10.9	16.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.3	29.2		23.7	25.4		10.6	17.4		10.9	16.8	
LOS	B	C		C	C		B	B		B	B	
Approach Delay		28.1			25.0			16.6			16.1	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	14	146		33	115		13	86		18	103	
Queue Length 95th (ft)	33	208		66	168		35	131		45	155	
Internal Link Dist (ft)		589			358			390			322	
Turn Bay Length (ft)	25			25			125			100		
Base Capacity (vph)	359	651		305	657		490	1444		511	1532	
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	0.11	0.53		0.29	0.44		0.12	0.33		0.16	0.36	

Intersection Summary























Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	80
Offset:	51 (64%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.66
Intersection Signal Delay:	20.3
Intersection LOS:	C
Intersection Capacity Utilization:	65.4%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 2: Oak Park Avenue & Washington Bouelavrd



Lanes, Volumes, Timings
3: East Avenue & Madison Street

12/09/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	581	38	30	601	22	10	37	10	44	112	51
Future Volume (vph)	32	581	38	30	601	22	10	37	10	44	112	51
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	12	10	12	12	12	15	8	12	15	8
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		30	105		105	25		0	25		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	80			130			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			0.93			0.92	0.98	0.99		0.99	0.99	
Frt			0.850			0.850		0.968			0.953	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1685	1755	1615	1685	1772	1615	1805	1597	0	1770	1699	0
Flt Permitted	0.317			0.332			0.547			0.724		
Satd. Flow (perm)	562	1755	1506	589	1772	1484	1019	1597	0	1333	1699	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			79			79		11			27	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			398			216			489	
Travel Time (s)		12.5			10.9			5.9			13.3	
Confl. Peds. (#/hr)	23		18	18		23	16		8	8		16
Confl. Bikes (#/hr)			4			6			1			1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	0%	1%	0%	0%	16%	0%	2%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	632	41	33	653	24	11	51	0	48	177	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	9.5	24.0	24.0	9.5	24.0	24.0	35.0	35.0		35.0	35.0	
Total Split (s)	10.0	45.0	45.0	10.0	45.0	45.0	35.0	35.0		35.0	35.0	
Total Split (%)	11.1%	50.0%	50.0%	11.1%	50.0%	50.0%	38.9%	38.9%		38.9%	38.9%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	63.9	57.5	57.5	63.8	57.5	57.5	14.6	14.6		14.6	14.6	
Actuated g/C Ratio	0.71	0.64	0.64	0.71	0.64	0.64	0.16	0.16		0.16	0.16	

Lanes, Volumes, Timings
 3: East Avenue & Madison Street

12/09/2020

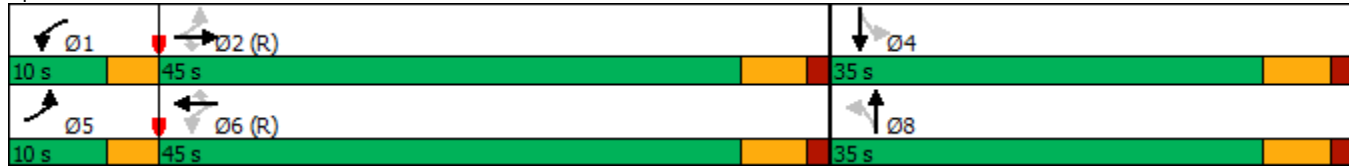


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.07	0.56	0.04	0.07	0.58	0.02	0.07	0.19		0.22	0.60	
Control Delay	2.2	6.2	0.1	4.5	14.0	0.0	30.4	27.1		33.7	37.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	2.2	6.2	0.1	4.5	14.0	0.0	30.4	27.1		33.7	37.3	
LOS	A	A	A	A	B	A	C	C		C	D	
Approach Delay		5.6			13.1			27.7			36.5	
Approach LOS		A			B			C			D	
Queue Length 50th (ft)	2	62	0	4	214	0	5	20		24	80	
Queue Length 95th (ft)	m5	103	m0	14	393	0	19	48		52	136	
Internal Link Dist (ft)		380			318			136			409	
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	481	1121	990	498	1131	976	328	522		429	565	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.07	0.56	0.04	0.07	0.58	0.02	0.03	0.10		0.11	0.31	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 6 (7%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 13.6
 Intersection LOS: B
 Intersection Capacity Utilization 55.6%
 ICU Level of Service B
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: East Avenue & Madison Street



HCM 6th TWSC
4: Euclid Avenue & Washington Boulevard

12/09/2020

Intersection

Int Delay, s/veh 2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	351	14	10	304	9	2	26	2	3	13	58
Future Vol, veh/h	29	351	14	10	304	9	2	26	2	3	13	58
Conflicting Peds, #/hr	1	0	3	3	0	1	0	0	5	5	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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	1	0	0	1	11	0	4	0	33	0	0
Mvmt Flow	31	373	15	11	323	10	2	28	2	3	14	62

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	334	0	0	391
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.13	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.227	-	-	2.2
Pot Cap-1 Maneuver	1220	-	-	1179
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1219	-	-	1176
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.3	18	12.8
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	308	1219	-	-	1176	-	-	542
HCM Lane V/C Ratio	0.104	0.025	-	-	0.009	-	-	0.145
HCM Control Delay (s)	18	8	0	-	8.1	0	-	12.8
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.5

HCM 6th TWSC
5: Wesley Avenue & Washington Boulevard

12/09/2020

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	339	8	11	310	4	11	10	12	13	24	2
Future Vol, veh/h	9	339	8	11	310	4	11	10	12	13	24	2
Conflicting Peds, #/hr	4	0	2	2	0	4	1	0	2	2	0	1
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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	10	377	9	12	344	4	12	11	13	14	27	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	352	0	0	388	0	0	790	780	386	790	782	351
Stage 1	-	-	-	-	-	-	404	404	-	374	374	-
Stage 2	-	-	-	-	-	-	386	376	-	416	408	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1218	-	-	1182	-	-	310	329	666	310	328	697
Stage 1	-	-	-	-	-	-	627	603	-	651	621	-
Stage 2	-	-	-	-	-	-	641	620	-	618	600	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1213	-	-	1180	-	-	283	319	663	289	318	694
Mov Cap-2 Maneuver	-	-	-	-	-	-	283	319	-	289	318	-
Stage 1	-	-	-	-	-	-	619	595	-	641	610	-
Stage 2	-	-	-	-	-	-	602	609	-	587	592	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.3			15.7			18.2		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	374	1213	-	-	1180	-	-	316
HCM Lane V/C Ratio	0.098	0.008	-	-	0.01	-	-	0.137
HCM Control Delay (s)	15.7	8	0	-	8.1	0	-	18.2
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.5

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	646	6	15	642	4	21
Future Vol, veh/h	646	6	15	642	4	21
Conflicting Peds, #/hr	0	9	9	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	687	6	16	683	4	22

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	702	1414
Stage 1	-	-	-	699
Stage 2	-	-	-	715
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	-	-	905	153
Stage 1	-	-	-	497
Stage 2	-	-	-	488
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	897	149
Mov Cap-2 Maneuver	-	-	-	290
Stage 1	-	-	-	493
Stage 2	-	-	-	479

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	14.5
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	406	-	-	897	-
HCM Lane V/C Ratio	0.066	-	-	0.018	-
HCM Control Delay (s)	14.5	-	-	9.1	-
HCM Lane LOS	B	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

HCM 6th TWSC
7: Madison Street & Euclid Avenue

12/09/2020

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	649	642	13	20	15
Future Vol, veh/h	18	649	642	13	20	15
Conflicting Peds, #/hr	7	0	0	7	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	25	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	19	690	683	14	21	16

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	704	0	-	0	1425 697
Stage 1	-	-	-	-	697 -
Stage 2	-	-	-	-	728 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	903	-	-	-	151 444
Stage 1	-	-	-	-	498 -
Stage 2	-	-	-	-	482 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	897	-	-	-	146 441
Mov Cap-2 Maneuver	-	-	-	-	286 -
Stage 1	-	-	-	-	484 -
Stage 2	-	-	-	-	479 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	17
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	897	-	-	-	337
HCM Lane V/C Ratio	0.021	-	-	-	0.11
HCM Control Delay (s)	9.1	-	-	-	17
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

HCM 6th TWSC
8: Wesley Avenue & Madison Street

12/09/2020

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑		↘	↑	↘	
Traffic Vol, veh/h	656	13	34	651	4	13
Future Vol, veh/h	656	13	34	651	4	13
Conflicting Peds, #/hr	0	9	9	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	698	14	36	693	4	14

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	721	0	1479
Stage 1	-	-	-	-	714
Stage 2	-	-	-	-	765
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	-	-	890	-	140
Stage 1	-	-	-	-	489
Stage 2	-	-	-	-	463
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	882	-	133
Mov Cap-2 Maneuver	-	-	-	-	272
Stage 1	-	-	-	-	485
Stage 2	-	-	-	-	444

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	15
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	379	-	-	882	-
HCM Lane V/C Ratio	0.048	-	-	0.041	-
HCM Control Delay (s)	15	-	-	9.3	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	-

HCM 6th TWSC
 9: Madison Street & Wesley Avenue

12/09/2020

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	644	649	13	7	36
Future Vol, veh/h	25	644	649	13	7	36
Conflicting Peds, #/hr	7	0	0	7	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	27	685	690	14	7	38

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	711	0	-	0	1443 704
Stage 1	-	-	-	-	704 -
Stage 2	-	-	-	-	739 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	898	-	-	-	147 440
Stage 1	-	-	-	-	494 -
Stage 2	-	-	-	-	476 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	892	-	-	-	141 437
Mov Cap-2 Maneuver	-	-	-	-	281 -
Stage 1	-	-	-	-	476 -
Stage 2	-	-	-	-	473 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	15.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	892	-	-	-	401
HCM Lane V/C Ratio	0.03	-	-	-	0.114
HCM Control Delay (s)	9.2	-	-	-	15.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

HCM 6th TWSC
10: Oak Park Avenue & Chase Bank/Alley

12/09/2020

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	12	0	0	1	81	513	1	0	600	44
Future Vol, veh/h	6	0	12	0	0	1	81	513	1	0	600	44
Conflicting Peds, #/hr	3	0	1	1	0	3	16	0	14	14	0	16
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	6	0	13	0	0	1	84	534	1	0	625	46

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1102	1381	665	1373	1404	285	687	0	0	549	0	0
Stage 1	664	664	-	717	717	-	-	-	-	-	-	-
Stage 2	438	717	-	656	687	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.2	7.3	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	179	145	464	115	141	718	916	-	-	1031	-	-
Stage 1	453	461	-	391	437	-	-	-	-	-	-	-
Stage 2	573	437	-	458	450	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	158	122	456	99	119	706	902	-	-	1017	-	-
Mov Cap-2 Maneuver	158	122	-	99	119	-	-	-	-	-	-	-
Stage 1	387	454	-	334	374	-	-	-	-	-	-	-
Stage 2	495	374	-	445	443	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	18.8		10.1		1.7		0	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	902	-	-	280	706	1017	-
HCM Lane V/C Ratio	0.094	-	-	0.067	0.001	-	-
HCM Control Delay (s)	9.4	0.5	-	18.8	10.1	0	-
HCM Lane LOS	A	A	-	C	B	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.2	0	0	-

HCM 6th TWSC
11: Euclid Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	0	0	0	0	30	1	2	33	2
Future Vol, veh/h	0	0	2	0	0	0	0	30	1	2	33	2
Conflicting Peds, #/hr	5	0	2	2	0	5	4	0	1	1	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	0	0
Mvmt Flow	0	0	2	0	0	0	0	34	1	2	38	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	87	83	45	82	84	41	44	0	0	36	0	0
Stage 1	47	47	-	36	36	-	-	-	-	-	-	-
Stage 2	40	36	-	46	48	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	904	811	1031	910	810	1036	1577	-	-	1588	-	-
Stage 1	972	860	-	985	869	-	-	-	-	-	-	-
Stage 2	980	869	-	973	859	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	896	806	1025	905	805	1030	1571	-	-	1586	-	-
Mov Cap-2 Maneuver	896	806	-	905	805	-	-	-	-	-	-	-
Stage 1	968	856	-	984	868	-	-	-	-	-	-	-
Stage 2	975	868	-	968	855	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	8.5	0	0	0.4
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1571	-	-	1025	-	1586	-	-
HCM Lane V/C Ratio	-	-	-	0.002	-	0.001	-	-
HCM Control Delay (s)	0	-	-	8.5	0	7.3	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

HCM 6th TWSC
12: Wesley Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	1	0	1	2	32	4	2	40	1
Future Vol, veh/h	0	0	2	1	0	1	2	32	4	2	40	1
Conflicting Peds, #/hr	1	0	0	0	0	1	4	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	3	0
Mvmt Flow	0	0	3	1	0	1	3	43	5	3	54	1

























Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	118	119	59	114	117	47	59	0	0	48	0	0
Stage 1	65	65	-	52	52	-	-	-	-	-	-	-
Stage 2	53	54	-	62	65	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	863	775	1012	868	777	1028	1558	-	-	1572	-	-
Stage 1	951	845	-	966	856	-	-	-	-	-	-	-
Stage 2	965	854	-	954	845	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	855	769	1008	863	771	1027	1552	-	-	1572	-	-
Mov Cap-2 Maneuver	855	769	-	863	771	-	-	-	-	-	-	-
Stage 1	945	840	-	964	854	-	-	-	-	-	-	-
Stage 2	961	852	-	950	840	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.6		8.8		0.4		0.3	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1552	-	-	1008	938	1572	-
HCM Lane V/C Ratio	0.002	-	-	0.003	0.003	0.002	-
HCM Control Delay (s)	7.3	0	-	8.6	8.8	7.3	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-

Lanes, Volumes, Timings
1: Oak Park Avenue & Madison Street

12/09/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	600	58	60	553	104	87	447	56	89	401	92
Future Volume (vph)	70	600	58	60	553	104	87	447	56	89	401	92
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		50	70		100	95		125	100		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	50			170			75			70		
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			0.96			0.95	0.98	0.99		0.98	0.99	
Frt			0.850			0.850		0.983			0.972	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1636	1594	1449	1620	1603	1463	1636	2942	0	1685	2964	0
Flt Permitted	0.244			0.227			0.310			0.298		
Satd. Flow (perm)	420	1594	1398	387	1603	1396	525	2942	0	520	2964	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		463			334			361			190	
Travel Time (s)		12.6			9.1			9.8			5.2	
Confl. Peds. (#/hr)	12		14	14		12	15		20	20		15
Confl. Bikes (#/hr)			3			24						
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 (%)	3%	4%	4%	4%	3%	3%	3%	5%	6%	0%	3%	1%
Bus Blockages (#/hr)	0	2	0	0	3	0	0	4	0	0	4	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	73	625	60	63	576	108	91	524	0	93	514	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	27.0	27.0	9.5	27.0	27.0	9.5	33.0		9.5	28.0	
Total Split (s)	13.0	43.0	43.0	13.0	43.0	43.0	13.0	41.0		13.0	41.0	
Total Split (%)	11.8%	39.1%	39.1%	11.8%	39.1%	39.1%	11.8%	37.3%		11.8%	37.3%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	3.0	6.0		3.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Min	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	62.6	52.9	52.9	61.4	50.9	50.9	36.9	26.3		37.0	26.4	
Actuated g/C Ratio	0.57	0.48	0.48	0.56	0.46	0.46	0.34	0.24		0.34	0.24	

No Build Morning Peak Hour
Pete's Market Oak Park

Synchro 10 Report

Lanes, Volumes, Timings
 1: Oak Park Avenue & Madison Street

12/09/2020

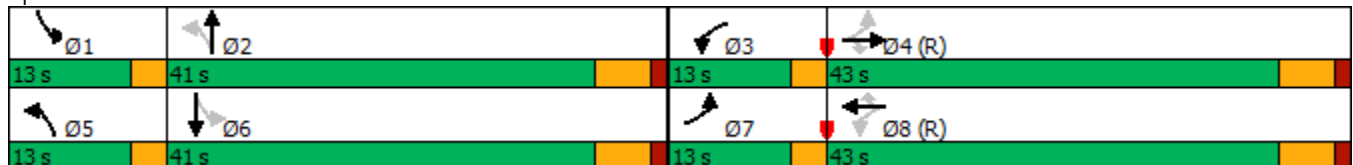


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.22	0.82	0.09	0.21	0.78	0.17	0.34	0.74		0.35	0.72	
Control Delay	14.1	38.7	21.2	7.5	30.0	14.1	25.0	45.2		25.0	44.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	14.1	38.7	21.2	7.5	30.0	14.1	25.0	45.2		25.0	44.2	
LOS	B	D	C	A	C	B	C	D		C	D	
Approach Delay		34.9			25.8			42.2			41.3	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	22	397	24	13	361	46	41	180		42	175	
Queue Length 95th (ft)	51	#724	59	m27	#658	m81	69	222		70	217	
Internal Link Dist (ft)		383			254			281			110	
Turn Bay Length (ft)	150		50	70		100	95			100		
Base Capacity (vph)	355	766	671	335	741	645	279	936		282	943	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.21	0.82	0.09	0.19	0.78	0.17	0.33	0.56		0.33	0.55	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 63 (57%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 35.5 Intersection LOS: D
 Intersection Capacity Utilization 73.2% 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: 1: Oak Park Avenue & Madison Street



Lanes, Volumes, Timings

2: Oak Park Avenue & Washington Boulevard

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	435	48	76	427	32	85	484	33	41	482	125
Future Volume (vph)	31	435	48	76	427	32	85	484	33	41	482	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		0	25		0	125		125	100		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			100			80		
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		0.99	1.00		0.99	1.00		0.98	0.99	
Frt		0.985			0.990			0.990			0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1645	0	1787	1662	0	1787	3190	0	1770	3181	0
Flt Permitted	0.253			0.224			0.311			0.404		
Satd. Flow (perm)	477	1645	0	419	1662	0	576	3190	0	739	3181	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		669			438			470			183	
Travel Time (s)		15.2			10.0			12.8			5.0	
Confl. Peds. (#/hr)	19		18	18		19	20		21	21		20
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	6%	1%	1%	2%	1%	5%	3%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	531	0	84	504	0	93	568	0	45	667	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	29.0	29.0		29.0	29.0		6.5	27.0		6.5	26.0	
Total Split (s)	38.0	38.0		38.0	38.0		8.0	44.0		8.0	44.0	
Total Split (%)	42.2%	42.2%		42.2%	42.2%		8.9%	48.9%		8.9%	48.9%	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		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)	6.0	6.0		6.0	6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	33.7	33.7		33.7	33.7		44.7	39.5		43.8	37.4	
Actuated g/C Ratio	0.37	0.37		0.37	0.37		0.50	0.44		0.49	0.42	

No Build Morning Peak Hour
Pete's Market Oak Park

Synchro 10 Report

Lanes, Volumes, Timings

2: Oak Park Avenue & Washington Boulevard

12/09/2020

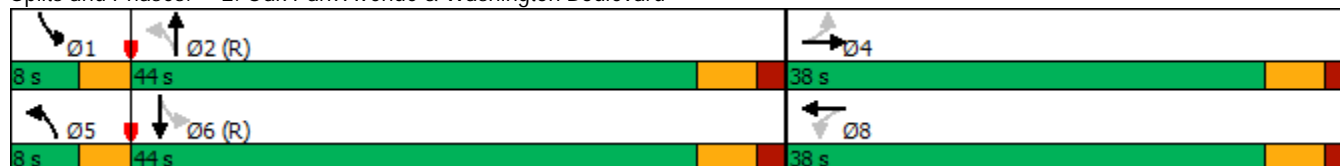


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.19	0.86		0.54	0.81		0.26	0.41		0.11	0.50	
Control Delay	22.8	42.7		37.8	37.8		13.0	19.0		11.3	21.6	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	22.8	42.7		37.8	37.8		13.0	19.0		11.3	21.6	
LOS	C	D		D	D		B	B		B	C	
Approach Delay		41.5			37.8			18.2			21.0	
Approach LOS		D			D			B			C	
Queue Length 50th (ft)	12	255		34	235		28	129		13	157	
Queue Length 95th (ft)	38	#480		#103	#440		48	160		27	192	
Internal Link Dist (ft)		589			358			390			103	
Turn Bay Length (ft)	25			25			125			100		
Base Capacity (vph)	179	620		157	626		357	1441		417	1409	
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	0.19	0.86		0.54	0.81		0.26	0.39		0.11	0.47	

Intersection Summary























Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 41 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 28.8
 Intersection LOS: C
 Intersection Capacity Utilization 73.4%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Oak Park Avenue & Washington Boulevard



Lanes, Volumes, Timings
3: East Avenue & Madison Street

12/09/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	475	33	65	512	51	74	325	89	67	150	67
Future Volume (vph)	150	475	33	65	512	51	74	325	89	67	150	67
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	12	10	12	12	12	15	8	12	15	8
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		30	105		105	25		0	25		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	80			130			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			0.94			0.49	0.96	0.97		0.96	0.97	
Frt			0.850			0.850		0.968			0.954	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1652	1724	1524	1685	1700	1495	1787	1653	0	1770	1704	0
Flt Permitted	0.255			0.335			0.497			0.186		
Satd. Flow (perm)	443	1724	1435	594	1700	731	894	1653	0	331	1704	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			64			64		13			21	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		445			188			373			180	
Travel Time (s)		12.1			5.1			10.2			4.9	
Confl. Peds. (#/hr)	165		12	12		165	36		67	67		36
Confl. Bikes (#/hr)			3			1						
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	3%	6%	0%	4%	8%	1%	7%	3%	2%	1%	4%
Bus Blockages (#/hr)	0	2	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	169	534	37	73	575	57	83	465	0	75	244	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	9.5	24.0	24.0	9.5	26.0	26.0	35.0	35.0		35.0	35.0	
Total Split (s)	13.0	56.0	56.0	13.0	56.0	56.0	41.0	41.0		41.0	41.0	
Total Split (%)	11.8%	50.9%	50.9%	11.8%	50.9%	50.9%	37.3%	37.3%		37.3%	37.3%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	65.6	55.6	55.6	62.3	52.3	52.3	33.2	33.2		33.2	33.2	
Actuated g/C Ratio	0.60	0.51	0.51	0.57	0.48	0.48	0.30	0.30		0.30	0.30	

Lanes, Volumes, Timings
 3: East Avenue & Madison Street

12/09/2020

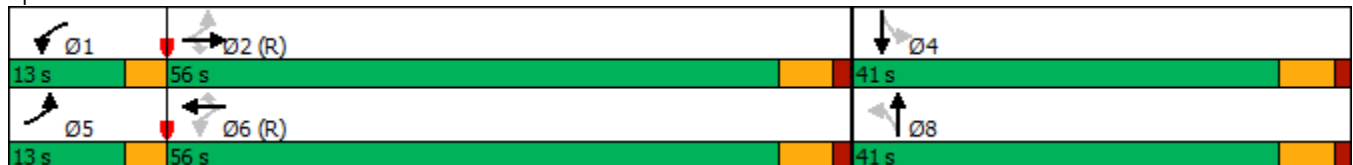


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.47	0.61	0.05	0.18	0.71	0.15	0.31	0.92		0.75	0.46	
Control Delay	10.3	13.9	0.2	10.5	29.7	4.7	32.4	60.1		77.9	31.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	10.3	13.9	0.2	10.5	29.7	4.7	32.4	60.1		77.9	31.1	
LOS	B	B	A	B	C	A	C	E		E	C	
Approach Delay		12.4			25.7			55.9			42.1	
Approach LOS		B			C			E			D	
Queue Length 50th (ft)	18	226	1	20	326	0	44	301		47	124	
Queue Length 95th (ft)	m25	m271	m0	40	461	20	86	#477		#127	196	
Internal Link Dist (ft)		365			108			293			100	
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	369	871	757	441	808	381	284	534		105	556	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.46	0.61	0.05	0.17	0.71	0.15	0.29	0.87		0.71	0.44	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 100 (91%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 30.9 Intersection LOS: C
 Intersection Capacity Utilization 84.7% ICU Level of Service E
 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: 3: East Avenue & Madison Street



Lanes, Volumes, Timings
 19: East Avenue & Washington Boulevard

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	26	381	141	53	325	13	101	202	108	13	239	29
Future Volume (vph)	26	381	141	53	325	13	101	202	108	13	239	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	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		0.99			1.00			0.94			0.99	
Frt		0.965			0.996			0.965			0.986	
Flt Protected		0.998			0.993			0.988			0.998	
Satd. Flow (prot)	0	1546	0	0	1535	0	0	1419	0	0	1598	0
Flt Permitted		0.961			0.820			0.728			0.968	
Satd. Flow (perm)	0	1488	0	0	1266	0	0	1040	0	0	1545	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		24			2			21			7	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		450			101			471			139	
Travel Time (s)		10.2			2.3			12.8			3.8	
Confl. Peds. (#/hr)	13		18	18		13	21		92	92		21
Confl. Bikes (#/hr)			1						29			1
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	1%	0%	0%	1%	0%	1%	0%	5%	0%	1%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		7			15			11			6	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	685	0	0	488	0	0	514	0	0	351	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	31.0	31.0		31.0	31.0		31.0	31.0		31.0	31.0	
Total Split (s)	55.0	55.0		55.0	55.0		45.0	45.0		45.0	45.0	
Total Split (%)	55.0%	55.0%		55.0%	55.0%		45.0%	45.0%		45.0%	45.0%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		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-Max	C-Max		C-Max	C-Max		None	None		None	None	
Act Effect Green (s)		49.0			49.0			39.0			39.0	
Actuated g/C Ratio		0.49			0.49			0.39			0.39	

Lanes, Volumes, Timings
 19: East Avenue & Washington Boulevard

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.92			0.79			1.23				0.58
Control Delay		43.5			32.1			151.4				28.2
Queue Delay		0.0			0.0			0.0				0.0
Total Delay		43.5			32.1			151.4				28.2
LOS		D			C			F				C
Approach Delay		43.5			32.1			151.4				28.2
Approach LOS		D			C			F				C
Queue Length 50th (ft)		381			247			~400				170
Queue Length 95th (ft)		#479			318			#504				223
Internal Link Dist (ft)		370			21			391				59
Turn Bay Length (ft)												
Base Capacity (vph)		741			621			418				606
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		0.92			0.79			1.23				0.58

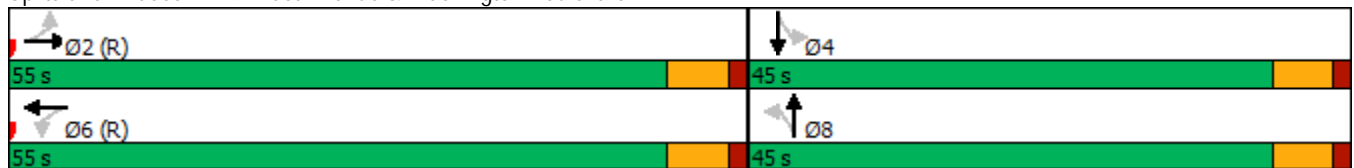
Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 58 (58%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.23
 Intersection Signal Delay: 65.3
 Intersection Capacity Utilization 95.4%
 Analysis Period (min) 15
 Intersection LOS: E
 ICU Level of Service F

~ 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.

Splits and Phases: 19: East Avenue & Washington Boulevard



HCM 6th TWSC
4: Euclid Avenue & Washington Boulevard

12/09/2020

Intersection												
Int Delay, s/veh	4.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	22	481	6	14	459	13	8	53	10	1	9	68
Future Vol, veh/h	22	481	6	14	459	13	8	53	10	1	9	68
Conflicting Peds, #/hr	21	0	9	9	0	21	4	0	11	11	0	4
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	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	4	1	0	0	2	0	0	2	10	0	0	0
Mvmt Flow	26	573	7	17	546	15	10	63	12	1	11	81

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	582	0	0	589	0	0	1276	1254	597	1286	1250	579
Stage 1	-	-	-	-	-	-	638	638	-	609	609	-
Stage 2	-	-	-	-	-	-	638	616	-	677	641	-
Critical Hdwy	4.14	-	-	4.1	-	-	7.1	6.52	6.3	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.2	-	-	3.5	4.018	3.39	3.5	4	3.3
Pot Cap-1 Maneuver	982	-	-	996	-	-	145	172	488	143	174	519
Stage 1	-	-	-	-	-	-	468	471	-	486	488	-
Stage 2	-	-	-	-	-	-	468	482	-	446	473	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	962	-	-	987	-	-	109	156	479	88	158	507
Mov Cap-2 Maneuver	-	-	-	-	-	-	109	156	-	88	158	-
Stage 1	-	-	-	-	-	-	446	448	-	457	467	-
Stage 2	-	-	-	-	-	-	373	461	-	355	450	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.4			0.3			48.2			17.3		
HCM LOS							E			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	164	962	-	-	987	-	-	385
HCM Lane V/C Ratio	0.515	0.027	-	-	0.017	-	-	0.241
HCM Control Delay (s)	48.2	8.8	0	-	8.7	0	-	17.3
HCM Lane LOS	E	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	2.5	0.1	-	-	0.1	-	-	0.9

HCM 6th TWSC
5: Wesley Avenue & Washington Boulevard

12/09/2020

Intersection												
Int Delay, s/veh	5.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	469	9	17	457	2	13	44	7	4	31	16
Future Vol, veh/h	14	469	9	17	457	2	13	44	7	4	31	16
Conflicting Peds, #/hr	15	0	1	1	0	15	4	0	0	0	0	4
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	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	1	22	0	1	0	0	2	14	25	0	0
Mvmt Flow	18	594	11	22	578	3	16	56	9	5	39	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	596	0	0	606	0	0	1294	1277	601	1307	1281	599
Stage 1	-	-	-	-	-	-	637	637	-	639	639	-
Stage 2	-	-	-	-	-	-	657	640	-	668	642	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.52	6.34	7.35	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.52	-	6.35	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.52	-	6.35	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.018	3.426	3.725	4	3.3
Pot Cap-1 Maneuver	990	-	-	982	-	-	141	166	479	122	167	505
Stage 1	-	-	-	-	-	-	469	471	-	428	474	-
Stage 2	-	-	-	-	-	-	457	470	-	412	472	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	976	-	-	981	-	-	103	154	479	81	155	496
Mov Cap-2 Maneuver	-	-	-	-	-	-	103	154	-	81	155	-
Stage 1	-	-	-	-	-	-	455	457	-	410	452	-
Stage 2	-	-	-	-	-	-	386	448	-	345	458	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.3			54.1			35.5		
HCM LOS							F			E		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	150	976	-	-	981	-	-	181
HCM Lane V/C Ratio	0.54	0.018	-	-	0.022	-	-	0.357
HCM Control Delay (s)	54.1	8.8	0	-	8.8	0	-	35.5
HCM Lane LOS	F	A	A	-	A	A	-	E
HCM 95th %tile Q(veh)	2.7	0.1	-	-	0.1	-	-	1.5

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	734	11	4	705	12	4
Future Vol, veh/h	734	11	4	705	12	4
Conflicting Peds, #/hr	0	6	6	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	781	12	4	750	13	4

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	799	0	1551
Stage 1	-	-	-	-	793
Stage 2	-	-	-	-	758
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	-	-	833	-	126
Stage 1	-	-	-	-	449
Stage 2	-	-	-	-	466
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	828	-	125
Mov Cap-2 Maneuver	-	-	-	-	265
Stage 1	-	-	-	-	446
Stage 2	-	-	-	-	464

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	18.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	288	-	-	828	-
HCM Lane V/C Ratio	0.059	-	-	0.005	-
HCM Control Delay (s)	18.3	-	-	9.4	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
7: Madison Street & Euclid Avenue

12/09/2020

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	55	683	676	15	3	33
Future Vol, veh/h	55	683	676	15	3	33
Conflicting Peds, #/hr	6	0	0	6	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	25	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	3	3	0	33	0
Mvmt Flow	59	727	719	16	3	35

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	741	0	-	0	1579 733
Stage 1	-	-	-	-	733 -
Stage 2	-	-	-	-	846 -
Critical Hdwy	4.1	-	-	-	6.73 6.2
Critical Hdwy Stg 1	-	-	-	-	5.73 -
Critical Hdwy Stg 2	-	-	-	-	5.73 -
Follow-up Hdwy	2.2	-	-	-	3.797 3.3
Pot Cap-1 Maneuver	875	-	-	-	102 424
Stage 1	-	-	-	-	424 -
Stage 2	-	-	-	-	373 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	870	-	-	-	94 422
Mov Cap-2 Maneuver	-	-	-	-	217 -
Stage 1	-	-	-	-	393 -
Stage 2	-	-	-	-	371 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	15.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	870	-	-	-	391
HCM Lane V/C Ratio	0.067	-	-	-	0.098
HCM Control Delay (s)	9.4	-	-	-	15.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.3

HCM 6th TWSC
 8: Wesley Avenue & Madison Street

12/09/2020

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	683	3	6	683	8	13
Future Vol, veh/h	683	3	6	683	8	13
Conflicting Peds, #/hr	0	6	6	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	727	3	6	727	9	14

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	736	0	1474
Stage 1	-	-	-	-	735
Stage 2	-	-	-	-	739
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	-	-	879	-	141
Stage 1	-	-	-	-	478
Stage 2	-	-	-	-	476
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	874	-	139
Mov Cap-2 Maneuver	-	-	-	-	280
Stage 1	-	-	-	-	475
Stage 2	-	-	-	-	473

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	15.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	352	-	-	874	-
HCM Lane V/C Ratio	0.063	-	-	0.007	-
HCM Control Delay (s)	15.9	-	-	9.1	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
 9: Madison Street & Wesley Avenue

12/09/2020

Intersection						
Int Delay, s/veh	1					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	46	650	635	18	8	54
Future Vol, veh/h	46	650	635	18	8	54
Conflicting Peds, #/hr	6	0	0	6	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	49	691	676	19	9	57

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	701	0	-	0	1482 692
Stage 1	-	-	-	-	692 -
Stage 2	-	-	-	-	790 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	905	-	-	-	139 447
Stage 1	-	-	-	-	500 -
Stage 2	-	-	-	-	451 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	900	-	-	-	130 444
Mov Cap-2 Maneuver	-	-	-	-	269 -
Stage 1	-	-	-	-	470 -
Stage 2	-	-	-	-	448 -

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	15.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	900	-	-	-	410
HCM Lane V/C Ratio	0.054	-	-	-	0.161
HCM Control Delay (s)	9.2	-	-	-	15.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.6

HCM 6th TWSC
10: Oak Park Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	0	2	0	3	25	596	0	26	580	0
Future Vol, veh/h	3	0	0	2	0	3	25	596	0	26	580	0
Conflicting Peds, #/hr	1	0	1	1	0	1	19	0	17	17	0	19
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	5	0	0	3	0
Mvmt Flow	3	0	0	2	0	3	26	627	0	27	611	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1051	1380	326	1057	1380	332	630	0	0	644	0	0
Stage 1	684	684	-	696	696	-	-	-	-	-	-	-
Stage 2	367	696	-	361	684	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	184	146	676	182	146	670	962	-	-	951	-	-
Stage 1	410	452	-	403	446	-	-	-	-	-	-	-
Stage 2	630	446	-	636	452	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	169	131	667	168	131	662	950	-	-	941	-	-
Mov Cap-2 Maneuver	169	131	-	168	131	-	-	-	-	-	-	-
Stage 1	388	428	-	382	422	-	-	-	-	-	-	-
Stage 2	600	422	-	608	428	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	26.7		17.1		0.6		0.6	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	950	-	-	169	304	941	-
HCM Lane V/C Ratio	0.028	-	-	0.019	0.017	0.029	-
HCM Control Delay (s)	8.9	0.2	-	26.7	17.1	8.9	0.2
HCM Lane LOS	A	A	-	D	C	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0.1	-

HCM 6th TWSC
11: Euclid Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	3	6	0	1	2	68	0	1	27	1
Future Vol, veh/h	2	0	3	6	0	1	2	68	0	1	27	1
Conflicting Peds, #/hr	1	0	10	10	0	1	0	0	1	1	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	76	76	76	76	76	76	76	76	76	76	76	76
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	4	0
Mvmt Flow	3	0	4	8	0	1	3	89	0	1	36	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	136	135	47	147	135	91	37	0	0	90	0	0
Stage 1	39	39	-	96	96	-	-	-	-	-	-	-
Stage 2	97	96	-	51	39	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	840	760	1028	826	760	972	1587	-	-	1518	-	-
Stage 1	981	866	-	916	819	-	-	-	-	-	-	-
Stage 2	914	819	-	967	866	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	836	757	1018	813	757	970	1587	-	-	1517	-	-
Mov Cap-2 Maneuver	836	757	-	813	757	-	-	-	-	-	-	-
Stage 1	979	865	-	913	817	-	-	-	-	-	-	-
Stage 2	910	817	-	953	865	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.9		9.4		0.2		0.3	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1587	-	-	936	832	1517	-	-
HCM Lane V/C Ratio	0.002	-	-	0.007	0.011	0.001	-	-
HCM Control Delay (s)	7.3	0	-	8.9	9.4	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

HCM 6th TWSC
12: Wesley Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	2	6	1	2	2	59	3	2	54	1
Future Vol, veh/h	3	0	2	6	1	2	2	59	3	2	54	1
Conflicting Peds, #/hr	11	0	8	8	0	11	3	0	1	1	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	64	64	64	64	64	64	64	64	64	64	64
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	2	100
Mvmt Flow	5	0	3	9	2	3	3	92	5	3	84	2

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	208	198	96	203	197	107	89	0	0	98	0	0
Stage 1	94	94	-	102	102	-	-	-	-	-	-	-
Stage 2	114	104	-	101	95	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	754	701	966	759	702	953	1519	-	-	1508	-	-
Stage 1	918	821	-	909	815	-	-	-	-	-	-	-
Stage 2	896	813	-	910	820	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	739	696	957	748	697	942	1516	-	-	1507	-	-
Mov Cap-2 Maneuver	739	696	-	748	697	-	-	-	-	-	-	-
Stage 1	914	818	-	906	813	-	-	-	-	-	-	-
Stage 2	880	811	-	898	817	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	9.5		9.7			0.2			0.3		
HCM LOS	A		A								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1516	-	-	813	777	1507	-	-
HCM Lane V/C Ratio	0.002	-	-	0.01	0.018	0.002	-	-
HCM Control Delay (s)	7.4	0	-	9.5	9.7	7.4	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.1	0	-	-

HCM 6th TWSC
 23: East Avenue & Alley/Fenwick Inbound Drive

12/09/2020

Intersection												
Int Delay, s/veh	2.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔						↔			↔	
Traffic Vol, veh/h	2	1	6	0	0	0	0	250	276	174	278	3
Future Vol, veh/h	2	1	6	0	0	0	0	250	276	174	278	3
Conflicting Peds, #/hr	109	0	0	0	0	109	0	0	90	90	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	1	1	0
Mvmt Flow	3	1	8	0	0	0	0	325	358	226	361	4

























Major/Minor	Minor2			Major1			Major2					
Conflicting Flow All	1428	1588	363				365	0	0	773	0	0
Stage 1	815	815	-				-	-	-	-	-	-
Stage 2	613	773	-				-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2				4.1	-	-	4.11	-	-
Critical Hdwy Stg 1	5.4	5.5	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-				-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3				2.2	-	-	2.209	-	-
Pot Cap-1 Maneuver	150	109	686				1205	-	-	847	-	-
Stage 1	439	394	-				-	-	-	-	-	-
Stage 2	544	412	-				-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	100	0	686				1205	-	-	847	-	-
Mov Cap-2 Maneuver	100	0	-				-	-	-	-	-	-
Stage 1	439	0	-				-	-	-	-	-	-
Stage 2	362	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	18.5	0	4.1
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1205	-	-	278	847	-	-
HCM Lane V/C Ratio	-	-	-	0.042	0.267	-	-
HCM Control Delay (s)	0	-	-	18.5	10.8	0	-
HCM Lane LOS	A	-	-	C	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	1.1	-	-

Lanes, Volumes, Timings
1: Oak Park Avenue & Madison Street

12/09/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	94	522	96	75	501	95	107	440	61	108	453	98
Future Volume (vph)	94	522	96	75	501	95	107	440	61	108	453	98
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		50	70		100	95		125	100		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	50			170			75			70		
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		0.97			0.96	0.97	0.99		0.99	0.98	
Frt			0.850			0.850		0.982			0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1668	1641	1507	1668	1625	1492	1668	3064	0	1685	3002	0
Flt Permitted	0.281			0.292			0.258			0.302		
Satd. Flow (perm)	490	1641	1455	513	1625	1428	441	3064	0	529	3002	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		463			334			361			100	
Travel Time (s)		12.6			9.1			9.8			2.7	
Confl. Peds. (#/hr)	19		14	14		19	28		15	15		28
Confl. Bikes (#/hr)			2			3			1			1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	1%	2%	1%	1%	1%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	4	0	0	4	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	97	538	99	77	516	98	110	517	0	111	568	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	27.0	27.0	9.5	27.0	27.0	9.5	33.0		9.5	28.0	
Total Split (s)	13.0	49.0	49.0	13.0	49.0	49.0	13.0	35.0		13.0	35.0	
Total Split (%)	11.8%	44.5%	44.5%	11.8%	44.5%	44.5%	11.8%	31.8%		11.8%	31.8%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	3.0	6.0		3.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Min	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	60.8	50.7	50.7	59.3	48.4	48.4	38.2	26.0		38.2	26.0	
Actuated g/C Ratio	0.55	0.46	0.46	0.54	0.44	0.44	0.35	0.24		0.35	0.24	

No BuilId Evening Peak Hour
Pete's Fresh Market

Synchro 10 Report

Lanes, Volumes, Timings
 1: Oak Park Avenue & Madison Street

12/09/2020

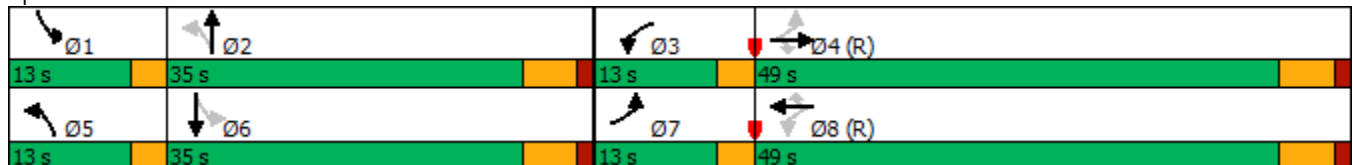


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.27	0.71	0.15	0.21	0.72	0.16	0.43	0.71		0.40	0.80	
Control Delay	13.9	32.8	20.7	11.4	34.0	20.4	27.4	44.2		26.3	48.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	13.9	32.8	20.7	11.4	34.0	20.4	27.4	44.2		26.3	48.6	
LOS	B	C	C	B	C	C	C	D		C	D	
Approach Delay		28.7			29.5			41.3			44.9	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	31	318	42	30	320	48	50	174		50	196	
Queue Length 95th (ft)	60	#529	84	m50	#502	m94	87	230		87	256	
Internal Link Dist (ft)		383			254			281			20	
Turn Bay Length (ft)	150		50	70		100	95			100		
Base Capacity (vph)	381	755	670	390	715	629	267	807		292	791	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.25	0.71	0.15	0.20	0.72	0.16	0.41	0.64		0.38	0.72	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 16 (15%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 35.8
 Intersection LOS: D
 Intersection Capacity Utilization 70.4%
 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.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Oak Park Avenue & Madison Street



Lanes, Volumes, Timings

2: Oak Park Avenue & Washington Boulevard

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	477	54	62	463	33	70	469	47	45	571	120
Future Volume (vph)	32	477	54	62	463	33	70	469	47	45	571	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		0	25		0	125		125	100		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			100			80		
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		0.99	1.00		0.97	0.99		0.98	0.98	
Frt		0.985			0.990			0.986			0.974	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1655	0	1805	1664	0	1805	3293	0	1805	3216	0
Flt Permitted	0.240			0.200			0.283			0.413		
Satd. Flow (perm)	453	1655	0	378	1664	0	523	3293	0	772	3216	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		669			438			470			331	
Travel Time (s)		15.2			10.0			12.8			9.0	
Confl. Peds. (#/hr)	17		17	17		17	40		17	17		40
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	1%	2%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	559	0	65	522	0	74	543	0	47	727	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	29.0	29.0		29.0	29.0		6.5	27.0		6.5	26.0	
Total Split (s)	37.0	37.0		37.0	37.0		8.0	45.0		8.0	45.0	
Total Split (%)	41.1%	41.1%		41.1%	41.1%		8.9%	50.0%		8.9%	50.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		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)	6.0	6.0		6.0	6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	34.2	34.2		34.2	34.2		44.2	39.0		43.5	37.4	
Actuated g/C Ratio	0.38	0.38		0.38	0.38		0.49	0.43		0.48	0.42	

No BuilId Evening Peak Hour
Pete's Fresh Market

Synchro 10 Report

Lanes, Volumes, Timings

2: Oak Park Avenue & Washington Boulevard

12/09/2020

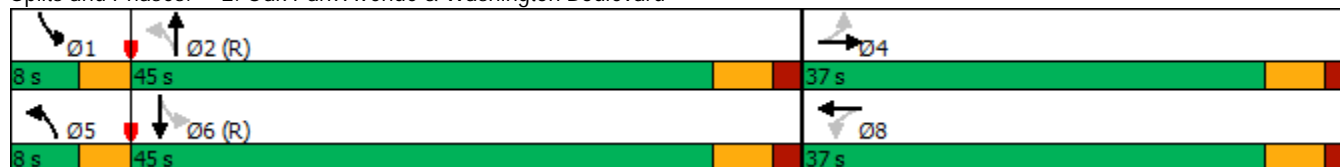


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.20	0.89		0.45	0.83		0.23	0.38		0.11	0.54	
Control Delay	24.1	46.2		32.0	34.1		12.2	18.4		10.7	21.8	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	24.1	46.2		32.0	34.1		12.2	18.4		10.7	21.8	
LOS	C	D		C	C		B	B		B	C	
Approach Delay		44.9			33.9			17.7			21.1	
Approach LOS		D			C			B			C	
Queue Length 50th (ft)	13	294		20	166		20	113		13	164	
Queue Length 95th (ft)	39	#526		m33	m#411		38	148		27	207	
Internal Link Dist (ft)		589			358			390			251	
Turn Bay Length (ft)	25			25			125			100		
Base Capacity (vph)	172	628		143	631		324	1448		427	1413	
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	0.20	0.89		0.45	0.83		0.23	0.38		0.11	0.51	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 34 (38%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 28.7
 Intersection LOS: C
 Intersection Capacity Utilization 77.6%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 2: Oak Park Avenue & Washington Boulevard



Lanes, Volumes, Timings 3: East Avenue & Madison Street

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	503	59	84	485	55	49	202	81	42	288	87
Future Volume (vph)	74	503	59	84	485	55	49	202	81	42	288	87
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	12	10	12	12	12	15	8	12	15	8
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		30	105		105	25		0	25		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	80			130			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	0.97		0.94	0.99		0.88	0.99	0.98		0.98	0.99	
Frt			0.850			0.850		0.957			0.965	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1668	1758	1615	1685	1741	1615	1805	1738	0	1770	1763	0
Flt Permitted	0.384			0.367			0.214			0.373		
Satd. Flow (perm)	655	1758	1523	644	1741	1421	402	1738	0	681	1763	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			64			64		18			14	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		442			418			343			175	
Travel Time (s)		12.1			11.4			9.4			4.8	
Confl. Peds. (#/hr)	33		12	12		33	15		18	18		15
Confl. Bikes (#/hr)			1			2						
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%	1%	0%	0%	2%	0%	0%	2%	0%	2%	1%	2%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	0	0	0	0	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	513	60	86	495	56	50	289	0	43	383	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases	2		2	6		6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	9.5	24.0	24.0	9.5	24.0	24.0	35.0	35.0		35.0	35.0	
Total Split (s)	14.0	60.0	60.0	14.0	60.0	60.0	36.0	36.0		36.0	36.0	
Total Split (%)	12.7%	54.5%	54.5%	12.7%	54.5%	54.5%	32.7%	32.7%		32.7%	32.7%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	70.2	61.6	61.6	70.6	61.8	61.8	27.3	27.3		27.3	27.3	
Actuated g/C Ratio	0.64	0.56	0.56	0.64	0.56	0.56	0.25	0.25		0.25	0.25	

No Build Evening Peak Hour
Pete's Fresh Market

Synchro 10 Report

Lanes, Volumes, Timings
3: East Avenue & Madison Street

12/09/2020

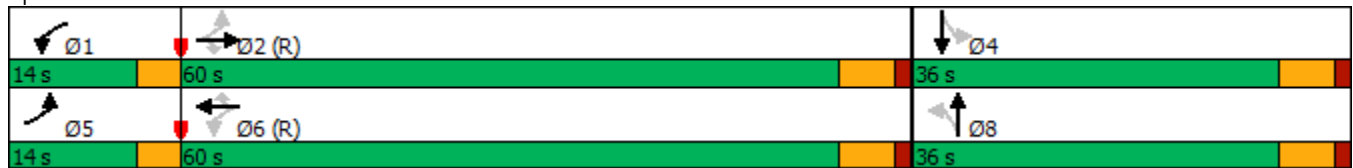


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.16	0.52	0.07	0.18	0.51	0.07	0.51	0.65		0.26	0.86	
Control Delay	4.2	9.3	0.3	8.1	18.7	3.2	53.5	41.7		36.3	56.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	4.2	9.3	0.3	8.1	18.7	3.2	53.5	41.7		36.3	56.7	
LOS	A	A	A	A	B	A	D	D		D	E	
Approach Delay		7.9			15.9			43.5			54.7	
Approach LOS		A			B			D			D	
Queue Length 50th (ft)	9	98	1	21	222	0	30	167		24	244	
Queue Length 95th (ft)	m14	164	m1	40	337	17	73	258		57	#382	
Internal Link Dist (ft)		362			338			263			95	
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	527	983	880	524	977	826	109	487		185	491	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.14	0.52	0.07	0.16	0.51	0.07	0.46	0.59		0.23	0.78	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 54 (49%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.86
 Intersection Signal Delay: 26.0
 Intersection LOS: C
 Intersection Capacity Utilization 78.6%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: East Avenue & Madison Street



Lanes, Volumes, Timings
 19: East Avenue & Washington Boulevard

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		↔			↔			↔			↔		
Traffic Volume (vph)	15	453	69	41	527	24	59	265	31	15	312	28	
Future Volume (vph)	15	453	69	41	527	24	59	265	31	15	312	28	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12	
Grade (%)		0%			0%			0%			0%		
Storage Length (ft)	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		0.99			1.00			0.99			0.99		
Frt		0.983			0.995			0.988			0.989		
Flt Protected		0.999			0.997			0.992			0.998		
Satd. Flow (prot)	0	1601	0	0	1539	0	0	1534	0	0	1610	0	
Flt Permitted		0.978			0.931			0.816			0.976		
Satd. Flow (perm)	0	1567	0	0	1436	0	0	1258	0	0	1573	0	
Right Turn on Red			Yes			Yes			Yes			Yes	
Satd. Flow (RTOR)		11			3			6			6		
Link Speed (mph)		30			30			25			25		
Link Distance (ft)		451			100			466			147		
Travel Time (s)		10.3			2.3			12.7			4.0		
Confl. Peds. (#/hr)	11		11	11		11	20		28	28		20	
Confl. Bikes (#/hr)		2						5			7		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	0%	0%	2%	0%	1%	0%	4%	1%	6%	0%	1%	0%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)		7			15			11			6		
Mid-Block Traffic (%)		0%			0%			0%			0%		
Shared Lane Traffic (%)													
Lane Group Flow (vph)	0	583	0	0	644	0	0	386	0	0	385	0	
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA		
Protected Phases		2			6			8			4		
Permitted Phases	2			6			8			4			
Detector Phase	2	2		6	6		8	8		4	4		
Switch Phase													
Minimum Initial (s)	15.0	15.0		15.0	15.0		8.0	8.0		8.0	8.0		
Minimum Split (s)	31.0	31.0		31.0	31.0		31.0	31.0		31.0	31.0		
Total Split (s)	49.0	49.0		49.0	49.0		41.0	41.0		41.0	41.0		
Total Split (%)	54.4%	54.4%		54.4%	54.4%		45.6%	45.6%		45.6%	45.6%		
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5		
All-Red Time (s)	1.5	1.5		1.5	1.5		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-Max	C-Max		C-Max	C-Max		None	None		None	None		
Act Effect Green (s)		48.0			48.0			30.0			30.0		
Actuated g/C Ratio		0.53			0.53			0.33			0.33		

No Build Evening Peak Hour
 Pete's Fresh Market

Synchro 10 Report

Lanes, Volumes, Timings
 19: East Avenue & Washington Boulevard

12/09/2020

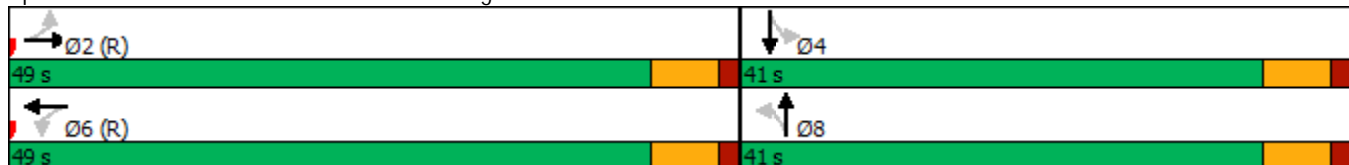


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		0.69			0.84			0.91				0.73
Control Delay		34.6			31.9			55.0				34.0
Queue Delay		0.0			0.0			0.0				0.0
Total Delay		34.6			31.9			55.0				34.0
LOS		C			C			E				C
Approach Delay		34.6			31.9			55.0				34.0
Approach LOS		C			C			E				C
Queue Length 50th (ft)		341			303			200				183
Queue Length 95th (ft)		m408			#568			#339				269
Internal Link Dist (ft)		371			20			386				67
Turn Bay Length (ft)												
Base Capacity (vph)		841			767			492				615
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		0.69			0.84			0.78				0.63

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 58 (64%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 37.5
 Intersection LOS: D
 Intersection Capacity Utilization 98.9%
 ICU Level of Service F
 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: 19: East Avenue & Washington Boulevard



HCM 6th TWSC

4: Euclid Avenue & Washington Boulevard

12/09/2020

Intersection												
Int Delay, s/veh	2.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	21	535	13	18	490	18	4	37	8	1	15	64
Future Vol, veh/h	21	535	13	18	490	18	4	37	8	1	15	64
Conflicting Peds, #/hr	6	0	17	17	0	6	11	0	4	4	0	11
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	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	0	0	1	0	0	4	0	0	13	0
Mvmt Flow	22	563	14	19	516	19	4	39	8	1	16	67

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	541	0	0	594	0	0	1247	1210	591	1212	1208	543
Stage 1	-	-	-	-	-	-	631	631	-	570	570	-
Stage 2	-	-	-	-	-	-	616	579	-	642	638	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.54	6.2	7.1	6.63	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.54	-	6.1	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.54	-	6.1	5.63	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.036	3.3	3.5	4.117	3.3
Pot Cap-1 Maneuver	1038	-	-	992	-	-	152	181	511	160	174	544
Stage 1	-	-	-	-	-	-	472	471	-	510	488	-
Stage 2	-	-	-	-	-	-	481	497	-	466	454	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1032	-	-	976	-	-	114	167	501	122	160	535
Mov Cap-2 Maneuver	-	-	-	-	-	-	114	167	-	122	160	-
Stage 1	-	-	-	-	-	-	450	449	-	491	471	-
Stage 2	-	-	-	-	-	-	391	480	-	404	433	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.3			32.8			18		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	180	1032	-	-	976	-	-	361
HCM Lane V/C Ratio	0.287	0.021	-	-	0.019	-	-	0.233
HCM Control Delay (s)	32.8	8.6	0	-	8.8	0	-	18
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0.1	-	-	0.9

HCM 6th TWSC
5: Wesley Avenue & Washington Boulevard

12/09/2020

Intersection												
Int Delay, s/veh	2.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	17	514	13	16	495	10	12	30	20	2	22	19
Future Vol, veh/h	17	514	13	16	495	10	12	30	20	2	22	19
Conflicting Peds, #/hr	14	0	0	0	0	14	7	0	1	1	0	7
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	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	18	541	14	17	521	11	13	32	21	2	23	20

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	546	0	0	555	0	0	1173	1164	549	1187	1166	548
Stage 1	-	-	-	-	-	-	584	584	-	575	575	-
Stage 2	-	-	-	-	-	-	589	580	-	612	591	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1033	-	-	1026	-	-	171	196	539	167	196	540
Stage 1	-	-	-	-	-	-	501	501	-	507	506	-
Stage 2	-	-	-	-	-	-	498	503	-	484	498	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1019	-	-	1026	-	-	142	184	538	132	184	529
Mov Cap-2 Maneuver	-	-	-	-	-	-	142	184	-	132	184	-
Stage 1	-	-	-	-	-	-	488	488	-	487	487	-
Stage 2	-	-	-	-	-	-	442	484	-	423	485	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.3			28.4			22.4		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	218	1019	-	-	1026	-	-	252
HCM Lane V/C Ratio	0.299	0.018	-	-	0.016	-	-	0.18
HCM Control Delay (s)	28.4	8.6	0	-	8.6	0	-	22.4
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.2	0.1	-	-	0.1	-	-	0.6

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	679	12	5	657	14	6
Future Vol, veh/h	679	12	5	657	14	6
Conflicting Peds, #/hr	0	12	12	0	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	0	0
Mvmt Flow	738	13	5	714	15	7

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	763	0	1482
Stage 1	-	-	-	-	757
Stage 2	-	-	-	-	725
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	-	-	859	-	139
Stage 1	-	-	-	-	467
Stage 2	-	-	-	-	483
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	849	-	136
Mov Cap-2 Maneuver	-	-	-	-	277
Stage 1	-	-	-	-	462
Stage 2	-	-	-	-	480

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	17.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	306	-	-	849	-
HCM Lane V/C Ratio	0.071	-	-	0.006	-
HCM Control Delay (s)	17.7	-	-	9.3	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
7: Madison Street & Euclid Avenue

12/09/2020

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	30	655	624	18	7	38
Future Vol, veh/h	30	655	624	18	7	38
Conflicting Peds, #/hr	6	0	0	6	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	25	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	2	0	14	2
Mvmt Flow	33	712	678	20	8	41

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	704	0	-	0	1473 694
Stage 1	-	-	-	-	694 -
Stage 2	-	-	-	-	779 -
Critical Hdwy	4.1	-	-	-	6.54 6.22
Critical Hdwy Stg 1	-	-	-	-	5.54 -
Critical Hdwy Stg 2	-	-	-	-	5.54 -
Follow-up Hdwy	2.2	-	-	-	3.626 3.318
Pot Cap-1 Maneuver	903	-	-	-	131 443
Stage 1	-	-	-	-	474 -
Stage 2	-	-	-	-	432 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	898	-	-	-	125 440
Mov Cap-2 Maneuver	-	-	-	-	258 -
Stage 1	-	-	-	-	454 -
Stage 2	-	-	-	-	429 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	15.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	898	-	-	-	396
HCM Lane V/C Ratio	0.036	-	-	-	0.124
HCM Control Delay (s)	9.2	-	-	-	15.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

HCM 6th TWSC
8: Wesley Avenue & Madison Street

12/09/2020

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	659	3	9	634	8	13
Future Vol, veh/h	659	3	9	634	8	13
Conflicting Peds, #/hr	0	12	12	0	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	0	2	0	0	0
Mvmt Flow	716	3	10	689	9	14

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	731	0
Stage 1	-	-	-	730
Stage 2	-	-	-	710
Critical Hdwy	-	-	4.12	-
Critical Hdwy Stg 1	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	5.4
Follow-up Hdwy	-	-	2.218	-
Pot Cap-1 Maneuver	-	-	873	-
Stage 1	-	-	-	481
Stage 2	-	-	-	491
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	863	-
Mov Cap-2 Maneuver	-	-	-	285
Stage 1	-	-	-	476
Stage 2	-	-	-	485

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	15.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	355	-	-	863	-
HCM Lane V/C Ratio	0.064	-	-	0.011	-
HCM Control Delay (s)	15.8	-	-	9.2	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
 9: Madison Street & Wesley Avenue

12/09/2020

Intersection						
Int Delay, s/veh	0.9					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	44	628	598	23	8	45
Future Vol, veh/h	44	628	598	23	8	45
Conflicting Peds, #/hr	6	0	0	6	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	48	683	650	25	9	49

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	681	0	-	0	1449 669
Stage 1	-	-	-	-	669 -
Stage 2	-	-	-	-	780 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	921	-	-	-	146 461
Stage 1	-	-	-	-	513 -
Stage 2	-	-	-	-	455 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	916	-	-	-	137 458
Mov Cap-2 Maneuver	-	-	-	-	276 -
Stage 1	-	-	-	-	483 -
Stage 2	-	-	-	-	452 -

Approach	EB	WB	SB
HCM Control Delay, s	0.6	0	15
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	916	-	-	-	417
HCM Lane V/C Ratio	0.052	-	-	-	0.138
HCM Control Delay (s)	9.1	-	-	-	15
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5

HCM 6th TWSC
10: Oak Park Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	6	1	0	0	43	583	3	0	652	35
Future Vol, veh/h	3	0	6	1	0	0	43	583	3	0	652	35
Conflicting Peds, #/hr	0	0	0	0	0	0	25	0	10	10	0	25
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	3	0	7	1	0	0	48	648	3	0	724	39

Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1189	1526	407	1118	1544	336	788	0	0	661	0	0
Stage 1	769	769	-	756	756	-	-	-	-	-	-	-
Stage 2	420	757	-	362	788	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	146	119	599	164	116	666	840	-	-	937	-	-
Stage 1	364	413	-	371	419	-	-	-	-	-	-	-
Stage 2	587	419	-	635	405	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	132	104	585	149	102	660	820	-	-	928	-	-
Mov Cap-2 Maneuver	132	104	-	149	102	-	-	-	-	-	-	-
Stage 1	323	403	-	334	377	-	-	-	-	-	-	-
Stage 2	533	377	-	628	395	-	-	-	-	-	-	-

Approach	EB		WB			NB			SB		
HCM Control Delay, s	18.7		29.3			1			0		
HCM LOS	C		D								

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	820	-	-	273	149	928	-	-
HCM Lane V/C Ratio	0.058	-	-	0.037	0.007	-	-	-
HCM Control Delay (s)	9.7	0.4	-	18.7	29.3	0	-	-
HCM Lane LOS	A	A	-	C	D	A	-	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0	0	-	-

HCM 6th TWSC
11: Euclid Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	0	1	0	1	2	3	45	0	2	44	0
Future Vol, veh/h	2	0	1	0	1	2	3	45	0	2	44	0
Conflicting Peds, #/hr	2	0	2	2	0	2	3	0	1	1	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	5	0
Mvmt Flow	2	0	1	0	1	2	3	47	0	2	46	0

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	110	107	51	107	107	50	49	0	0	48	0	0
Stage 1	53	53	-	54	54	-	-	-	-	-	-	-
Stage 2	57	54	-	53	53	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	873	787	1023	877	787	1024	1571	-	-	1572	-	-
Stage 1	965	855	-	963	854	-	-	-	-	-	-	-
Stage 2	960	854	-	965	855	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	864	781	1018	872	781	1021	1567	-	-	1571	-	-
Mov Cap-2 Maneuver	864	781	-	872	781	-	-	-	-	-	-	-
Stage 1	960	852	-	960	851	-	-	-	-	-	-	-
Stage 2	953	851	-	961	852	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9		8.9		0.5		0.3	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1567	-	-	910	926	1571	-
HCM Lane V/C Ratio	0.002	-	-	0.003	0.003	0.001	-
HCM Control Delay (s)	7.3	0	-	9	8.9	7.3	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-

HCM 6th TWSC
12: Wesley Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	0.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	1	5	0	2	5	60	2	1	47	3
Future Vol, veh/h	0	0	1	5	0	2	5	60	2	1	47	3
Conflicting Peds, #/hr	3	0	7	7	0	3	6	0	0	0	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	0	0	1	6	0	3	6	77	3	1	60	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	165	162	75	163	163	82	70	0	0	80	0	0
Stage 1	70	70	-	91	91	-	-	-	-	-	-	-
Stage 2	95	92	-	72	72	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	804	734	992	806	733	983	1544	-	-	1531	-	-
Stage 1	945	841	-	921	823	-	-	-	-	-	-	-
Stage 2	917	823	-	943	839	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	792	726	980	796	725	980	1535	-	-	1531	-	-
Mov Cap-2 Maneuver	792	726	-	796	725	-	-	-	-	-	-	-
Stage 1	936	835	-	917	820	-	-	-	-	-	-	-
Stage 2	908	820	-	935	833	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.7		9.3		0.5		0.1	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1535	-	-	980	841	1531	-
HCM Lane V/C Ratio	0.004	-	-	0.001	0.011	0.001	-
HCM Control Delay (s)	7.4	0	-	8.7	9.3	7.4	0
HCM Lane LOS	A	A	-	A	A	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-

HCM 6th TWSC
28: East Avenue & Alley

12/09/2020

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	1	1	3	0	0	0	1	311	19	15	414	1
Future Vol, veh/h	1	1	3	0	0	0	1	311	19	15	414	1
Conflicting Peds, #/hr	3	0	0	0	0	3	0	0	11	11	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	1	1	3	0	0	0	1	346	21	17	460	1

























Major/Minor	Minor2			Major1			Major2					
Conflicting Flow All	857	875	461				461	0	0	378	0	0
Stage 1	495	495	-				-	-	-	-	-	-
Stage 2	362	380	-				-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2				4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-				-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3				2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	330	290	605				1111	-	-	1192	-	-
Stage 1	617	549	-				-	-	-	-	-	-
Stage 2	709	617	-				-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	323	0	605				1111	-	-	1192	-	-
Mov Cap-2 Maneuver	323	0	-				-	-	-	-	-	-
Stage 1	616	0	-				-	-	-	-	-	-
Stage 2	696	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1111	-	-	497	1192	-	-
HCM Lane V/C Ratio	0.001	-	-	0.011	0.014	-	-
HCM Control Delay (s)	8.2	0	-	12.3	8.1	0	-
HCM Lane LOS	A	A	-	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	-	-

Lanes, Volumes, Timings
1: Oak Park Avenue & Madison Street

12/09/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	104	514	74	82	471	111	101	389	51	96	420	107
Future Volume (vph)	104	514	74	82	471	111	101	389	51	96	420	107
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		50	70		100	95		125	100		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	50			170			75			70		
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		0.98	1.00		0.97	0.99	1.00		0.99	0.99	
Frt			0.850			0.850		0.982			0.970	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1668	1654	1507	1668	1654	1507	1685	3075	0	1668	3016	0
Flt Permitted	0.292			0.285			0.314			0.395		
Satd. Flow (perm)	510	1654	1470	499	1654	1468	550	3075	0	687	3016	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		463			334			361			100	
Travel Time (s)		12.6			9.1			9.8			2.7	
Confl. Peds. (#/hr)	11		10	10		11	13		11	11		13
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	1%	1%	0%	0%	1%	0%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	107	530	76	85	486	114	104	454	0	99	543	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	27.0	27.0	9.5	27.0	27.0	9.5	33.0		9.5	28.0	
Total Split (s)	10.0	37.0	37.0	10.0	37.0	37.0	10.0	33.0		10.0	33.0	
Total Split (%)	11.1%	41.1%	41.1%	11.1%	41.1%	41.1%	11.1%	36.7%		11.1%	36.7%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	3.0	6.0		3.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Min	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	48.5	39.2	39.2	47.4	37.2	37.2	31.0	22.4		31.0	22.4	
Actuated g/C Ratio	0.54	0.44	0.44	0.53	0.41	0.41	0.34	0.25		0.34	0.25	

Lanes, Volumes, Timings
 1: Oak Park Avenue & Madison Street

12/09/2020

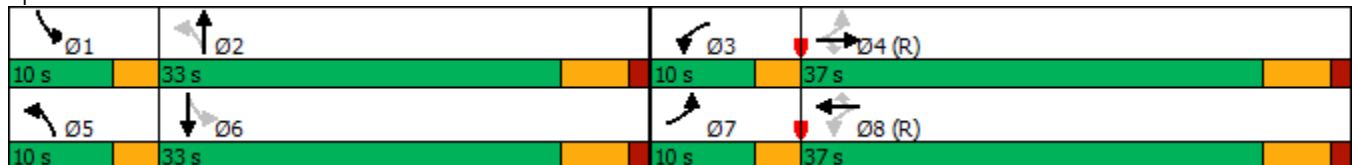


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.29	0.74	0.12	0.24	0.71	0.19	0.38	0.60		0.32	0.72	
Control Delay	13.3	32.7	20.0	8.1	28.8	16.0	21.0	32.7		19.7	36.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	13.3	32.7	20.0	8.1	28.8	16.0	21.0	32.7		19.7	36.6	
LOS	B	C	B	A	C	B	C	C		B	D	
Approach Delay		28.4			24.1			30.5			34.0	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	29	269	28	21	265	49	37	118		35	147	
Queue Length 95th (ft)	61	#488	62	m28	#442	80	65	157		63	192	
Internal Link Dist (ft)		383			254			281			20	
Turn Bay Length (ft)	150		50	70		100	95			100		
Base Capacity (vph)	373	720	640	361	683	606	277	922		312	904	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.29	0.74	0.12	0.24	0.71	0.19	0.38	0.49		0.32	0.60	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 58 (64%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 29.1 Intersection LOS: C
 Intersection Capacity Utilization 68.0% 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.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 1: Oak Park Avenue & Madison Street



Lanes, Volumes, Timings

2: Oak Park Avenue & Washington Bouelavrd

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	274	66	87	244	36	60	426	43	81	502	46
Future Volume (vph)	39	274	66	87	244	36	60	426	43	81	502	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		0	25		0	125		125	100		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			100			80		
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	1.00	
Frt		0.971			0.981			0.986			0.988	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1628	0	1805	1644	0	1805	3307	0	1787	3315	0
Flt Permitted	0.484			0.400			0.402			0.454		
Satd. Flow (perm)	891	1628	0	755	1644	0	755	3307	0	849	3315	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		669			438			470			402	
Travel Time (s)		15.2			10.0			12.8			11.0	
Confl. Peds. (#/hr)	3		7	7		3	14		6	6		14
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	1%	0%	0%	1%	3%	0%	1%	2%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	350	0	90	289	0	62	483	0	84	565	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	29.0	29.0		29.0	29.0		6.5	27.0		6.5	26.0	
Total Split (s)	38.0	38.0		38.0	38.0		7.0	35.0		7.0	35.0	
Total Split (%)	47.5%	47.5%		47.5%	47.5%		8.8%	43.8%		8.8%	43.8%	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		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)	6.0	6.0		6.0	6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	25.8	25.8		25.8	25.8		41.7	34.8		42.0	35.0	
Actuated g/C Ratio	0.32	0.32		0.32	0.32		0.52	0.44		0.52	0.44	

Lanes, Volumes, Timings

2: Oak Park Avenue & Washington Bouelavrd

12/09/2020

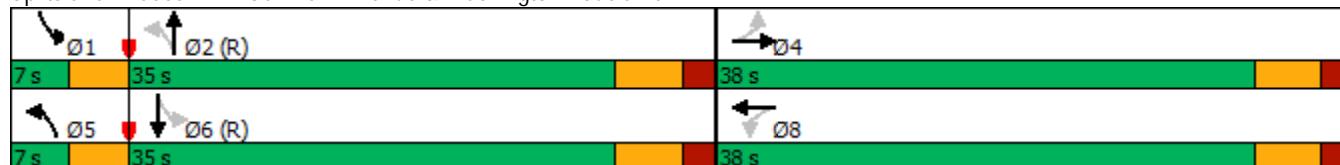


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.14	0.67		0.37	0.55		0.13	0.34		0.16	0.39	
Control Delay	18.2	29.2		23.8	25.4		10.7	17.5		11.0	18.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	18.2	29.2		23.8	25.4		10.7	17.5		11.0	18.0	
LOS	B	C		C	C		B	B		B	B	
Approach Delay		28.1			25.0			16.7			17.1	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	14	147		34	116		13	88		18	106	
Queue Length 95th (ft)	33	211		67	169		36	134		46	157	
Internal Link Dist (ft)		589			358			390			322	
Turn Bay Length (ft)	25			25			125			100		
Base Capacity (vph)	356	651		302	657		465	1440		512	1450	
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	0.11	0.54		0.30	0.44		0.13	0.34		0.16	0.39	

Intersection Summary























Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	80
Offset:	51 (64%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	20.7
Intersection LOS:	C
Intersection Capacity Utilization:	65.7%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 2: Oak Park Avenue & Washington Bouelavrd



Lanes, Volumes, Timings 3: East Avenue & Madison Street

12/09/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	574	38	72	573	22	10	37	31	44	113	52
Future Volume (vph)	32	574	38	72	573	22	10	37	31	44	113	52
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	12	10	12	12	12	15	8	12	15	8
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		30	105		105	25		0	25		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	80			130			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			0.93			0.91	0.98	0.98		0.99	0.98	
Frt			0.850			0.850		0.931			0.952	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1685	1755	1615	1685	1772	1615	1805	1577	0	1770	1695	0
Flt Permitted	0.347			0.314			0.541			0.709		
Satd. Flow (perm)	615	1755	1498	557	1772	1475	1006	1577	0	1304	1695	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			79			79		34	*1		27	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			398			216			489	
Travel Time (s)		12.5			10.9			5.9			13.3	
Confl. Peds. (#/hr)	25		20	20		25	18		9	9		18
Confl. Bikes (#/hr)			4			7			1			1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	0%	1%	0%	0%	16%	0%	2%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	624	41	78	623	24	11	74	0	48	180	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases	2		2	6		6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	9.5	24.0	24.0	9.5	24.0	24.0	35.0	35.0		35.0	35.0	
Total Split (s)	10.0	45.0	45.0	10.0	45.0	45.0	35.0	35.0		35.0	35.0	
Total Split (%)	11.1%	50.0%	50.0%	11.1%	50.0%	50.0%	38.9%	38.9%		38.9%	38.9%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	62.3	54.8	54.8	64.2	57.3	57.3	14.8	14.8		14.8	14.8	
Actuated g/C Ratio	0.69	0.61	0.61	0.71	0.64	0.64	0.16	0.16		0.16	0.16	

Lanes, Volumes, Timings

3: East Avenue & Madison Street

12/09/2020

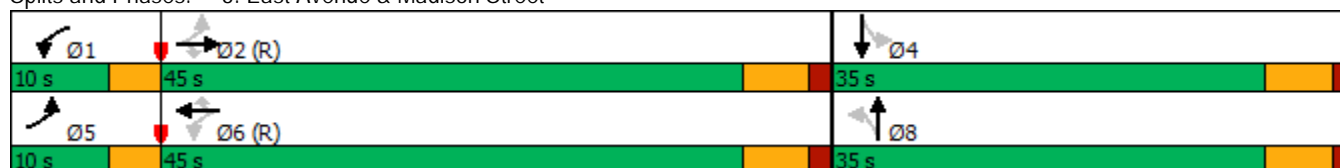


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.07	0.58	0.04	0.16	0.55	0.02	0.07	0.26		0.23	0.60	
Control Delay	2.3	7.4	0.1	5.0	13.6	0.0	30.1	21.1		33.5	37.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	2.3	7.4	0.1	5.0	13.6	0.0	30.1	21.1		33.5	37.3	
LOS	A	A	A	A	B	A	C	C		C	D	
Approach Delay		6.7			12.2			22.3			36.5	
Approach LOS		A			B			C			D	
Queue Length 50th (ft)	2	64	0	10	201	0	5	20		24	81	
Queue Length 95th (ft)	m5	107	m0	28	369	0	19	54		52	138	
Internal Link Dist (ft)		380			318			136			409	
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	506	1068	942	485	1127	967	324	531		420	564	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.07	0.58	0.04	0.16	0.55	0.02	0.03	0.14		0.11	0.32	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 6 (7%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.60
 Intersection Signal Delay: 13.7
 Intersection LOS: B
 Intersection Capacity Utilization 62.2%
 ICU Level of Service B
 Analysis Period (min) 15
 * User Entered Value
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: East Avenue & Madison Street



Intersection

Int Delay, s/veh 2.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	29	355	14	10	307	9	2	26	2	3	13	58
Future Vol, veh/h	29	355	14	10	307	9	2	26	2	3	13	58
Conflicting Peds, #/hr	1	0	3	3	0	1	0	0	6	6	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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	1	0	0	1	11	0	4	0	33	0	0
Mvmt Flow	31	378	15	11	327	10	2	28	2	3	14	62

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	338	0	0	396
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.13	-	-	4.1
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.227	-	-	2.2
Pot Cap-1 Maneuver	1216	-	-	1174
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1215	-	-	1171
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0.2	18.3	12.9
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	303	1215	-	-	1171	-	-	537
HCM Lane V/C Ratio	0.105	0.025	-	-	0.009	-	-	0.147
HCM Control Delay (s)	18.3	8	0	-	8.1	0	-	12.9
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.5

HCM 6th TWSC
5: Wesley Avenue & Washington Boulevard

12/09/2020

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	343	8	11	313	4	11	10	12	13	24	2
Future Vol, veh/h	9	343	8	11	313	4	11	10	12	13	24	2
Conflicting Peds, #/hr	4	0	2	2	0	4	1	0	2	2	0	1
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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	10	381	9	12	348	4	12	11	13	14	27	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	356	0	0	392	0	0	798	788	390	798	790	355
Stage 1	-	-	-	-	-	-	408	408	-	378	378	-
Stage 2	-	-	-	-	-	-	390	380	-	420	412	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1214	-	-	1178	-	-	306	326	663	306	325	693
Stage 1	-	-	-	-	-	-	624	600	-	648	619	-
Stage 2	-	-	-	-	-	-	638	617	-	615	598	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1209	-	-	1176	-	-	279	316	660	285	315	690
Mov Cap-2 Maneuver	-	-	-	-	-	-	279	316	-	285	315	-
Stage 1	-	-	-	-	-	-	616	592	-	638	608	-
Stage 2	-	-	-	-	-	-	600	607	-	584	590	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.2			0.3			15.8			18.3		
HCM LOS							C			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	370	1209	-	-	1176	-	-	313
HCM Lane V/C Ratio	0.099	0.008	-	-	0.01	-	-	0.138
HCM Control Delay (s)	15.8	8	0	-	8.1	0	-	18.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0	-	-	0	-	-	0.5

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	645	16	6	651	13	6
Future Vol, veh/h	645	16	6	651	13	6
Conflicting Peds, #/hr	0	10	10	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	686	17	6	693	14	6

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	713	0	1410
Stage 1	-	-	-	-	705
Stage 2	-	-	-	-	705
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	-	-	896	-	154
Stage 1	-	-	-	-	494
Stage 2	-	-	-	-	494
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	887	-	151
Mov Cap-2 Maneuver	-	-	-	-	293
Stage 1	-	-	-	-	489
Stage 2	-	-	-	-	491

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	16.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	327	-	-	887	-
HCM Lane V/C Ratio	0.062	-	-	0.007	-
HCM Control Delay (s)	16.7	-	-	9.1	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
7: Madison Street & Euclid Avenue

12/09/2020

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	633	642	13	20	15
Future Vol, veh/h	18	633	642	13	20	15
Conflicting Peds, #/hr	8	0	0	8	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	25	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	19	673	683	14	21	16

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	705	0	-	0	1409 698
Stage 1	-	-	-	-	698 -
Stage 2	-	-	-	-	711 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	902	-	-	-	154 444
Stage 1	-	-	-	-	497 -
Stage 2	-	-	-	-	490 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	895	-	-	-	148 441
Mov Cap-2 Maneuver	-	-	-	-	289 -
Stage 1	-	-	-	-	483 -
Stage 2	-	-	-	-	486 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	16.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	895	-	-	-	339
HCM Lane V/C Ratio	0.021	-	-	-	0.11
HCM Control Delay (s)	9.1	-	-	-	16.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

HCM 6th TWSC
8: Wesley Avenue & Madison Street

12/09/2020

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	648	5	11	647	8	14
Future Vol, veh/h	648	5	11	647	8	14
Conflicting Peds, #/hr	0	10	10	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	689	5	12	688	9	15

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	704	0
Stage 1	-	-	-	702
Stage 2	-	-	-	712
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	903	-
Stage 1	-	-	-	495
Stage 2	-	-	-	490
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	894	-
Mov Cap-2 Maneuver	-	-	-	290
Stage 1	-	-	-	490
Stage 2	-	-	-	484

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	15.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	369	-	-	894	-
HCM Lane V/C Ratio	0.063	-	-	0.013	-
HCM Control Delay (s)	15.4	-	-	9.1	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
 9: Madison Street & Wesley Avenue

12/09/2020

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	25	637	622	13	7	36
Future Vol, veh/h	25	637	622	13	7	36
Conflicting Peds, #/hr	8	0	0	8	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	27	678	662	14	7	38

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	684	0	-	0	1409 677
Stage 1	-	-	-	-	677 -
Stage 2	-	-	-	-	732 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	919	-	-	-	154 456
Stage 1	-	-	-	-	509 -
Stage 2	-	-	-	-	480 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	912	-	-	-	147 453
Mov Cap-2 Maneuver	-	-	-	-	287 -
Stage 1	-	-	-	-	490 -
Stage 2	-	-	-	-	476 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	14.8
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	912	-	-	-	414
HCM Lane V/C Ratio	0.029	-	-	-	0.11
HCM Control Delay (s)	9.1	-	-	-	14.8
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

HCM 6th TWSC
 10: Oak Park Avenue & Chase Bank/Alley

12/09/2020

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	12	0	0	1	81	522	1	0	611	44
Future Vol, veh/h	6	0	12	0	0	1	81	522	1	0	611	44
Conflicting Peds, #/hr	3	0	1	1	0	3	18	0	15	15	0	18
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	6	0	13	0	0	1	84	544	1	0	636	46

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1120	1405	678	1395	1428	291	700	0	0	560	0	0
Stage 1	677	677	-	728	728	-	-	-	-	-	-	-
Stage 2	443	728	-	667	700	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.2	7.3	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	174	141	456	111	136	712	906	-	-	1021	-	-
Stage 1	446	455	-	386	432	-	-	-	-	-	-	-
Stage 2	569	432	-	451	444	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	153	118	448	95	114	700	890	-	-	1006	-	-
Mov Cap-2 Maneuver	153	118	-	95	114	-	-	-	-	-	-	-
Stage 1	379	447	-	329	368	-	-	-	-	-	-	-
Stage 2	490	368	-	438	436	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	19.2		10.2		1.7		0	
HCM LOS	C		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	890	-	-	273	700	1006	-
HCM Lane V/C Ratio	0.095	-	-	0.069	0.001	-	-
HCM Control Delay (s)	9.5	0.5	-	19.2	10.2	0	-
HCM Lane LOS	A	A	-	C	B	A	-
HCM 95th %tile Q(veh)	0.3	-	-	0.2	0	0	-

HCM 6th TWSC
11: Euclid Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	0	0	0	0	30	1	2	33	2
Future Vol, veh/h	0	0	2	0	0	0	0	30	1	2	33	2
Conflicting Peds, #/hr	5	0	2	2	0	5	4	0	1	1	0	4
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	88	88	88	88	88	88	88	88	88	88	88	88
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	0	0
Mvmt Flow	0	0	2	0	0	0	0	34	1	2	38	2

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	87	83	45	82	84	41	44	0	0	36	0	0
Stage 1	47	47	-	36	36	-	-	-	-	-	-	-
Stage 2	40	36	-	46	48	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	904	811	1031	910	810	1036	1577	-	-	1588	-	-
Stage 1	972	860	-	985	869	-	-	-	-	-	-	-
Stage 2	980	869	-	973	859	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	896	806	1025	905	805	1030	1571	-	-	1586	-	-
Mov Cap-2 Maneuver	896	806	-	905	805	-	-	-	-	-	-	-
Stage 1	968	856	-	984	868	-	-	-	-	-	-	-
Stage 2	975	868	-	968	855	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	8.5		0		0		0.4	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1571	-	-	1025	-	1586	-	-
HCM Lane V/C Ratio	-	-	-	0.002	-	0.001	-	-
HCM Control Delay (s)	0	-	-	8.5	0	7.3	0	-
HCM Lane LOS	A	-	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	-	0	-	-

HCM 6th TWSC
12: Wesley Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	0	0	2	1	0	1	2	32	4	2	40	1
Future Vol, veh/h	0	0	2	1	0	1	2	32	4	2	40	1
Conflicting Peds, #/hr	1	0	0	0	0	1	4	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	3	0
Mvmt Flow	0	0	3	1	0	1	3	43	5	3	54	1

























Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	118	119	59	114	117	47	59	0	0	48	0	0
Stage 1	65	65	-	52	52	-	-	-	-	-	-	-
Stage 2	53	54	-	62	65	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	863	775	1012	868	777	1028	1558	-	-	1572	-	-
Stage 1	951	845	-	966	856	-	-	-	-	-	-	-
Stage 2	965	854	-	954	845	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	855	769	1008	863	771	1027	1552	-	-	1572	-	-
Mov Cap-2 Maneuver	855	769	-	863	771	-	-	-	-	-	-	-
Stage 1	945	840	-	964	854	-	-	-	-	-	-	-
Stage 2	961	852	-	950	840	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB			
HCM Control Delay, s	8.6		8.8		0.4		0.3			
HCM LOS	A		A							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1552	-	-	1008	938	1572	-	-
HCM Lane V/C Ratio	0.002	-	-	0.003	0.003	0.002	-	-
HCM Control Delay (s)	7.3	0	-	8.6	8.8	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-

Lanes, Volumes, Timings
1: Oak Park Avenue & Madison Street

12/09/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	128	549	58	60	517	111	87	466	56	92	416	151
Future Volume (vph)	128	549	58	60	517	111	87	466	56	92	416	151
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		50	70		100	95		125	100		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	50			170			75			70		
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			0.96			0.94	0.99	0.99		0.98	0.98	
Frt			0.850			0.850		0.984			0.960	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1636	1594	1449	1620	1603	1463	1636	2943	0	1685	2918	0
Flt Permitted	0.223			0.246			0.293			0.291		
Satd. Flow (perm)	384	1594	1398	419	1603	1374	497	2943	0	506	2918	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		463			254			361			100	
Travel Time (s)		12.6			6.9			9.8			2.7	
Confl. Peds. (#/hr)	22		14	14		22	15		25	25		15
Confl. Bikes (#/hr)			3			24						
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 (%)	3%	4%	4%	4%	3%	3%	3%	5%	6%	0%	3%	1%
Bus Blockages (#/hr)	0	2	0	0	3	0	0	4	0	0	4	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	133	572	60	63	539	116	91	543	0	96	590	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	3.5	3.5	3.0	15.0	15.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	27.0	27.0	9.5	27.0	27.0	9.5	33.0		9.5	28.0	
Total Split (s)	13.0	43.0	43.0	13.0	43.0	43.0	13.0	41.0		13.0	41.0	
Total Split (%)	11.8%	39.1%	39.1%	11.8%	39.1%	39.1%	11.8%	37.3%		11.8%	37.3%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	3.0	6.0		3.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Min	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	59.7	48.8	48.8	56.0	45.4	45.4	40.2	28.4		41.0	30.4	
Actuated g/C Ratio	0.54	0.44	0.44	0.51	0.41	0.41	0.37	0.26		0.37	0.28	

Lanes, Volumes, Timings
 1: Oak Park Avenue & Madison Street

12/09/2020

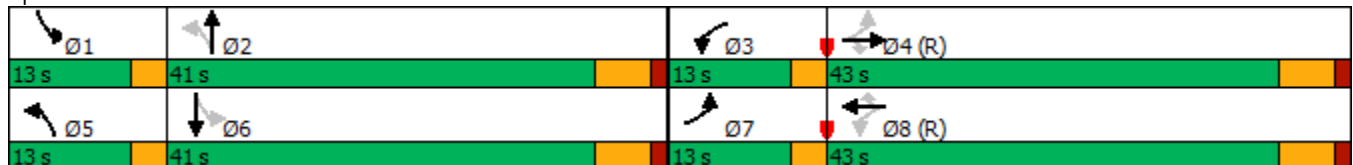


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.42	0.81	0.10	0.21	0.82	0.20	0.33	0.72		0.34	0.73	
Control Delay	18.0	40.3	22.8	8.2	34.6	16.7	23.0	42.3		23.1	42.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	18.0	40.3	22.8	8.2	34.6	16.7	23.0	42.3		23.1	42.0	
LOS	B	D	C	A	C	B	C	D		C	D	
Approach Delay		35.1			29.4			39.5			39.3	
Approach LOS		D			C			D			D	
Queue Length 50th (ft)	45	360	25	14	336	56	40	183		42	202	
Queue Length 95th (ft)	89	#661	61	m27	#611	m85	67	225		69	248	
Internal Link Dist (ft)		383			174			281			20	
Turn Bay Length (ft)	150		50	70		100	95			100		
Base Capacity (vph)	326	707	620	331	661	567	290	936		297	928	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.41	0.81	0.10	0.19	0.82	0.20	0.31	0.58		0.32	0.64	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 63 (57%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 35.7 Intersection LOS: D
 Intersection Capacity Utilization 73.9% 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: 1: Oak Park Avenue & Madison Street



Lanes, Volumes, Timings

2: Oak Park Avenue & Washington Boulevard

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	31	462	52	142	423	28	97	497	86	43	488	125
Future Volume (vph)	31	462	52	142	423	28	97	497	86	43	488	125
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		0	25		0	125		125	100		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			100			80		
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		0.99	1.00		0.99	0.99		0.98	0.99	
Frt		0.985			0.991			0.978			0.969	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1645	0	1787	1664	0	1787	3136	0	1770	3181	0
Flt Permitted	0.308			0.242			0.291			0.333		
Satd. Flow (perm)	581	1645	0	453	1664	0	539	3136	0	609	3181	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		669			438			470			183	
Travel Time (s)		15.2			10.0			12.8			5.0	
Confl. Peds. (#/hr)	19		19	19		19	20		24	24		20
Confl. Bikes (#/hr)												
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	6%	1%	1%	2%	1%	5%	3%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	565	0	156	496	0	107	641	0	47	673	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	29.0	29.0		29.0	29.0		6.5	27.0		6.5	26.0	
Total Split (s)	38.0	38.0		38.0	38.0		8.0	44.0		8.0	44.0	
Total Split (%)	42.2%	42.2%		42.2%	42.2%		8.9%	48.9%		8.9%	48.9%	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		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)	6.0	6.0		6.0	6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	38.1	38.1		38.1	38.1		40.3	35.1		39.6	33.5	
Actuated g/C Ratio	0.42	0.42		0.42	0.42		0.45	0.39		0.44	0.37	

Lanes, Volumes, Timings

2: Oak Park Avenue & Washington Boulevard

12/09/2020

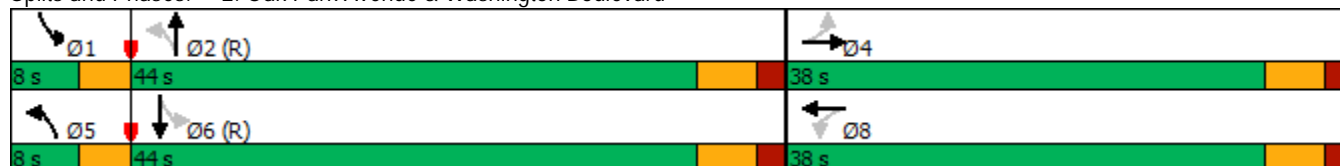


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.14	0.81		0.82	0.70		0.35	0.52		0.14	0.57	
Control Delay	20.9	36.5		60.6	30.3		15.3	22.5		12.0	24.2	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	20.9	36.5		60.6	30.3		15.3	22.5		12.0	24.2	
LOS	C	D		E	C		B	C		B	C	
Approach Delay		35.6			37.5			21.5			23.4	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	12	280		78	230		32	150		14	159	
Queue Length 95th (ft)	37	#524		#211	#429		54	184		28	194	
Internal Link Dist (ft)		589			358			390			103	
Turn Bay Length (ft)	25			25			125			100		
Base Capacity (vph)	246	696		191	704		303	1324		325	1343	
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	0.14	0.81		0.82	0.70		0.35	0.48		0.14	0.50	

Intersection Summary























Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 41 (46%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 28.9
 Intersection LOS: C
 Intersection Capacity Utilization 77.1%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 2: Oak Park Avenue & Washington Boulevard



Lanes, Volumes, Timings 3: East Avenue & Madison Street

12/09/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	468	33	65	536	53	74	325	89	77	150	86
Future Volume (vph)	150	468	33	65	536	53	74	325	89	77	150	86
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	12	10	12	12	12	15	8	12	15	8
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		30	105		105	25		0	25		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	80			130			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			0.94			0.49	0.96	0.97		0.96	0.97	
Frt			0.850			0.850		0.968			0.945	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1652	1724	1524	1685	1700	1495	1787	1653	0	1770	1673	0
Flt Permitted	0.233			0.342			0.464			0.186		
Satd. Flow (perm)	405	1724	1435	606	1700	727	834	1653	0	331	1673	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			64			64		13			28	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		445			188			373			184	
Travel Time (s)		12.1			5.1			10.2			5.0	
Confl. Peds. (#/hr)	169		12	12		169	39		67	67		39
Confl. Bikes (#/hr)			3			1						
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	3%	6%	0%	4%	8%	1%	7%	3%	2%	1%	4%
Bus Blockages (#/hr)	0	2	0	0	3	0	0	0	0	0	0	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	169	526	37	73	602	60	83	465	0	87	266	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	9.5	24.0	24.0	9.5	24.0	24.0	35.0	35.0		35.0	35.0	
Total Split (s)	13.0	56.0	56.0	13.0	56.0	56.0	41.0	41.0		41.0	41.0	
Total Split (%)	11.8%	50.9%	50.9%	11.8%	50.9%	50.9%	37.3%	37.3%		37.3%	37.3%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	65.6	55.6	55.6	62.3	52.3	52.3	33.2	33.2		33.2	33.2	
Actuated g/C Ratio	0.60	0.51	0.51	0.57	0.48	0.48	0.30	0.30		0.30	0.30	

Lanes, Volumes, Timings
 3: East Avenue & Madison Street

12/09/2020

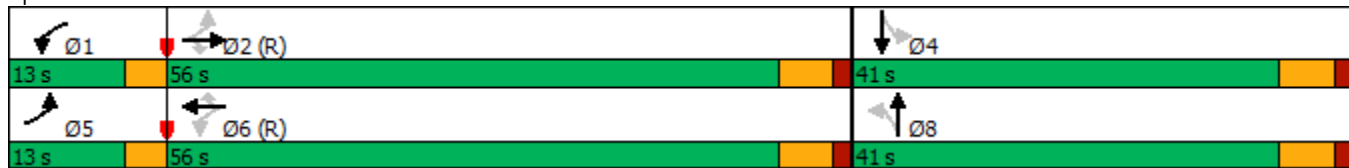


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.49	0.60	0.05	0.18	0.75	0.16	0.33	0.92		0.87	0.51	
Control Delay	12.5	13.0	0.1	10.4	31.3	5.1	33.3	60.1		99.6	31.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	12.5	13.0	0.1	10.4	31.3	5.1	33.3	60.1		99.6	31.5	
LOS	B	B	A	B	C	A	C	E		F	C	
Approach Delay		12.2			27.1			56.0			48.3	
Approach LOS		B			C			E			D	
Queue Length 50th (ft)	19	211	1	20	349	0	44	301		57	134	
Queue Length 95th (ft)	m26	m198	m0	40	493	22	88	#477		#152	211	
Internal Link Dist (ft)		365			108			293			104	
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	349	871	757	447	808	379	265	534		105	551	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.48	0.60	0.05	0.16	0.75	0.16	0.31	0.87		0.83	0.48	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 100 (91%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 32.3 Intersection LOS: C
 Intersection Capacity Utilization 85.9% ICU Level of Service E
 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: 3: East Avenue & Madison Street



Lanes, Volumes, Timings

30: East Avenue & Washington Boulevard

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (vph)	29	401	165	53	335	13	101	202	108	13	244	29
Future Volume (vph)	29	401	165	53	335	13	101	202	108	13	244	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	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		0.98			1.00			0.94			0.99	
Frt		0.963			0.996			0.965			0.986	
Flt Protected		0.998			0.993			0.988			0.998	
Satd. Flow (prot)	0	1542	0	0	1535	0	0	1419	0	0	1598	0
Flt Permitted		0.959			0.804			0.723			0.969	
Satd. Flow (perm)	0	1481	0	0	1242	0	0	1033	0	0	1547	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		27			2			21			7	
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		453			235			467			209	
Travel Time (s)		10.3			5.3			12.7			5.7	
Confl. Peds. (#/hr)	13		18	18		13	21		92	92		21
Confl. Bikes (#/hr)			1			2			29			1
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80	0.80
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	1%	0%	0%	1%	0%	1%	0%	5%	0%	1%	3%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		7			15			11			6	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	743	0	0	501	0	0	514	0	0	357	0
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2			6			8			4		
Detector Phase	2	2		6	6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		8.0	8.0		8.0	8.0	
Minimum Split (s)	31.0	31.0		31.0	31.0		31.0	31.0		31.0	31.0	
Total Split (s)	55.0	55.0		55.0	55.0		45.0	45.0		45.0	45.0	
Total Split (%)	55.0%	55.0%		55.0%	55.0%		45.0%	45.0%		45.0%	45.0%	
Yellow Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
All-Red Time (s)	1.5	1.5		1.5	1.5		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-Max	C-Max		C-Max	C-Max		None	None		None	None	
Act Effect Green (s)		49.0			49.0			39.0			39.0	
Actuated g/C Ratio		0.49			0.49			0.39			0.39	

Lanes, Volumes, Timings
 30: East Avenue & Washington Boulevard

12/09/2020

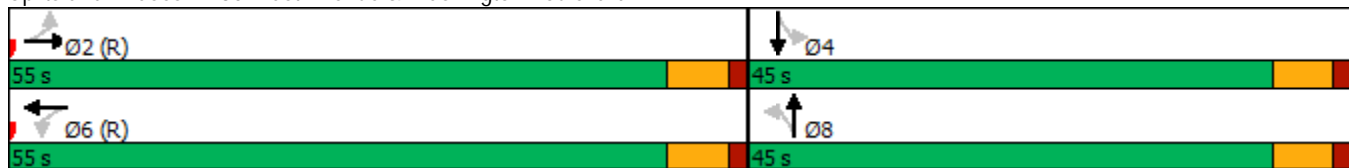


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio		1.01			0.82			1.24				0.59
Control Delay		60.5			35.1			155.0				28.5
Queue Delay		0.0			0.0			0.0				0.0
Total Delay		60.5			35.1			155.0				28.5
LOS		E			D			F				C
Approach Delay		60.5			35.1			155.0				28.5
Approach LOS		E			D			F				C
Queue Length 50th (ft)		-452			261			-402				173
Queue Length 95th (ft)		#580			337			#506				227
Internal Link Dist (ft)		373			155			387				129
Turn Bay Length (ft)												
Base Capacity (vph)		739			609			415				607
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		1.01			0.82			1.24				0.59

Intersection Summary

Area Type: Other
 Cycle Length: 100
 Actuated Cycle Length: 100
 Offset: 58 (58%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.24
 Intersection Signal Delay: 72.1
 Intersection LOS: E
 Intersection Capacity Utilization 95.7%
 ICU Level of Service F
 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.

Splits and Phases: 30: East Avenue & Washington Boulevard



HCM 6th TWSC
4: Euclid Avenue & Washington Boulevard

12/09/2020

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	69	522	1	1	520	21	1	0	1	1	0	73
Future Vol, veh/h	69	522	1	1	520	21	1	0	1	1	0	73
Conflicting Peds, #/hr	21	0	9	9	0	21	4	0	11	11	0	4
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	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	4	1	0	0	2	0	0	2	10	0	0	0
Mvmt Flow	82	621	1	1	619	25	1	0	1	1	0	87

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	665	0	0	631	0	0	1476	1462	642	1452	1450	657
Stage 1	-	-	-	-	-	-	795	795	-	655	655	-
Stage 2	-	-	-	-	-	-	681	667	-	797	795	-
Critical Hdwy	4.14	-	-	4.1	-	-	7.1	6.52	6.3	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.52	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.52	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.2	-	-	3.5	4.018	3.39	3.5	4	3.3
Pot Cap-1 Maneuver	915	-	-	961	-	-	105	129	460	110	132	468
Stage 1	-	-	-	-	-	-	384	399	-	458	466	-
Stage 2	-	-	-	-	-	-	444	457	-	383	402	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	897	-	-	953	-	-	75	108	451	95	110	457
Mov Cap-2 Maneuver	-	-	-	-	-	-	75	108	-	95	110	-
Stage 1	-	-	-	-	-	-	328	340	-	386	456	-
Stage 2	-	-	-	-	-	-	357	447	-	325	343	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	1.1			0			33.4			15.4		
HCM LOS							D			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	129	897	-	-	953	-	-	435
HCM Lane V/C Ratio	0.018	0.092	-	-	0.001	-	-	0.203
HCM Control Delay (s)	33.4	9.4	0	-	8.8	0	-	15.4
HCM Lane LOS	D	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.1	0.3	-	-	0	-	-	0.7

HCM 6th TWSC
5: Wesley Avenue & Washington Boulevard

12/09/2020

Intersection												
Int Delay, s/veh	4.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	12	511	0	0	480	2	15	45	11	5	0	46
Future Vol, veh/h	12	511	0	0	480	2	15	45	11	5	0	46
Conflicting Peds, #/hr	15	0	1	1	0	15	4	0	0	0	0	4
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	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	1	22	0	1	0	0	2	14	25	0	0
Mvmt Flow	15	647	0	0	608	3	19	57	14	6	0	58

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	626	0	-	-	-	0	1320	1303	647	1338	1302	629
Stage 1	-	-	-	-	-	-	677	677	-	625	625	-
Stage 2	-	-	-	-	-	-	643	626	-	713	677	-
Critical Hdwy	4.1	-	-	-	-	-	7.1	6.52	6.34	7.35	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.52	-	6.35	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.52	-	6.35	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4.018	3.426	3.725	4	3.3
Pot Cap-1 Maneuver	965	-	0	0	-	-	135	161	450	116	162	486
Stage 1	-	-	0	0	-	-	446	452	-	436	480	-
Stage 2	-	-	0	0	-	-	465	477	-	388	455	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	951	-	-	-	-	-	116	155	450	78	156	477
Mov Cap-2 Maneuver	-	-	-	-	-	-	116	155	-	78	156	-
Stage 1	-	-	-	-	-	-	435	441	-	419	473	-
Stage 2	-	-	-	-	-	-	407	470	-	319	444	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	53	19.2
HCM LOS			F	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	160	951	-	-	-	318
HCM Lane V/C Ratio	0.562	0.016	-	-	-	0.203
HCM Control Delay (s)	53	8.8	0	-	-	19.2
HCM Lane LOS	F	A	A	-	-	C
HCM 95th %tile Q(veh)	2.9	0	-	-	-	0.7

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	686	11	4	685	12	4
Future Vol, veh/h	686	11	4	685	12	4
Conflicting Peds, #/hr	0	6	6	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	730	12	4	729	13	4

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	748	0	1479
Stage 1	-	-	-	-	742
Stage 2	-	-	-	-	737
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	-	-	870	-	140
Stage 1	-	-	-	-	474
Stage 2	-	-	-	-	477
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	865	-	138
Mov Cap-2 Maneuver	-	-	-	-	279
Stage 1	-	-	-	-	471
Stage 2	-	-	-	-	475

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	17.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	304	-	-	865	-
HCM Lane V/C Ratio	0.056	-	-	0.005	-
HCM Control Delay (s)	17.5	-	-	9.2	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
8: Wesley Avenue & Madison Street

12/09/2020

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	687	3	6	681	8	13
Future Vol, veh/h	687	3	6	681	8	13
Conflicting Peds, #/hr	0	6	6	0	0	1
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	731	3	6	724	9	14

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	0	0	740	0
Stage 1	-	-	-	739
Stage 2	-	-	-	736
Critical Hdwy	-	-	4.1	-
Critical Hdwy Stg 1	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	5.4
Follow-up Hdwy	-	-	2.2	-
Pot Cap-1 Maneuver	-	-	876	-
Stage 1	-	-	-	476
Stage 2	-	-	-	477
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	-	-	871	-
Mov Cap-2 Maneuver	-	-	-	280
Stage 1	-	-	-	473
Stage 2	-	-	-	474

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	16
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	351	-	-	871	-
HCM Lane V/C Ratio	0.064	-	-	0.007	-
HCM Control Delay (s)	16	-	-	9.2	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
 9: Madison Street & Wesley Avenue

12/09/2020

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	50	650	674	22	1	13
Future Vol, veh/h	50	650	674	22	1	13
Conflicting Peds, #/hr	13	0	0	13	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	53	691	717	23	1	14

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	753	0	-	0	1540 742
Stage 1	-	-	-	-	742 -
Stage 2	-	-	-	-	798 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	866	-	-	-	128 419
Stage 1	-	-	-	-	474 -
Stage 2	-	-	-	-	447 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	855	-	-	-	117 414
Mov Cap-2 Maneuver	-	-	-	-	254 -
Stage 1	-	-	-	-	439 -
Stage 2	-	-	-	-	442 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	14.4
HCM LOS			B

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	855	-	-	-	396
HCM Lane V/C Ratio	0.062	-	-	-	0.038
HCM Control Delay (s)	9.5	-	-	-	14.4
HCM Lane LOS	A	-	-	-	B
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1

HCM 6th TWSC
10: Oak Park Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	0.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	0	5	0	5	25	672	0	28	654	0
Future Vol, veh/h	3	0	0	5	0	5	25	672	0	28	654	0
Conflicting Peds, #/hr	1	0	1	1	0	1	19	0	22	22	0	19
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	0	0	0	0	0	0	5	0	0	3	0
Mvmt Flow	3	0	0	5	0	5	26	707	0	29	688	0

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1172	1546	364	1184	1546	377	707	0	0	729	0	0
Stage 1	765	765	-	781	781	-	-	-	-	-	-	-
Stage 2	407	781	-	403	765	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	150	116	639	147	116	626	901	-	-	884	-	-
Stage 1	366	415	-	358	408	-	-	-	-	-	-	-
Stage 2	597	408	-	601	415	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	136	102	631	134	102	617	890	-	-	872	-	-
Mov Cap-2 Maneuver	136	102	-	134	102	-	-	-	-	-	-	-
Stage 1	344	388	-	336	383	-	-	-	-	-	-	-
Stage 2	563	383	-	568	388	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	32.1		22.2		0.5		0.6	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	890	-	-	136	220	872	-
HCM Lane V/C Ratio	0.03	-	-	0.023	0.048	0.034	-
HCM Control Delay (s)	9.2	0.2	-	32.1	22.2	9.3	0.2
HCM Lane LOS	A	A	-	D	C	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.1	0.1	-

HCM 6th TWSC
12: Wesley Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	4	0	8	6	1	2	4	65	3	0	0	0
Future Vol, veh/h	4	0	8	6	1	2	4	65	3	0	0	0
Conflicting Peds, #/hr	11	0	8	8	0	11	3	0	1	1	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	64	64	64	64	64	64	64	64	64	64	64	64
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	2	100
Mvmt Flow	6	0	13	9	2	3	6	102	5	0	0	0

Major/Minor	Minor2		Minor1			Major1			
Conflicting Flow All	133	123	11	133	121	117	3	0	0
Stage 1	3	3	-	118	118	-	-	-	-
Stage 2	130	120	-	15	3	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.1	5.5	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-
Pot Cap-1 Maneuver	844	771	1076	844	773	941	1632	-	-
Stage 1	-	-	-	891	802	-	-	-	-
Stage 2	878	800	-	-	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	836	766	1066	825	768	940	1629	-	-
Mov Cap-2 Maneuver	836	766	-	825	768	-	-	-	-
Stage 1	-	-	-	887	798	-	-	-	-
Stage 2	870	796	-	-	-	-	-	-	-

Approach	EB		WB		NB	
HCM Control Delay, s	8.8		9.4		0.4	
HCM LOS	A		A			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1
Capacity (veh/h)	1629	-	-	976 841
HCM Lane V/C Ratio	0.004	-	-	0.019 0.017
HCM Control Delay (s)	7.2	0	-	8.8 9.4
HCM Lane LOS	A	A	-	A A
HCM 95th %tile Q(veh)	0	-	-	0.1 0.1

HCM 6th TWSC
 13: Site Access & Oak Park Avenue

12/09/2020

Intersection						
Int Delay, s/veh	0.4					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	48	649	56	0	659
Future Vol, veh/h	0	48	649	56	0	659
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, %	0	0	5	0	0	3
Mvmt Flow	0	51	683	59	0	694

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	371	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	632	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	632	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	632
HCM Lane V/C Ratio	-	-	0.08
HCM Control Delay (s)	-	-	11.2
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.3

HCM 6th TWSC
 14: Madison Street & Site Access

12/09/2020

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	697	640	57	0	48
Future Vol, veh/h	0	697	640	57	0	48
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	3	3	0	0	0
Mvmt Flow	0	734	674	60	0	51

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	14.2
HCM LOS			B

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	440
HCM Lane V/C Ratio	-	-	-	0.115
HCM Control Delay (s)	-	-	-	14.2
HCM Lane LOS	-	-	-	B
HCM 95th %tile Q(veh)	-	-	-	0.4

HCM 6th TWSC
27: East Avenue & Alley/Fenwick Inbound Drive

12/09/2020

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕						↕			↕	
Traffic Vol, veh/h	2	1	6	0	0	0	0	252	276	174	307	3
Future Vol, veh/h	2	1	6	0	0	0	0	252	276	174	307	3
Conflicting Peds, #/hr	109	0	0	0	0	109	0	0	90	90	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	0	0	0	0	0	0	0	1	3	0	1	0
Mvmt Flow	3	1	8	0	0	0	0	327	358	226	399	4

























Major/Minor	Minor2			Major1			Major2					
Conflicting Flow All	1468	1628	401				403	0	0	775	0	0
Stage 1	853	853	-				-	-	-	-	-	-
Stage 2	615	775	-				-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2				4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-				-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-				-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3				2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	142	103	653				1167	-	-	850	-	-
Stage 1	421	378	-				-	-	-	-	-	-
Stage 2	543	411	-				-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	93	0	653				1167	-	-	850	-	-
Mov Cap-2 Maneuver	93	0	-				-	-	-	-	-	-
Stage 1	421	0	-				-	-	-	-	-	-
Stage 2	357	0	-				-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	19.4	0	3.9
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1167	-	-	261	850	-	-
HCM Lane V/C Ratio	-	-	-	0.045	0.266	-	-
HCM Control Delay (s)	0	-	-	19.4	10.8	0	-
HCM Lane LOS	A	-	-	C	B	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	1.1	-	-

Lanes, Volumes, Timings
1: Oak Park Avenue & Madison Street

12/09/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	167	495	96	90	497	97	107	477	61	109	474	153
Future Volume (vph)	167	495	96	90	497	97	107	477	61	109	474	153
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		50	70		100	95		125	100		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	50			170			75			70		
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		0.97	0.99		0.96	0.98	0.99		0.99	0.98	
Frt			0.850			0.850		0.983			0.963	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1668	1641	1507	1668	1625	1492	1668	3065	0	1685	2952	0
Flt Permitted	0.257			0.305			0.215			0.287		
Satd. Flow (perm)	449	1641	1455	533	1625	1438	369	3065	0	501	2952	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		463			244			361			100	
Travel Time (s)		12.6			6.7			9.8			2.7	
Confl. Peds. (#/hr)	15		14	14		15	28		19	19		28
Confl. Bikes (#/hr)			2			3			1			1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	1%	2%	1%	1%	1%	0%	0%	1%	0%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	4	0	0	4	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	172	510	99	93	512	100	110	555	0	112	647	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	3.0	15.0		3.0	15.0	
Minimum Split (s)	9.5	27.0	27.0	9.5	27.0	27.0	9.5	33.0		9.5	28.0	
Total Split (s)	13.0	49.0	49.0	13.0	49.0	49.0	13.0	35.0		13.0	35.0	
Total Split (%)	11.8%	44.5%	44.5%	11.8%	44.5%	44.5%	11.8%	31.8%		11.8%	31.8%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	3.0	6.0		3.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Min	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	59.4	48.5	48.5	56.8	45.5	45.5	40.1	27.9		40.0	27.8	
Actuated g/C Ratio	0.54	0.44	0.44	0.52	0.41	0.41	0.36	0.25		0.36	0.25	

Lanes, Volumes, Timings
 1: Oak Park Avenue & Madison Street

12/09/2020

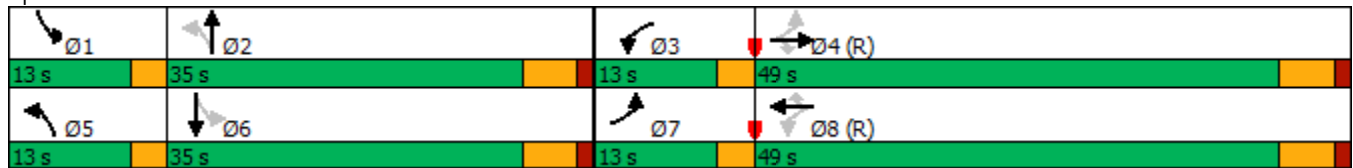


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.50	0.71	0.15	0.26	0.76	0.17	0.45	0.72		0.40	0.87	
Control Delay	18.0	33.5	21.6	12.2	36.8	21.4	27.5	43.1		25.7	52.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	18.0	33.5	21.6	12.2	36.8	21.4	27.5	43.1		25.7	52.5	
LOS	B	C	C	B	D	C	C	D		C	D	
Approach Delay		28.6			31.3			40.5			48.6	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	60	306	44	37	318	51	48	185		49	227	
Queue Length 95th (ft)	99	#469	84	m54	m#470	m91	87	248		88	#316	
Internal Link Dist (ft)		383			164			281			20	
Turn Bay Length (ft)	150		50	70		100	95			100		
Base Capacity (vph)	353	723	641	386	672	595	254	808		293	778	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.49	0.71	0.15	0.24	0.76	0.17	0.43	0.69		0.38	0.83	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 16 (15%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.87
 Intersection Signal Delay: 37.2 Intersection LOS: D
 Intersection Capacity Utilization 75.5% 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: 1: Oak Park Avenue & Madison Street



Lanes, Volumes, Timings

2: Oak Park Avenue & Washington Boulevard

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	500	60	125	462	30	89	490	117	53	579	120
Future Volume (vph)	32	500	60	125	462	30	89	490	117	53	579	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		0	25		0	125		125	100		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			100			80		
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	1.00		0.97	0.99		0.99	0.98	
Frt		0.984			0.991			0.971			0.974	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1805	1652	0	1805	1666	0	1805	3218	0	1805	3218	0
Flt Permitted	0.265			0.193			0.276			0.331		
Satd. Flow (perm)	501	1652	0	365	1666	0	511	3218	0	620	3218	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		669			438			470			183	
Travel Time (s)		15.2			10.0			12.8			5.0	
Confl. Peds. (#/hr)	17		19	19		17	39		19	19		39
Confl. Bikes (#/hr)												
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	0%	0%	1%	0%	0%	1%	2%	0%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	4	0	0	4	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	34	589	0	132	518	0	94	639	0	56	735	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	29.0	29.0		29.0	29.0		6.5	27.0		6.5	26.0	
Total Split (s)	37.0	37.0		37.0	37.0		8.0	45.0		8.0	45.0	
Total Split (%)	41.1%	41.1%		41.1%	41.1%		8.9%	50.0%		8.9%	50.0%	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		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)	6.0	6.0		6.0	6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	36.0	36.0		36.0	36.0		41.7	35.6		41.7	35.6	
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.46	0.40		0.46	0.40	

Lanes, Volumes, Timings

2: Oak Park Avenue & Washington Boulevard

12/09/2020

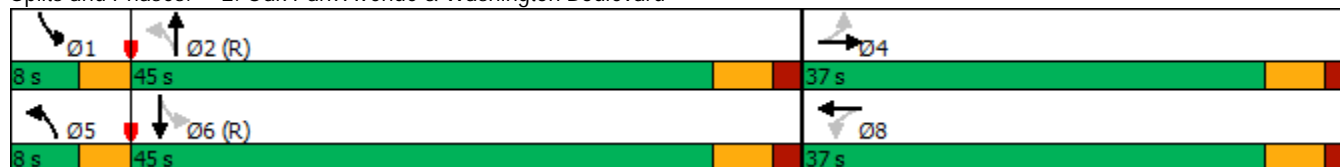


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.17	0.89		0.91	0.78		0.31	0.50		0.16	0.58	
Control Delay	23.1	45.6		75.5	31.2		13.6	21.7		11.3	23.0	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	23.1	45.6		75.5	31.2		13.6	21.7		11.3	23.0	
LOS	C	D		E	C		B	C		B	C	
Approach Delay		44.4			40.2			20.7			22.2	
Approach LOS		D			D			C			C	
Queue Length 50th (ft)	13	321		54	171		26	138		15	165	
Queue Length 95th (ft)	38	#565		m#129	m#401		47	178		31	210	
Internal Link Dist (ft)		589			358			390			103	
Turn Bay Length (ft)	25			25			125			100		
Base Capacity (vph)	200	660		145	666		301	1394		346	1394	
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	0.17	0.89		0.91	0.78		0.31	0.46		0.16	0.53	

Intersection Summary























Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 34 (38%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 65
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 30.9
 Intersection LOS: C
 Intersection Capacity Utilization 80.7%
 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: 2: Oak Park Avenue & Washington Boulevard



Lanes, Volumes, Timings
3: East Avenue & Madison Street

12/09/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	493	59	84	531	58	49	202	81	55	288	125
Future Volume (vph)	74	493	59	84	531	58	49	202	81	55	288	125
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	12	10	12	12	12	15	8	12	15	8
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		30	105		105	25		0	25		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	80			130			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			0.94	0.99		0.87	0.99	0.98		0.98	0.98	
Frt			0.850			0.850		0.957			0.955	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1668	1758	1615	1685	1741	1615	1805	1738	0	1770	1735	0
Flt Permitted	0.342			0.368			0.174			0.388		
Satd. Flow (perm)	600	1758	1523	646	1741	1406	326	1738	0	709	1735	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			64			64		18			20	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		442			418			343			175	
Travel Time (s)		12.1			11.4			9.4			4.8	
Confl. Peds. (#/hr)	36		12	12		36	18		18	18		18
Confl. Bikes (#/hr)			1			2						
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%	1%	0%	0%	2%	0%	0%	2%	0%	2%	1%	2%
Bus Blockages (#/hr)	0	2	0	0	2	0	0	0	0	0	0	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	503	60	86	542	59	50	289	0	56	422	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8				4
Permitted Phases	2		2	6		6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.5	15.0	15.0	3.5	15.0	15.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	9.5	24.0	24.0	9.5	24.0	24.0	35.0	35.0		35.0	35.0	
Total Split (s)	14.0	60.0	60.0	14.0	60.0	60.0	36.0	36.0		36.0	36.0	
Total Split (%)	12.7%	54.5%	54.5%	12.7%	54.5%	54.5%	32.7%	32.7%		32.7%	32.7%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	68.8	60.1	60.1	69.3	60.4	60.4	28.6	28.6		28.6	28.6	
Actuated g/C Ratio	0.63	0.55	0.55	0.63	0.55	0.55	0.26	0.26		0.26	0.26	

Lanes, Volumes, Timings
3: East Avenue & Madison Street

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.17	0.52	0.07	0.18	0.57	0.07	0.60	0.62		0.30	0.91	
Control Delay	4.4	9.4	0.2	8.3	20.6	3.4	65.7	39.8		37.2	61.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	4.4	9.4	0.2	8.3	20.6	3.4	65.7	39.8		37.2	61.7	
LOS	A	A	A	A	C	A	E	D		D	E	
Approach Delay		8.0			17.6			43.6			58.9	
Approach LOS		A			B			D			E	
Queue Length 50th (ft)	9	68	0	21	256	0	30	166		31	272	
Queue Length 95th (ft)	m14	156	m1	40	382	19	#89	258		69	#448	
Internal Link Dist (ft)		362			338			263			95	
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	489	961	861	517	955	800	88	487		193	487	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.16	0.52	0.07	0.17	0.57	0.07	0.57	0.59		0.29	0.87	

Intersection Summary

Area Type: Other
 Cycle Length: 110
 Actuated Cycle Length: 110
 Offset: 54 (49%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 75
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.91
 Intersection Signal Delay: 28.0 Intersection LOS: C
 Intersection Capacity Utilization 81.0% 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: 3: East Avenue & Madison Street



HCM 6th TWSC
4: Euclid Avenue & Washington Boulevard

12/09/2020

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	45	625	1	1	545	34	1	1	1	1	0	72
Future Vol, veh/h	45	625	1	1	545	34	1	1	1	1	0	72
Conflicting Peds, #/hr	6	0	17	17	0	6	11	0	4	4	0	11
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	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	0	0	1	0	0	4	0	0	13	0
Mvmt Flow	47	658	1	1	574	36	1	1	1	1	0	76

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	616	0	0	676	0	0	1413	1388	680	1358	1370	609
Stage 1	-	-	-	-	-	-	770	770	-	600	600	-
Stage 2	-	-	-	-	-	-	643	618	-	758	770	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.54	6.2	7.1	6.63	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.54	-	6.1	5.63	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.54	-	6.1	5.63	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4.036	3.3	3.5	4.117	3.3
Pot Cap-1 Maneuver	974	-	-	925	-	-	117	141	454	127	139	499
Stage 1	-	-	-	-	-	-	396	407	-	491	473	-
Stage 2	-	-	-	-	-	-	465	478	-	402	394	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	968	-	-	910	-	-	91	127	445	117	125	491
Mov Cap-2 Maneuver	-	-	-	-	-	-	91	127	-	117	125	-
Stage 1	-	-	-	-	-	-	360	370	-	451	469	-
Stage 2	-	-	-	-	-	-	388	474	-	368	358	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	0	30.9	14.2
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	142	968	-	-	910	-	-	470
HCM Lane V/C Ratio	0.022	0.049	-	-	0.001	-	-	0.163
HCM Control Delay (s)	30.9	8.9	0	-	9	0	-	14.2
HCM Lane LOS	D	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.1	0.2	-	-	0	-	-	0.6

HCM 6th TWSC
5: Wesley Avenue & Washington Boulevard

12/09/2020

Intersection												
Int Delay, s/veh	2.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	15	611	0	0	524	22	15	32	23	2	0	40
Future Vol, veh/h	15	611	0	0	524	22	15	32	23	2	0	40
Conflicting Peds, #/hr	14	0	0	0	0	14	7	0	1	1	0	7
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	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	16	643	0	0	552	23	16	34	24	2	0	42

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	589	0	-	-	-	0	1267	1264	644	1283	1253	585
Stage 1	-	-	-	-	-	-	675	675	-	578	578	-
Stage 2	-	-	-	-	-	-	592	589	-	705	675	-
Critical Hdwy	4.1	-	-	-	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	996	-	0	0	-	-	147	171	476	143	174	515
Stage 1	-	-	0	0	-	-	447	456	-	505	504	-
Stage 2	-	-	0	0	-	-	496	499	-	430	456	-
Platoon blocked, %		-			-	-						
Mov Cap-1 Maneuver	983	-	-	-	-	-	131	165	476	111	167	505
Mov Cap-2 Maneuver	-	-	-	-	-	-	131	165	-	111	167	-
Stage 1	-	-	-	-	-	-	436	445	-	486	497	-
Stage 2	-	-	-	-	-	-	452	493	-	367	445	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	34	14.3
HCM LOS			D	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	196	983	-	-	-	432
HCM Lane V/C Ratio	0.376	0.016	-	-	-	0.102
HCM Control Delay (s)	34	8.7	0	-	-	14.3
HCM Lane LOS	D	A	A	-	-	B
HCM 95th %tile Q(veh)	1.6	0	-	-	-	0.3

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	653	12	5	675	14	6
Future Vol, veh/h	653	12	5	675	14	6
Conflicting Peds, #/hr	0	12	12	0	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	0	0
Mvmt Flow	710	13	5	734	15	7

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	735	0	1474 731
Stage 1	-	-	-	-	729 -
Stage 2	-	-	-	-	745 -
Critical Hdwy	-	-	4.1	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	-	-	2.2	-	3.5 3.3
Pot Cap-1 Maneuver	-	-	879	-	141 425
Stage 1	-	-	-	-	481 -
Stage 2	-	-	-	-	473 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	869	-	138 419
Mov Cap-2 Maneuver	-	-	-	-	279 -
Stage 1	-	-	-	-	476 -
Stage 2	-	-	-	-	470 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	17.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	310	-	-	869	-
HCM Lane V/C Ratio	0.07	-	-	0.006	-
HCM Control Delay (s)	17.5	-	-	9.2	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
 8: Wesley Avenue & Madison Street

12/09/2020

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	656	3	9	672	8	13
Future Vol, veh/h	656	3	9	672	8	13
Conflicting Peds, #/hr	0	12	12	0	1	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	1	0	2	0	0	0
Mvmt Flow	713	3	10	730	9	14

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	728	0	1478
Stage 1	-	-	-	-	727
Stage 2	-	-	-	-	751
Critical Hdwy	-	-	4.12	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.218	-	3.5
Pot Cap-1 Maneuver	-	-	876	-	140
Stage 1	-	-	-	-	482
Stage 2	-	-	-	-	470
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	866	-	137
Mov Cap-2 Maneuver	-	-	-	-	277
Stage 1	-	-	-	-	477
Stage 2	-	-	-	-	464

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	16
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	351	-	-	866	-
HCM Lane V/C Ratio	0.065	-	-	0.011	-
HCM Control Delay (s)	16	-	-	9.2	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
 9: Madison Street & Wesley Avenue

12/09/2020

Intersection						
Int Delay, s/veh	0.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	47	622	676	29	4	5
Future Vol, veh/h	47	622	676	29	4	5
Conflicting Peds, #/hr	12	0	0	12	1	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	51	676	735	32	4	5

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	779	0	-	0	1542 763
Stage 1	-	-	-	-	763 -
Stage 2	-	-	-	-	779 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	847	-	-	-	128 408
Stage 1	-	-	-	-	464 -
Stage 2	-	-	-	-	456 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	837	-	-	-	118 403
Mov Cap-2 Maneuver	-	-	-	-	255 -
Stage 1	-	-	-	-	431 -
Stage 2	-	-	-	-	451 -

Approach	EB	WB	SB
HCM Control Delay, s	0.7	0	16.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	837	-	-	-	320
HCM Lane V/C Ratio	0.061	-	-	-	0.031
HCM Control Delay (s)	9.6	-	-	-	16.6
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.1

HCM 6th TWSC
10: Oak Park Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	0	6	2	0	2	43	691	3	1	728	35
Future Vol, veh/h	3	0	6	2	0	2	43	691	3	1	728	35
Conflicting Peds, #/hr	0	0	0	0	0	0	25	0	14	14	0	25
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	3	0	7	2	0	2	48	768	3	1	809	39

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1336	1737	449	1287	1755	400	873	0	0	785	0	0
Stage 1	856	856	-	880	880	-	-	-	-	-	-	-
Stage 2	480	881	-	407	875	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.5	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	114	88	563	123	86	605	781	-	-	843	-	-
Stage 1	323	377	-	312	368	-	-	-	-	-	-	-
Stage 2	541	367	-	597	370	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	102	76	554	110	75	600	769	-	-	836	-	-
Mov Cap-2 Maneuver	102	76	-	110	75	-	-	-	-	-	-	-
Stage 1	283	370	-	275	325	-	-	-	-	-	-	-
Stage 2	480	324	-	589	363	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	21.8		24.8		1.1		0	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	769	-	-	224	186	836	-
HCM Lane V/C Ratio	0.062	-	-	0.045	0.024	0.001	-
HCM Control Delay (s)	10	0.5	-	21.8	24.8	9.3	0
HCM Lane LOS	A	A	-	C	C	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	0.1	0	-

HCM 6th TWSC
12: Wesley Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	1.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	2	0	1	5	0	2	8	66	2	0	0	0
Future Vol, veh/h	2	0	1	5	0	2	8	66	2	0	0	0
Conflicting Peds, #/hr	3	0	7	7	0	3	6	0	0	0	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	0	0	0	0	0	0	0	0	0
Mvmt Flow	3	0	1	6	0	3	10	85	3	0	0	0

Major/Minor	Minor2		Minor1			Major1			
Conflicting Flow All	117	114	13	115	113	90	6	0	0
Stage 1	6	6	-	107	107	-	-	-	-
Stage 2	111	108	-	8	6	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.1	5.5	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-
Pot Cap-1 Maneuver	864	780	1073	867	781	973	1628	-	-
Stage 1	-	-	-	903	811	-	-	-	-
Stage 2	899	810	-	-	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	854	772	1062	857	773	973	1622	-	-
Mov Cap-2 Maneuver	854	772	-	857	773	-	-	-	-
Stage 1	-	-	-	898	806	-	-	-	-
Stage 2	891	805	-	-	-	-	-	-	-

Approach	EB		WB		NB	
HCM Control Delay, s	9		9.1		0.8	
HCM LOS	A		A			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1
Capacity (veh/h)	1622	-	-	914 887
HCM Lane V/C Ratio	0.006	-	-	0.004 0.01
HCM Control Delay (s)	7.2	0	-	9 9.1
HCM Lane LOS	A	A	-	A A
HCM 95th %tile Q(veh)	0	-	-	0 0

HCM 6th TWSC
 13: Site Access & Oak Park Avenue

12/09/2020

Intersection						
Int Delay, s/veh	0.9					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	112	625	116	0	736
Future Vol, veh/h	0	112	625	116	0	736
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, %	0	0	1	0	0	1
Mvmt Flow	0	118	658	122	0	775

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	390	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	614	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	614	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	614
HCM Lane V/C Ratio	-	-	0.192
HCM Control Delay (s)	-	-	12.3
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.7

HCM 6th TWSC
 14: Madison Street & Site Access

12/09/2020

Intersection						
Int Delay, s/veh	1.2					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	665	572	117	0	112
Future Vol, veh/h	0	665	572	117	0	112
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	92	92	92	92	92	92
Heavy Vehicles, %	0	1	0	0	0	0
Mvmt Flow	0	723	622	127	0	122

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	15.9
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	451
HCM Lane V/C Ratio	-	-	-	0.27
HCM Control Delay (s)	-	-	-	15.9
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	1.1

HCM 6th TWSC
 31: East Avenue & Alley/Fenwick Inbound Drive

12/09/2020

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔						↔			↔	
Traffic Vol, veh/h	1	1	3	0	0	0	1	314	19	15	465	1
Future Vol, veh/h	1	1	3	0	0	0	1	314	19	15	465	1
Conflicting Peds, #/hr	3	0	0	3	0	0	0	0	11	11	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	16979	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	1	1	3	0	0	0	1	349	21	17	517	1

























Major/Minor	Minor2			Major1			Major2				
Conflicting Flow All	917	935	518			518	0	0	381	0	0
Stage 1	552	552	-			-	-	-	-	-	-
Stage 2	365	383	-			-	-	-	-	-	-
Critical Hdwy	6.4	6.5	6.2			4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	5.4	5.5	-			-	-	-	-	-	-
Critical Hdwy Stg 2	5.4	5.5	-			-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3			2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	304	267	562			1058	-	-	1189	-	-
Stage 1	581	518	-			-	-	-	-	-	-
Stage 2	707	616	-			-	-	-	-	-	-
Platoon blocked, %							-	-	-	-	-
Mov Cap-1 Maneuver	298	0	562			1058	-	-	1189	-	-
Mov Cap-2 Maneuver	298	0	-			-	-	-	-	-	-
Stage 1	580	0	-			-	-	-	-	-	-
Stage 2	693	0	-			-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.9	0	0.3
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	SBL	SBT	SBR
Capacity (veh/h)	1058	-	-	460	1189	-	-
HCM Lane V/C Ratio	0.001	-	-	0.012	0.014	-	-
HCM Control Delay (s)	8.4	0	-	12.9	8.1	0	-
HCM Lane LOS	A	A	-	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0	-	-

Lanes, Volumes, Timings
1: Oak Park Avenue & Madison Street

12/09/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	177	497	74	117	492	113	101	431	51	104	425	146
Future Volume (vph)	177	497	74	117	492	113	101	431	51	104	425	146
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	10	10	10	10	10	10	10	10	10	10
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		50	70		100	95		125	100		0
Storage Lanes	1		1	1		1	1		1	1		0
Taper Length (ft)	50			170			75			70		
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		0.98	1.00		0.96	0.99	1.00		0.99	0.99	
Frt			0.850			0.850		0.984			0.962	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1668	1654	1507	1668	1654	1507	1685	3080	0	1668	2983	0
Flt Permitted	0.256			0.270			0.287			0.365		
Satd. Flow (perm)	446	1654	1470	472	1654	1453	503	3080	0	633	2983	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		463			257			361			100	
Travel Time (s)		12.6			7.0			9.8			2.7	
Confl. Peds. (#/hr)	19		10	10		19	13		16	16		13
Confl. Bikes (#/hr)												1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	1%	1%	0%	0%	1%	0%	1%	1%	1%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	182	512	76	121	507	116	104	497	0	107	589	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases	4		4	8		8	2			6		
Detector Phase	7	4	4	3	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	3.5	3.5	3.0	3.5		3.0	15.0	
Minimum Split (s)	9.5	27.0	27.0	9.5	27.0	27.0	9.5	33.0		9.5	28.0	
Total Split (s)	10.0	37.0	37.0	10.0	37.0	37.0	10.0	33.0		10.0	33.0	
Total Split (%)	11.1%	41.1%	41.1%	11.1%	41.1%	41.1%	11.1%	36.7%		11.1%	36.7%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.0	6.0	6.0	3.0	6.0	6.0	3.0	6.0		3.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		Yes	Yes	
Recall Mode	Min	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	47.1	36.0	36.0	45.6	35.3	35.3	32.2	23.6		32.2	23.6	
Actuated g/C Ratio	0.52	0.40	0.40	0.51	0.39	0.39	0.36	0.26		0.36	0.26	

Lanes, Volumes, Timings
 1: Oak Park Avenue & Madison Street

12/09/2020

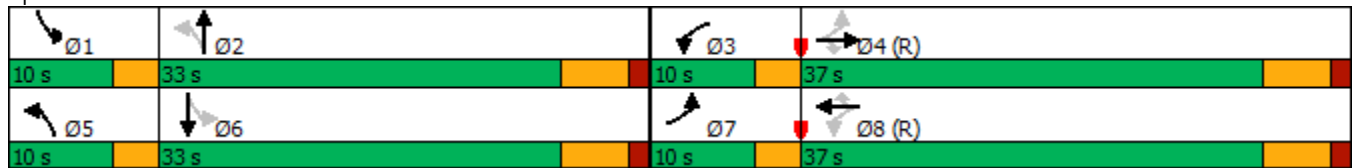


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.53	0.77	0.13	0.36	0.78	0.20	0.39	0.62		0.35	0.75	
Control Delay	18.9	35.7	20.7	10.6	33.6	17.3	20.6	32.3		19.7	36.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	18.9	35.7	20.7	10.6	33.6	17.3	20.6	32.3		19.7	36.8	
LOS	B	D	C	B	C	B	C	C		B	D	
Approach Delay		30.3			27.3			30.3			34.2	
Approach LOS		C			C			C			C	
Queue Length 50th (ft)	53	269	29	30	290	52	36	128		37	160	
Queue Length 95th (ft)	98	#463	62	m37	#470	m68	65	173		67	211	
Internal Link Dist (ft)		383			177			281			20	
Turn Bay Length (ft)	150		50	70		100	95			100		
Base Capacity (vph)	343	661	588	340	648	569	272	924		307	894	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.53	0.77	0.13	0.36	0.78	0.20	0.38	0.54		0.35	0.66	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 58 (64%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 30.5 Intersection LOS: C
 Intersection Capacity Utilization 74.2% 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: 1: Oak Park Avenue & Madison Street



Lanes, Volumes, Timings

2: Oak Park Avenue & Washington Boulevard

12/09/2020



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	39	295	72	124	243	35	81	447	112	89	511	46
Future Volume (vph)	39	295	72	124	243	35	81	447	112	89	511	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	25		0	25		0	125		125	100		0
Storage Lanes	1		0	1		0	1		1	1		0
Taper Length (ft)	25			25			100			80		
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	0.99		0.99	1.00	
Frt		0.971			0.981			0.970			0.988	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1752	1627	0	1805	1644	0	1805	3235	0	1787	3316	0
Flt Permitted	0.496			0.375			0.392			0.388		
Satd. Flow (perm)	913	1627	0	707	1644	0	736	3235	0	725	3316	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			25			25	
Link Distance (ft)		669			438			470			402	
Travel Time (s)		15.2			10.0			12.8			11.0	
Confl. Peds. (#/hr)	3		9	9		3	14		9	9		14
Confl. Bikes (#/hr)												
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	1%	0%	0%	1%	3%	0%	1%	2%	1%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	3	0	0	3	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	40	378	0	128	287	0	84	576	0	92	574	0
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		4			8		5	2		1	6	
Permitted Phases	4			8			2			6		
Detector Phase	4	4		8	8		5	2		1	6	
Switch Phase												
Minimum Initial (s)	8.0	8.0		8.0	8.0		3.0	15.0		3.0	15.0	
Minimum Split (s)	29.0	29.0		29.0	29.0		6.5	27.0		6.5	26.0	
Total Split (s)	38.0	38.0		38.0	38.0		7.0	35.0		7.0	35.0	
Total Split (%)	47.5%	47.5%		47.5%	47.5%		8.8%	43.8%		8.8%	43.8%	
Yellow Time (s)	4.0	4.0		4.0	4.0		3.5	4.0		3.5	4.0	
All-Red Time (s)	2.0	2.0		2.0	2.0		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)	6.0	6.0		6.0	6.0		3.5	6.0		3.5	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	C-Min		None	C-Min	
Act Effect Green (s)	26.9	26.9		26.9	26.9		40.7	33.9		40.9	34.0	
Actuated g/C Ratio	0.34	0.34		0.34	0.34		0.51	0.42		0.51	0.42	

Lanes, Volumes, Timings
 2: Oak Park Avenue & Washington Boulevard

12/09/2020

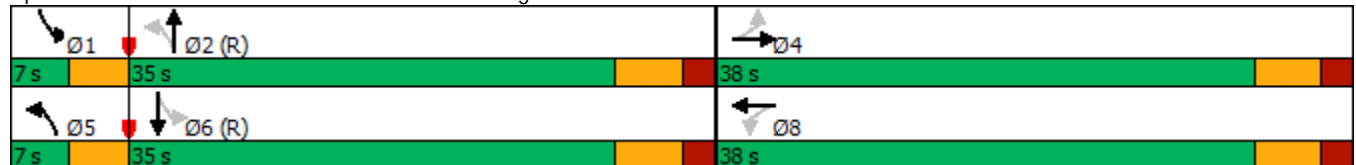


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.13	0.69		0.54	0.52		0.19	0.42		0.21	0.41	
Control Delay	17.6	29.4		29.5	24.1		11.6	19.0		11.8	18.7	
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	17.6	29.4		29.5	24.1		11.6	19.0		11.8	18.7	
LOS	B	C		C	C		B	B		B	B	
Approach Delay		28.3			25.8			18.0			17.8	
Approach LOS		C			C			B			B	
Queue Length 50th (ft)	13	159		50	112		19	114		21	112	
Queue Length 95th (ft)	32	232		98	168		45	162		49	161	
Internal Link Dist (ft)		589			358			390			322	
Turn Bay Length (ft)	25			25			125			100		
Base Capacity (vph)	365	650		282	657		447	1370		443	1407	
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	0.11	0.58		0.45	0.44		0.19	0.42		0.21	0.41	

Intersection Summary

Area Type:	Other
Cycle Length:	80
Actuated Cycle Length:	80
Offset:	51 (64%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	21.4
Intersection LOS:	C
Intersection Capacity Utilization:	67.7%
ICU Level of Service:	C
Analysis Period (min):	15

Splits and Phases: 2: Oak Park Avenue & Washington Boulevard



Lanes, Volumes, Timings
3: East Avenue & Madison Street

12/09/2020

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	561	38	72	628	25	10	37	31	60	113	93
Future Volume (vph)	32	561	38	72	628	25	10	37	31	60	113	93
Ideal Flow (vphpl)	1900	2000	1900	1900	2000	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	12	12	10	12	12	12	15	8	12	15	8
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	150		30	105		105	25		0	25		0
Storage Lanes	1		1	1		1	1		0	1		0
Taper Length (ft)	80			130			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			0.93			0.90	0.98	0.98		0.99	0.98	
Frt			0.850			0.850		0.931			0.932	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1685	1755	1615	1685	1772	1615	1805	1577	0	1770	1656	0
Flt Permitted	0.298			0.313			0.447			0.709		
Satd. Flow (perm)	528	1755	1498	555	1772	1459	830	1577	0	1304	1656	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			79			79		34			48	
Link Speed (mph)		25			25			25			25	
Link Distance (ft)		460			398			216			183	
Travel Time (s)		12.5			10.9			5.9			5.0	
Confl. Peds. (#/hr)	29		20	20		29	21		9	9		21
Confl. Bikes (#/hr)			4			7			1			1
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	2%	0%	0%	1%	0%	0%	16%	0%	2%	5%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)		1			1			1			1	
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	35	610	41	78	683	27	11	74	0	65	224	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases	5	2		1	6			8			4	
Permitted Phases	2		2	6		6	8			4		
Detector Phase	5	2	2	1	6	6	8	8		4	4	
Switch Phase												
Minimum Initial (s)	3.0	15.0	15.0	3.0	15.0	15.0	10.0	10.0		10.0	10.0	
Minimum Split (s)	9.5	24.0	24.0	9.5	24.0	24.0	35.0	35.0		35.0	35.0	
Total Split (s)	10.0	45.0	45.0	10.0	45.0	45.0	35.0	35.0		35.0	35.0	
Total Split (%)	11.1%	50.0%	50.0%	11.1%	50.0%	50.0%	38.9%	38.9%		38.9%	38.9%	
Yellow Time (s)	3.5	4.5	4.5	3.5	4.5	4.5	4.5	4.5		4.5	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	1.5	1.5		1.5	1.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	3.5	6.0	6.0	3.5	6.0	6.0	6.0	6.0		6.0	6.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	60.8	53.3	53.3	62.9	55.8	55.8	16.2	16.2		16.2	16.2	
Actuated g/C Ratio	0.68	0.59	0.59	0.70	0.62	0.62	0.18	0.18		0.18	0.18	

Lanes, Volumes, Timings

3: East Avenue & Madison Street

12/09/2020

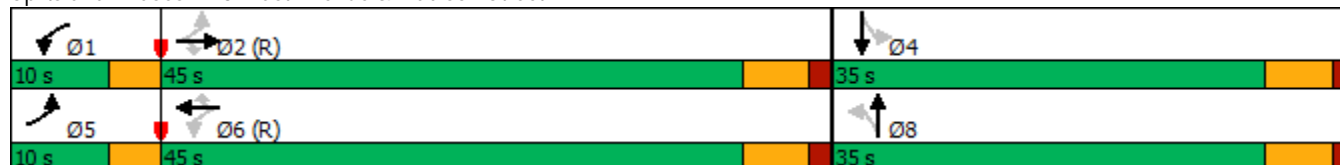


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
v/c Ratio	0.08	0.59	0.04	0.16	0.62	0.03	0.07	0.24		0.28	0.67	
Control Delay	2.7	8.1	0.1	5.7	16.4	0.0	28.8	19.7		33.0	35.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	2.7	8.1	0.1	5.7	16.4	0.0	28.8	19.7		33.0	35.9	
LOS	A	A	A	A	B	A	C	B		C	D	
Approach Delay		7.3			14.8			20.9			35.3	
Approach LOS		A			B			C			D	
Queue Length 50th (ft)	3	66	0	11	244	0	5	19		32	94	
Queue Length 95th (ft)	m5	107	m0	31	457	0	18	52		64	155	
Internal Link Dist (ft)		380			318			136			103	
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	443	1038	918	477	1098	934	267	531		420	566	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.08	0.59	0.04	0.16	0.62	0.03	0.04	0.14		0.15	0.40	

Intersection Summary

Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 6 (7%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.67
 Intersection Signal Delay: 15.5 Intersection LOS: B
 Intersection Capacity Utilization 66.5% ICU Level of Service C
 Analysis Period (min) 15
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: East Avenue & Madison Street



HCM 6th TWSC
4: Euclid Avenue & Washington Boulevard

12/09/2020

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	44	452	1	1	344	23	1	1	1	9	0	58
Future Vol, veh/h	44	452	1	1	344	23	1	1	1	9	0	58
Conflicting Peds, #/hr	1	0	3	3	0	1	0	0	6	6	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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	3	1	0	0	1	11	0	4	0	33	0	0
Mvmt Flow	47	481	1	1	366	24	1	1	1	10	0	62

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	391	0	0	485	0	0	990	972	491	964	960	379
Stage 1	-	-	-	-	-	-	579	579	-	381	381	-
Stage 2	-	-	-	-	-	-	411	393	-	583	579	-
Critical Hdwy	4.13	-	-	4.1	-	-	7.1	6.54	6.2	7.43	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.54	-	6.43	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.54	-	6.43	5.5	-
Follow-up Hdwy	2.227	-	-	2.2	-	-	3.5	4.036	3.3	3.797	4	3.3
Pot Cap-1 Maneuver	1162	-	-	1088	-	-	227	251	582	207	259	672
Stage 1	-	-	-	-	-	-	504	497	-	583	617	-
Stage 2	-	-	-	-	-	-	622	602	-	448	504	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	1161	-	-	1085	-	-	197	236	577	196	243	671
Mov Cap-2 Maneuver	-	-	-	-	-	-	197	236	-	196	243	-
Stage 1	-	-	-	-	-	-	475	468	-	550	616	-
Stage 2	-	-	-	-	-	-	564	601	-	419	475	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0	18.4	13.3
HCM LOS			C	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	272	1161	-	-	1085	-	-	506
HCM Lane V/C Ratio	0.012	0.04	-	-	0.001	-	-	0.141
HCM Control Delay (s)	18.4	8.2	0	-	8.3	0	-	13.3
HCM Lane LOS	C	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0	0.1	-	-	0	-	-	0.5

HCM 6th TWSC
5: Wesley Avenue & Washington Boulevard

12/09/2020

Intersection												
Int Delay, s/veh	1.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔			↔			↔	
Traffic Vol, veh/h	9	451	0	0	335	4	14	10	13	15	0	22
Future Vol, veh/h	9	451	0	0	335	4	14	10	13	15	0	22
Conflicting Peds, #/hr	4	0	2	2	0	4	1	0	2	2	0	1
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	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	1	0	0	1	0	0	0	0	0	0	0
Mvmt Flow	10	501	0	0	372	4	16	11	14	17	0	24

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	380	0	-	-	-	0	908	901	503	914	899	379
Stage 1	-	-	-	-	-	-	521	521	-	378	378	-
Stage 2	-	-	-	-	-	-	387	380	-	536	521	-
Critical Hdwy	4.1	-	-	-	-	-	7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	-	-	-	3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1190	-	0	0	-	-	258	280	573	256	281	672
Stage 1	-	-	0	0	-	-	542	535	-	648	619	-
Stage 2	-	-	0	0	-	-	641	617	-	532	535	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1185	-	-	-	-	-	246	276	572	238	277	669
Mov Cap-2 Maneuver	-	-	-	-	-	-	246	276	-	238	277	-
Stage 1	-	-	-	-	-	-	535	529	-	638	617	-
Stage 2	-	-	-	-	-	-	617	615	-	501	529	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0	17.9	15.4
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	319	1185	-	-	-	386
HCM Lane V/C Ratio	0.129	0.008	-	-	-	0.107
HCM Control Delay (s)	17.9	8.1	0	-	-	15.4
HCM Lane LOS	C	A	A	-	-	C
HCM 95th %tile Q(veh)	0.4	0	-	-	-	0.4

HCM 6th TWSC

6: Euclid Avenue (S Leg) & Madison Street /Madison Street

12/09/2020

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	636	16	6	713	13	6
Future Vol, veh/h	636	16	6	713	13	6
Conflicting Peds, #/hr	0	10	10	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	25	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	677	17	6	759	14	6

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	704	0	1467
Stage 1	-	-	-	-	696
Stage 2	-	-	-	-	771
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	-	-	903	-	142
Stage 1	-	-	-	-	498
Stage 2	-	-	-	-	460
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	894	-	140
Mov Cap-2 Maneuver	-	-	-	-	280
Stage 1	-	-	-	-	493
Stage 2	-	-	-	-	457

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	17.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	316	-	-	894	-
HCM Lane V/C Ratio	0.064	-	-	0.007	-
HCM Control Delay (s)	17.2	-	-	9.1	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
8: Wesley Avenue & Madison Street

12/09/2020

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	637	5	11	711	8	14
Future Vol, veh/h	637	5	11	711	8	14
Conflicting Peds, #/hr	0	10	10	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	50	-	0	-
Veh in Median Storage, #	0	-	-	0	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	1	0	0	1	0	0
Mvmt Flow	678	5	12	756	9	15

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	693	0	1471
Stage 1	-	-	-	-	691
Stage 2	-	-	-	-	780
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	-	-	912	-	141
Stage 1	-	-	-	-	501
Stage 2	-	-	-	-	455
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	903	-	138
Mov Cap-2 Maneuver	-	-	-	-	278
Stage 1	-	-	-	-	496
Stage 2	-	-	-	-	449

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	15.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	365	-	-	903	-
HCM Lane V/C Ratio	0.064	-	-	0.013	-
HCM Control Delay (s)	15.5	-	-	9	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
 9: Madison Street & Wesley Avenue

12/09/2020

Intersection						
Int Delay, s/veh	0.3					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	26	625	715	16	6	7
Future Vol, veh/h	26	625	715	16	6	7
Conflicting Peds, #/hr	15	0	0	15	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	50	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	1	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	0	1	1	0	0	0
Mvmt Flow	28	665	761	17	6	7

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	793	0	-	0	1506 785
Stage 1	-	-	-	-	785 -
Stage 2	-	-	-	-	721 -
Critical Hdwy	4.1	-	-	-	6.4 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.4 -
Follow-up Hdwy	2.2	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	837	-	-	-	135 396
Stage 1	-	-	-	-	453 -
Stage 2	-	-	-	-	485 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	825	-	-	-	127 390
Mov Cap-2 Maneuver	-	-	-	-	265 -
Stage 1	-	-	-	-	431 -
Stage 2	-	-	-	-	478 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	16.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	825	-	-	-	320
HCM Lane V/C Ratio	0.034	-	-	-	0.043
HCM Control Delay (s)	9.5	-	-	-	16.8
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.1

HCM 6th TWSC
10: Oak Park Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	1.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	6	0	12	2	0	1	81	633	2	2	661	44
Future Vol, veh/h	6	0	12	2	0	1	81	633	2	2	661	44
Conflicting Peds, #/hr	3	0	1	1	0	3	18	0	20	20	0	18
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	0	0	0	0	1	0	0	1	0
Mvmt Flow	6	0	13	2	0	1	84	659	2	2	689	46

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1235	1583	731	1572	1605	354	753	0	0	681	0	0
Stage 1	734	734	-	848	848	-	-	-	-	-	-	-
Stage 2	501	849	-	724	757	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.2	7.3	6.5	6.9	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	144	110	425	83	106	648	866	-	-	921	-	-
Stage 1	415	429	-	327	380	-	-	-	-	-	-	-
Stage 2	526	380	-	420	419	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	124	90	420	70	87	638	856	-	-	909	-	-
Mov Cap-2 Maneuver	124	90	-	70	87	-	-	-	-	-	-	-
Stage 1	347	423	-	273	317	-	-	-	-	-	-	-
Stage 2	442	317	-	405	413	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	21.7		42.2		1.6		0	
HCM LOS	C		E					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	856	-	-	234	100	909	-
HCM Lane V/C Ratio	0.099	-	-	0.08	0.031	0.002	-
HCM Control Delay (s)	9.7	0.6	-	21.7	42.2	9	0
HCM Lane LOS	A	A	-	C	E	A	A
HCM 95th %tile Q(veh)	0.3	-	-	0.3	0.1	0	-

HCM 6th TWSC
12: Wesley Avenue & Alley

12/09/2020

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕				
Traffic Vol, veh/h	0	0	2	1	0	1	2	36	4	0	0	0
Future Vol, veh/h	0	0	2	1	0	1	2	36	4	0	0	0
Conflicting Peds, #/hr	1	0	0	0	0	1	4	0	0	0	0	3
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	16965	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	74	74	74	74	74	74	74	74	74	74	74	74
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	3	0
Mvmt Flow	0	0	3	1	0	1	3	49	5	0	0	0

Major/Minor	Minor2		Minor1			Major1			
Conflicting Flow All	63	64	4	60	62	53	4	0	0
Stage 1	4	4	-	58	58	-	-	-	-
Stage 2	59	60	-	2	4	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.5	6.2	4.1	-	-
Critical Hdwy Stg 1	-	-	-	6.1	5.5	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4	3.3	2.2	-	-
Pot Cap-1 Maneuver	936	831	1085	941	833	1020	1631	-	-
Stage 1	-	-	-	959	851	-	-	-	-
Stage 2	958	849	-	-	-	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	931	827	1082	937	829	1020	1627	-	-
Mov Cap-2 Maneuver	931	827	-	937	829	-	-	-	-
Stage 1	-	-	-	957	849	-	-	-	-
Stage 2	955	847	-	-	-	-	-	-	-

Approach	EB		WB		NB	
HCM Control Delay, s	8.3		8.7		0.3	
HCM LOS	A		A			

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1
Capacity (veh/h)	1627	-	-	1082 977
HCM Lane V/C Ratio	0.002	-	-	0.002 0.003
HCM Control Delay (s)	7.2	0	-	8.3 8.7
HCM Lane LOS	A	A	-	A A
HCM 95th %tile Q(veh)	0	-	-	0 0

HCM 6th TWSC
 13: Site Access & Oak Park Avenue

12/09/2020

Intersection						
Int Delay, s/veh	1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations		↗	↕			↕
Traffic Vol, veh/h	0	124	592	129	0	675
Future Vol, veh/h	0	124	592	129	0	675
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, %	0	0	1	0	0	1
Mvmt Flow	0	131	623	136	0	711

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	-	380	0	0	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-
Critical Hdwy	-	6.9	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-
Follow-up Hdwy	-	3.3	-	-	-
Pot Cap-1 Maneuver	0	624	-	-	0
Stage 1	0	-	-	-	0
Stage 2	0	-	-	-	0
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	-	624	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-
Stage 1	-	-	-	-	-
Stage 2	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBT
Capacity (veh/h)	-	-	624
HCM Lane V/C Ratio	-	-	0.209
HCM Control Delay (s)	-	-	12.3
HCM Lane LOS	-	-	B
HCM 95th %tile Q(veh)	-	-	0.8

HCM 6th TWSC
 14: Madison Street & Site Access

12/09/2020

Intersection						
Int Delay, s/veh	1.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑			↑
Traffic Vol, veh/h	0	652	595	131	0	127
Future Vol, veh/h	0	652	595	131	0	127
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	1	1	0	0	0
Mvmt Flow	0	686	626	138	0	134

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	-	0	-
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	-
Pot Cap-1 Maneuver	0	-	-
Stage 1	0	-	-
Stage 2	0	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0	0	16.5
HCM LOS			C

Minor Lane/Major Mvmt	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	-	446
HCM Lane V/C Ratio	-	-	-	0.3
HCM Control Delay (s)	-	-	-	16.5
HCM Lane LOS	-	-	-	C
HCM 95th %tile Q(veh)	-	-	-	1.2