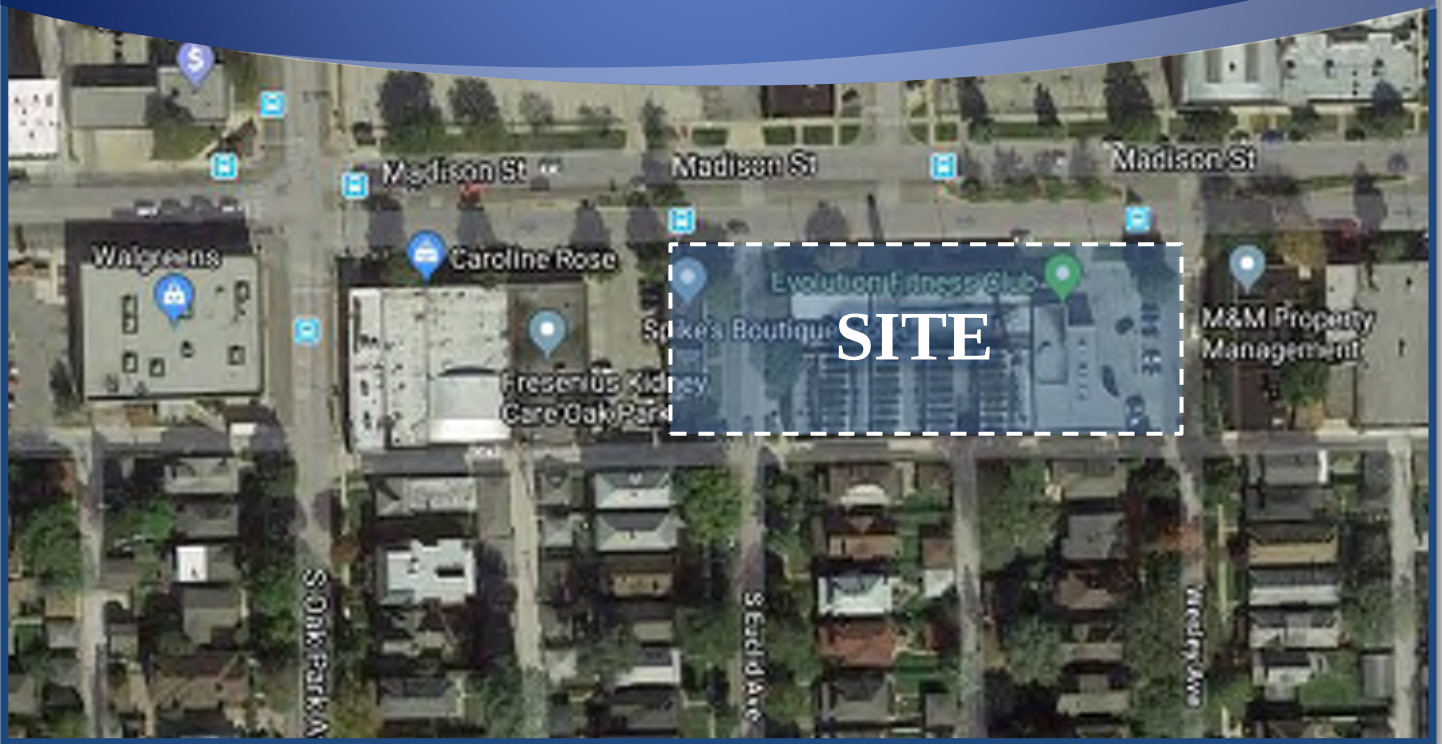


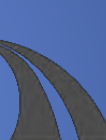
Traffic Impact Study Proposed Senior Living Development

Oak Park, Illinois



Prepared For:

**American
House** 
SENIOR LIVING COMMUNITIES

KLOA 
Kenig, Lindgren, O'Hara, Aboona, Inc.

January 23, 2020

Table of Contents

List of Figures and Tables, ii

1. Introduction.....	1
2. Existing Conditions.....	2
Site Location	2
Existing Roadway System Characteristics.....	2
Existing Traffic Volumes.....	7
3. Traffic Characteristics of the Proposed Development.....	9
Proposed Site and Development Plan	9
Directional Distribution	9
Peak Hour Traffic Volumes	11
4. Projected Traffic Conditions.....	12
Development Traffic Assignment.....	12
Year 2023 Base (with Road Diet) Traffic Conditions	12
Total Projected Traffic Volumes	12
5. Traffic Analysis and Recommendations.....	17
Traffic Analyses.....	17
Discussion and Recommendations	21
Parking Analysis	31
6. Conclusion	32

List of Figures and Tables

Figures

Figure 1 – Site Location.....	3
Figure 2 – Aerial View of Site Location.....	4
Figure 3 – Existing Roadway Characteristics	5
Figure 4 – Existing Traffic Volumes	8
Figure 5 – Directional Distribution.....	10
Figure 6 – Site Traffic Assignment.....	13
Figure 7 – Year 2023 No-Build Traffic Volumes.....	14
Figure 8A – Year 2023 Total Projected Traffic Volumes	15
Figure 9 – Year 2023 Total Projected Traffic Volumes (20% Diversion)	16
Figure 8B – Year 2023 Total Projected Traffic Volumes Alternative B.....	26
Figure 8C – Year 2023 Total Projected Traffic Volumes Alternative C.....	27

Tables

Table 1 – Projected Site-Generated Traffic Volumes.....	11
Table 2 – Capacity Analysis Results – Madison Street with Oak Park Avenue.....	18
Table 3 – Capacity Analysis Results – Madison Street with East Avenue.....	19
Table 4 – Capacity Analysis Results – Year 2023 No-Build Conditions	20
Table 5 – Capacity Analysis Results – Year 2023 Projected Conditions.....	21
Table 6 – Comparison of Impact – Wesley Avenue	28
Table 7 – Comparison of Impact – Clarence Avenue.....	29

1. Introduction

This report summarizes the methodologies, results, and findings of a traffic impact study conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a senior living development to be located in Oak Park, Illinois. The site, which is currently occupied by a vacant building and a dog day care business, is located on the south side of Madison Street generally between Euclid Avenue and Wesley Avenue.

As proposed, the site will be redeveloped with a senior living building providing 76 independent living units, 65 assisted living units, and 33 memory care units with 125 off-street parking spaces of which five will be designated for guests. 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.

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 determine if any roadway or access improvements are necessary to accommodate traffic generated by the proposed development.

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

Given the ongoing road diet construction along Madison Street, traffic capacity analyses were conducted for the weekday morning and evening peak hours for the following conditions:

1. Year 2023 (Future) Base Conditions with Road Diet – This condition analyzes Year 2023 traffic volumes assuming the currently under construction road diet plans for Madison Street by the Village of Oak Park. These plans will reduce the cross-section of Madison Street from a five-lane cross-section to a three-lane cross-section (one through lane in each direction with a center lane providing left-turn storage) at all signalized and unsignalized intersections and exclusive right-turn lanes at key intersections.
2. Year 2023 (Future Total) Projected Conditions – This condition includes the Year 2023 Base Conditions with Road Diet and the addition of the traffic estimated to be generated by the proposed development.
3. Year 2023 (Future Total) Projected Conditions (20 Percent Diversion) – This condition assumes a 20 percent diversion of through traffic on Madison Street to alternate east-west routes north and south of Madison Street as a result of the road diet project.

2. Existing Conditions

Existing transportation conditions in the vicinity of the site were documented based on a field visit 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

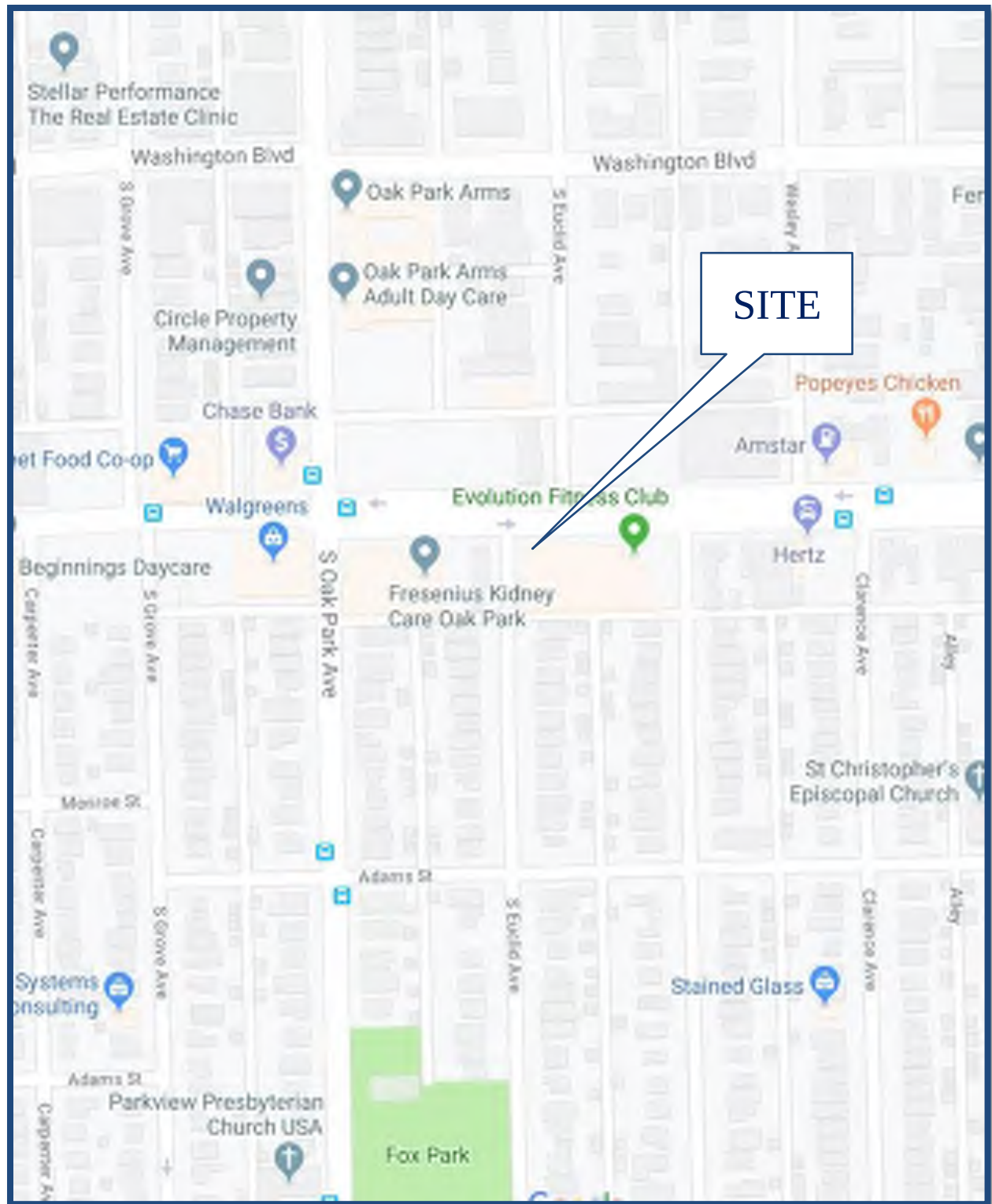
The site, which is currently occupied by a vacant commercial building and a dog day care business, is located on the south side of Madison Street generally between Euclid Avenue and Wesley Avenue. Land uses in the vicinity of the site are primarily retail along Madison Street and residential to the south.

Figure 1 shows the location of the site in relation to the area roadway system. **Figure 2** shows an aerial view of the site.

Existing Roadway System Characteristics

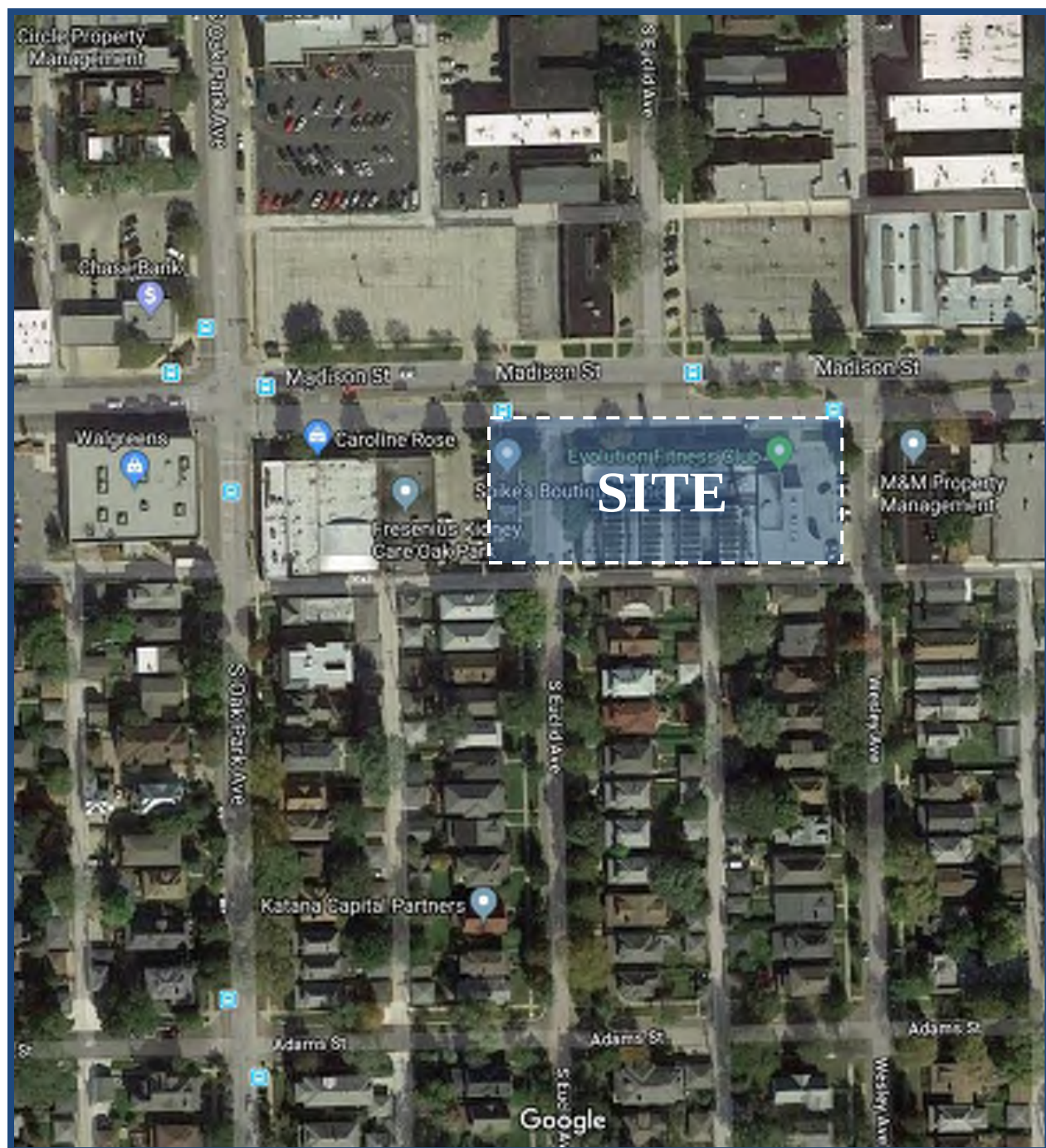
The characteristics of the existing roadways near the development are described below and illustrated in **Figure 3**.

Madison Street is an east-west arterial roadway with a posted speed limit of 30 mph. Given the ongoing Madison Street road diet reconstruction, Madison Street will provide one lane in each direction with dedicated bike lanes on both sides of the road. At its signalized intersection with Oak Park Avenue, Madison Street will provide an exclusive left-turn lane, a through lane, and an exclusive right-turn lane on both approaches. High visibility crosswalks will be provided on both approaches. At its unsignalized intersections with Euclid Avenue and Wesley Avenue, Madison Street will provide 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, restricted to one-hour Monday through Saturday from 9:00 A.M. to 6:00 P.M., will be generally provided from Oak Park Avenue east to Wesley Avenue. Madison Street is under the jurisdiction of the Village of Oak Park and carries an annual average daily traffic (AADT) volume of 19,100 vehicles (Illinois Department of Transportation [IDOT] 2018).



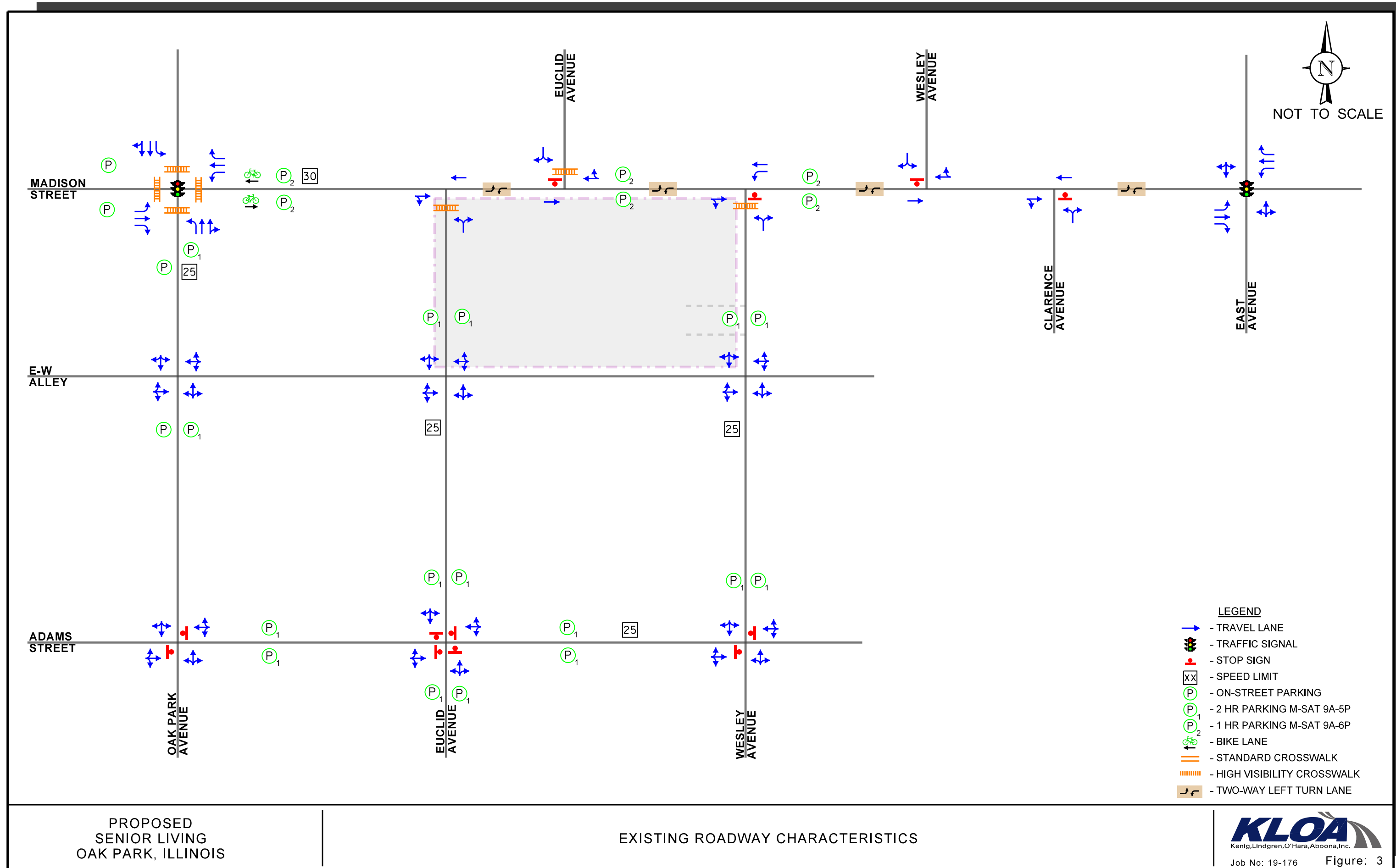
Site Location

Figure 1



Aerial View of Site

Figure 2



Oak Park Avenue is a north-south major collector roadway that in the vicinity of the site provides one through lane in each direction. At its signalized intersection with Madison Street, Oak Park Avenue is widened to provide an exclusive left-turn lane, a through lane, and a shared through/right-turn lane on both approaches. High visibility crosswalks are provided on both approaches. No exclusive turn lanes are provided at its unsignalized intersections with the east-west alley and Adams Street. Parking is permitted on both sides of Oak Park Avenue north of Madison Street. South of Madison Street, parking is restricted to two-hour from 9:00 A.M. to 5:00 P.M. Monday through Saturday on the east side of the roadway. The west side of the roadway provides unrestricted parking. Oak Park Avenue is under the jurisdiction of the Village of Oak Park, has a posted speed limit of 25 mph, and carries an AADT volume of 13,600 vehicles (IDOT 2018).

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. As part of the Madison Street road diet project, high visibility crosswalks will be provided on both approaches. 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 will be provided on both approaches. Wesley Avenue is under the jurisdiction of the Village of Oak Park and has a posted speed limit of 25 mph.

Adams Street is an east-west local roadway that provides one lane in each direction with on-street parking restricted to two-hour from 9:00 A.M. to 5:00 P.M. Monday through Saturday on both sides of the road. No exclusive turn lanes are provided at any of the unsignalized intersections with Oak Park Avenue, Euclid Avenue, or Wesley Avenue. Adams Street is under the jurisdiction of the Village of Oak Park and has a posted speed limit of 25 mph.

Public Alley is an east-west alley that serves the commercial developments along Madison Street and the residential homes south of the alley.

Madison Street Improvements

The Village of Oak Park is currently reconstructing Madison Street with a road diet in order to enhance conditions for all modes of transportation and to install bike lanes along both sides of Madison Street. Madison Street is being improved and/or modified as follows:

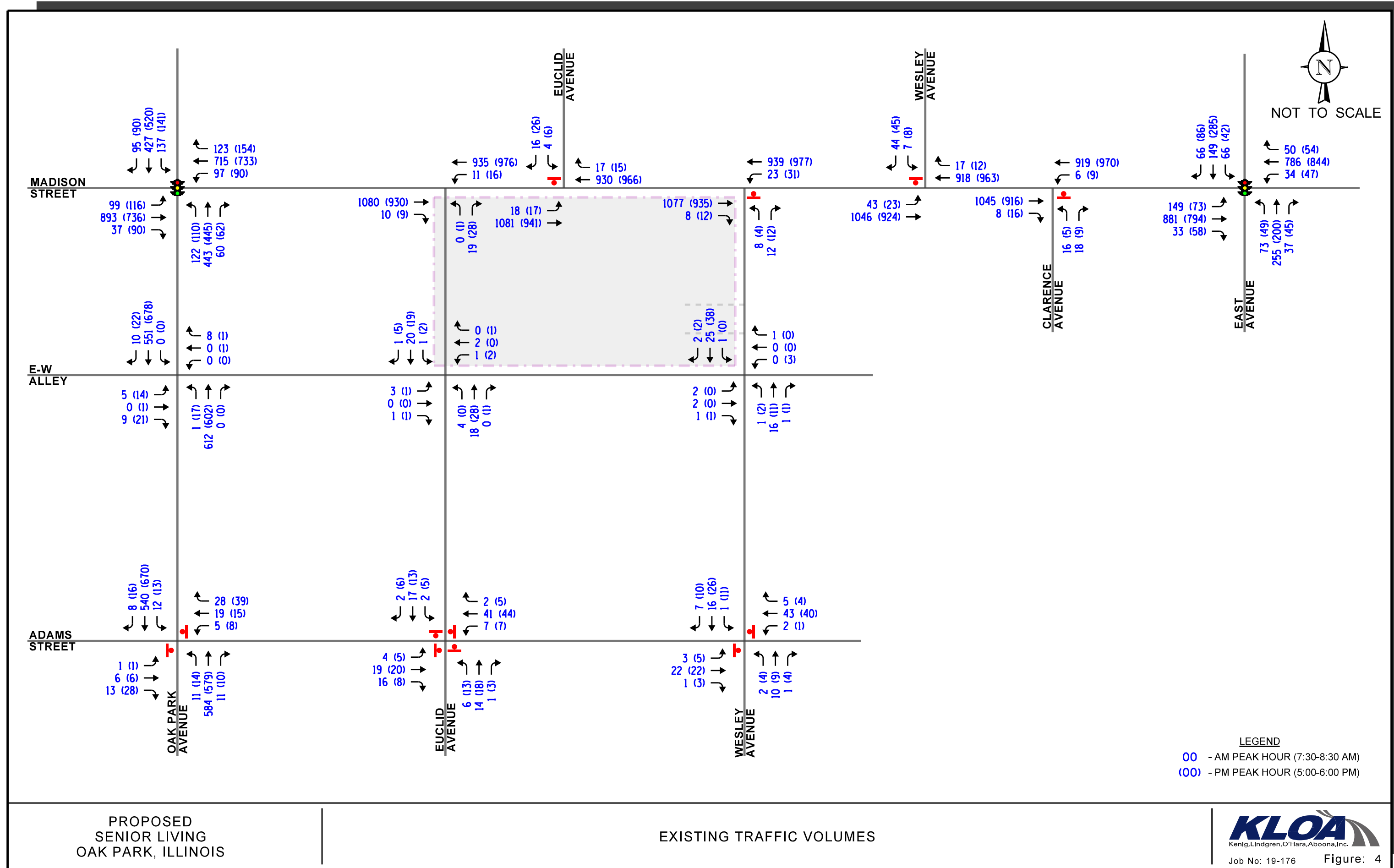
- *Madison Street - Oak Park Avenue to Austin Boulevard:* This section of Madison Street is being modified to generally provide a 14-foot median, one 12-foot vehicle lane in each direction, one six-foot buffered bike lane in each direction, and nine-foot parking lanes on each side of the road.

In addition, a number of enhancements to the pedestrian and bicycle facilities are proposed along the corridor including dedicated bike lanes, bus stops, high visibility crosswalks, pedestrian refuge islands and curb extensions, and additional pedestrian crossing signage.

It should be noted that as part of the reconstruction, the landscaped medians located on Madison Street between Oak Park Avenue and Austin Boulevard will be eliminated. With the elimination of the medians, Madison Street will provide for left-turn channelization or the provision of TWLTL at unsignalized intersections and longer left-turn lanes at signalized intersections, all of which will improve operations and safety as it will minimize the left-turn queuing that extends into through lanes. Further, the protected bike lanes will enhance bicycle operations and safety. In addition, it should be noted that exclusive eastbound and westbound right-turn lanes also serving as bus stops will be provided on Madison Street at its signalized intersection with Oak Park Avenue.

Existing Traffic Volumes

In order to determine current traffic conditions in the vicinity of the site, KLOA, Inc. conducted peak period traffic counts using Miovision Scout Video Collection Units on Tuesday, July 23, 2019 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.) peak periods at the respective intersections of Madison Street, the east-west alley, and Adams Street with Oak Park Avenue, Euclid Avenue, and Wesley Avenue. Counts were also conducted at the intersection of Madison Street with Clarence Avenue and the north leg of Wesley Avenue on Monday December 9, 2019. Furthermore, previous traffic counts conducted at the intersection of Madison Street with East Avenue in 2018 on behalf of the Village of Oak Park were utilized. Given that the road diet project was completed when the traffic counts at the intersections of Madison Street with Clarence Avenue and the north leg of Wesley Avenue were conducted, the through volumes were balanced throughout the study corridor using these counts. 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. and the evening peak hour of traffic occurs from 5:00 P.M. to 6:00 P.M. **Figure 4** illustrates the existing peak hour traffic volumes. Copies of the traffic count summary sheets are included in the Appendix.



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.

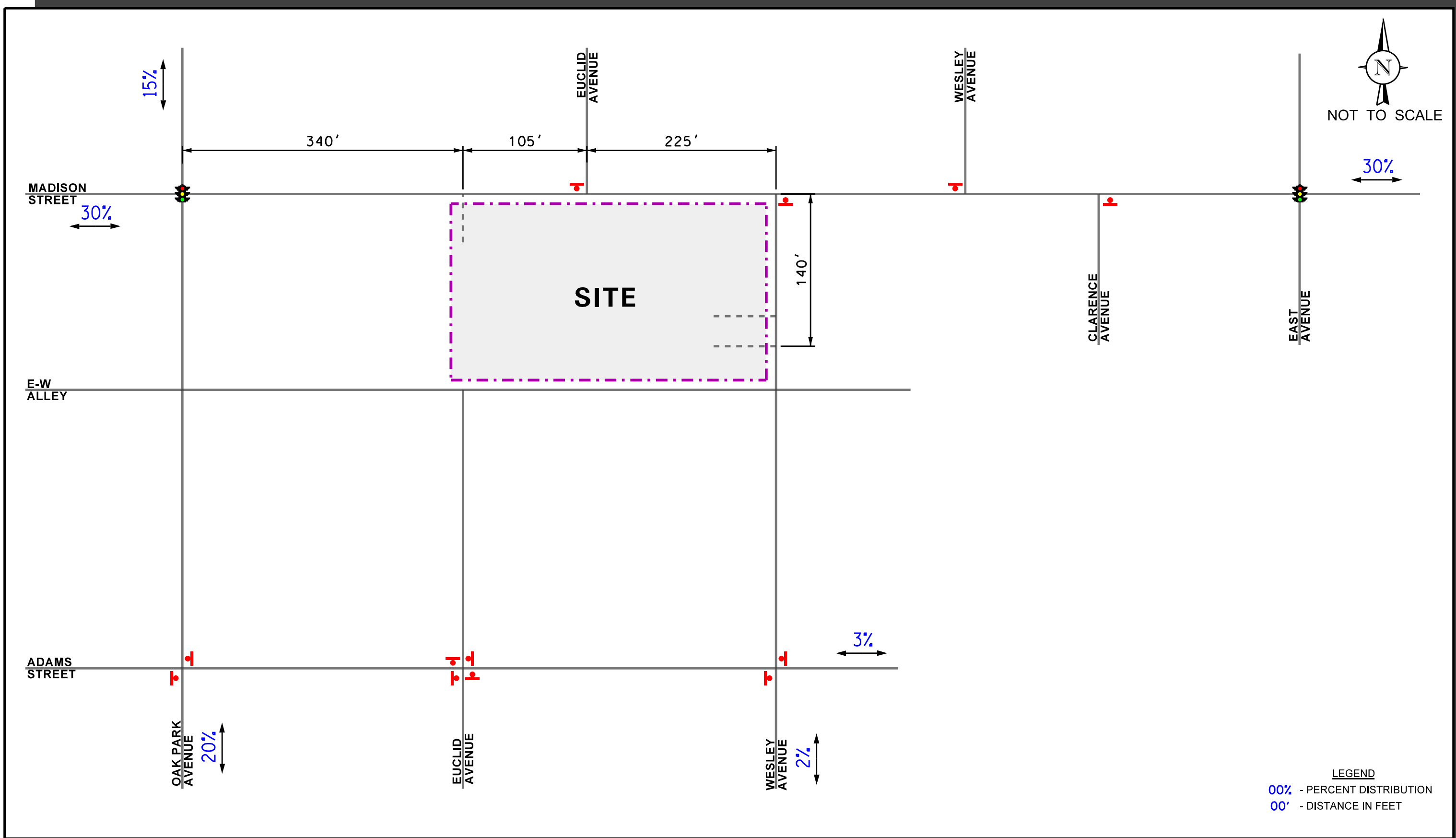
Proposed Site and Development Plan

As proposed, the plans call for redeveloping the site with a senior living building providing 76 independent living units, 65 assisted living units, and 33 memory care units. As part of the proposed development, the south leg of Euclid Avenue will be vacated between Madison Street and the east-west alley immediately south of the site allowing for the building to extend from the west side of Wesley Avenue to approximately 35 feet west of Euclid Avenue.

Parking for the residents and employees will be provided in an underground parking garage located on the west side of the site providing 120 off-street parking spaces. Access to the resident and employee parking garage will be provided via one full movement access drive on Madison Street at approximately the same location of the south leg of Euclid Avenue. This access drive will provide one inbound lane and one outbound lane with outbound movements under stop sign control. Parking for guests of the site will be provided in a covered parking lot providing five parking spaces. Access to the guest parking lot will be provided on Wesley Avenue at the same location of the access drive serving the parking lot of the existing building approximately 140 feet south of Madison Street. Outbound movements from this access drive will be under stop sign control. A copy of the site plan depicting the proposed development and access is included in the Appendix.

Directional Distribution

The directions from which residents and visitors of the development will approach and depart the site were estimated based on existing travel patterns, as determined from the traffic counts. **Figure 5** illustrates the directional distribution of the development-generated traffic.



PROPOSED
SENIOR LIVING
OAK PARK, ILLINOIS

ESTIMATED DIRECTIONAL DISTRIBUTION

Peak Hour Traffic Volumes

The number of peak hour vehicle trips estimated to be generated by the proposed development of 76 independent living units, 65 assisted living units, and 33 memory care units was based on vehicle trip generation rates contained in *Trip Generation Manual*, 10th Edition, published by the Institute of Transportation Engineers (ITE). **Table 1** shows the site-generated traffic volumes for the proposed development. Copies of the trip generation graphs are included in the Appendix.

Table 1
PROJECTED SITE-GENERATED TRAFFIC VOLUMES

ITE Land- Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Daily Two- Way Trips
		In	Out	Total	In	Out	Total	
252	Independent Living (76 Units)	5	10	15	11	9	20	272
254	Assisted Living/Memory Care (98 units)	12	7	19	10	16	26	262
Total		17	17	34	21	25	46	534

4. Projected Traffic Conditions

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

Development Traffic Assignment

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

Year 2023 Base (with Road Diet) Traffic Conditions

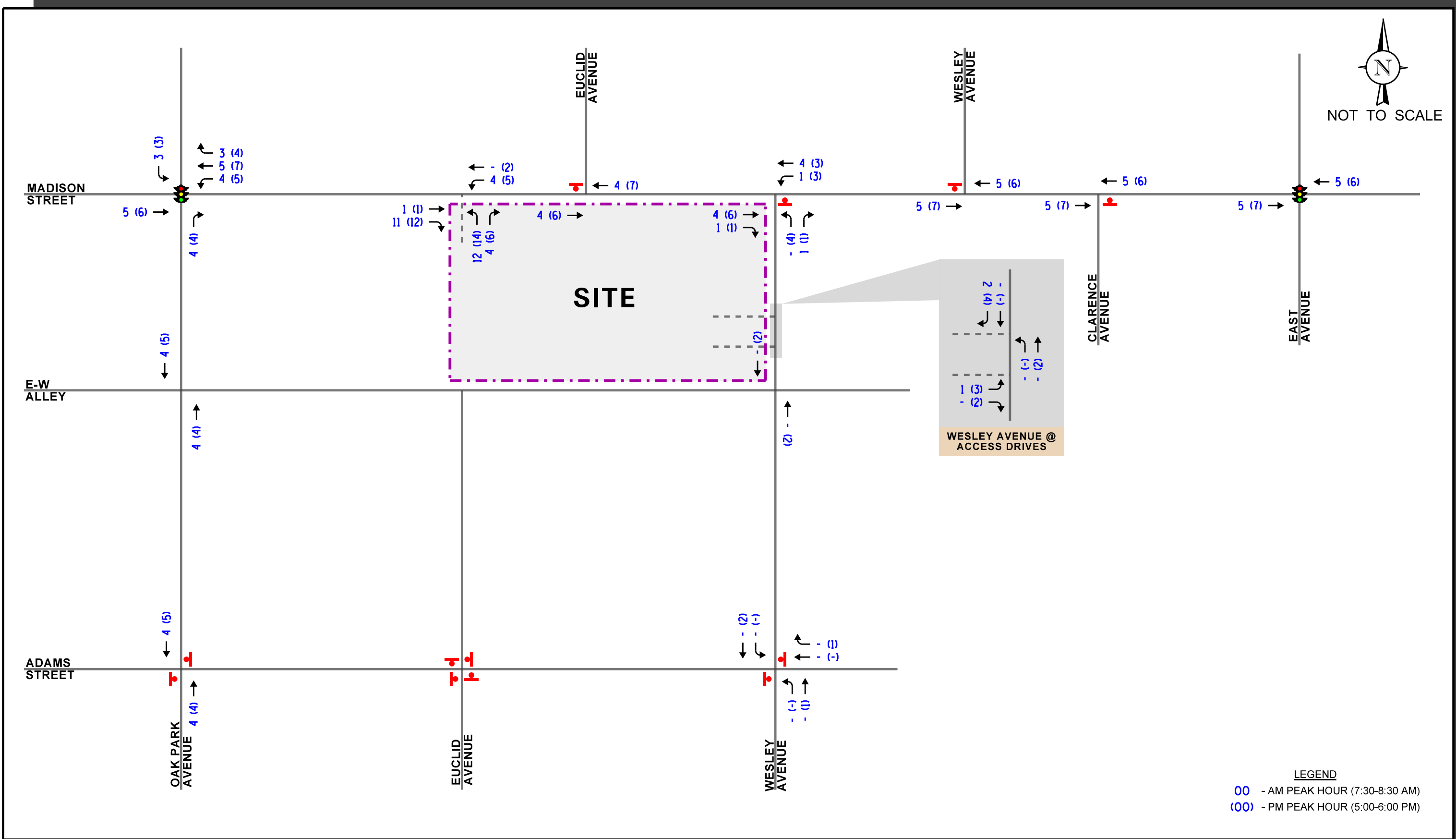
Year 2023 base traffic conditions includes the existing traffic volumes increased by a regional growth factor as further detailed below. In addition, the traffic to be generated by the recently approved Fenwick High School parking garage project was included.

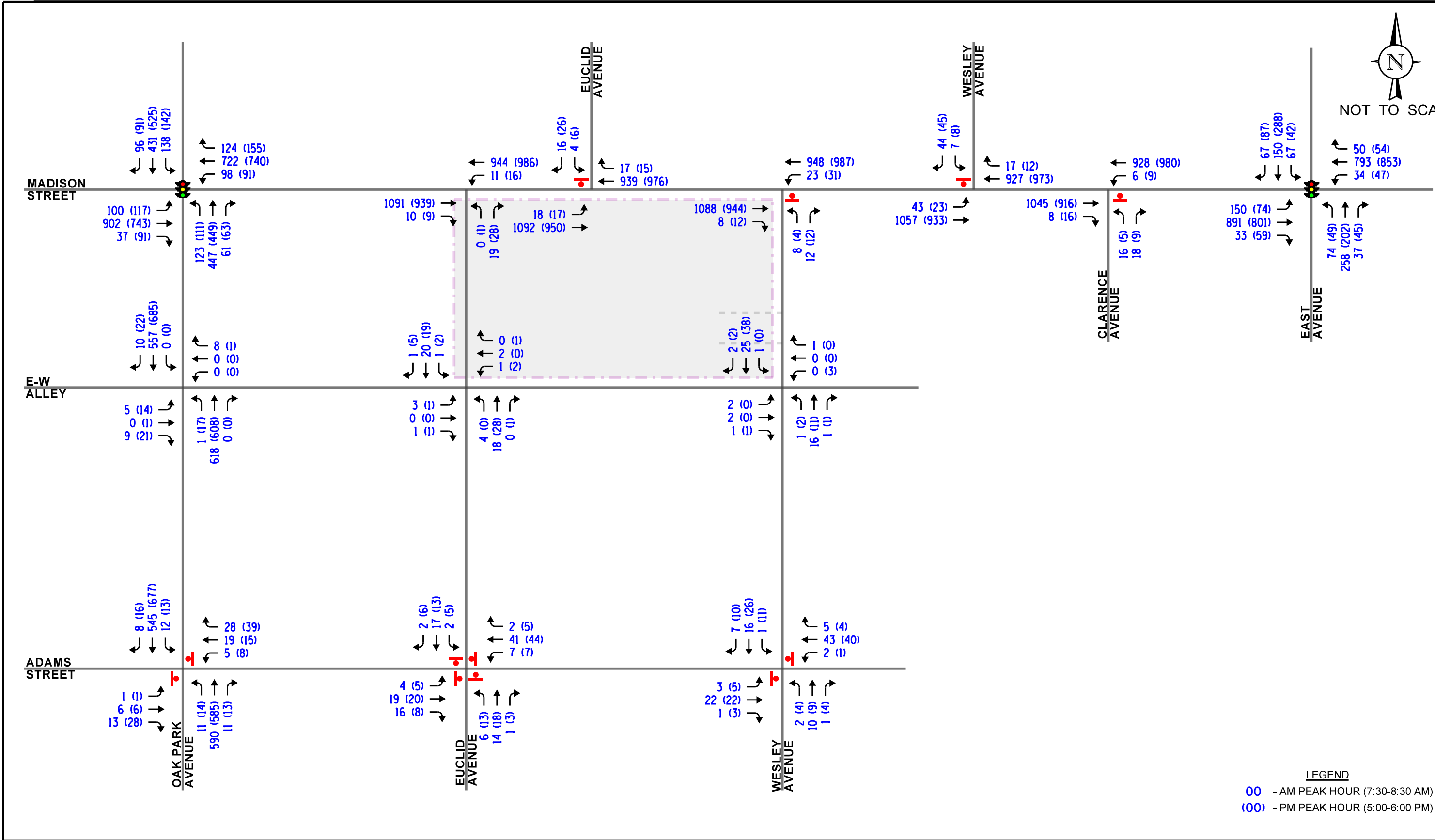
Regional Growth in Traffic. To account for the increase in existing traffic related to regional growth in the area (i.e. not attributable to any particular planned development) for Year 2023 conditions, the existing peak hour traffic volumes on the adjacent roadways were increased by a factor of one percent. This increase percentage was based on population forecasts provided by the Chicago Metropolitan Agency for Planning (CMAP). **Figure 7** shows the Year 2023 base traffic volumes.

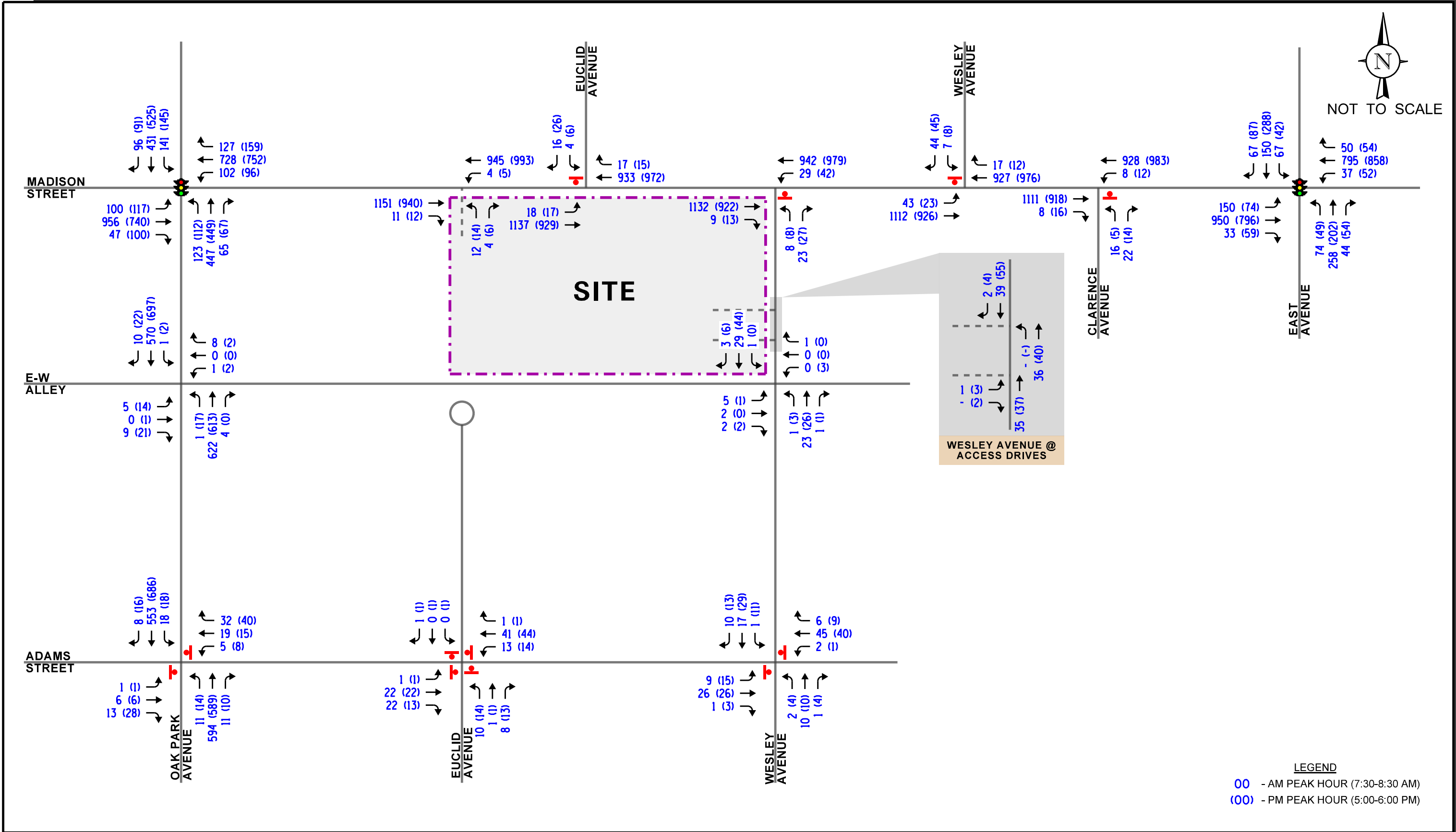
Total Projected Traffic Volumes

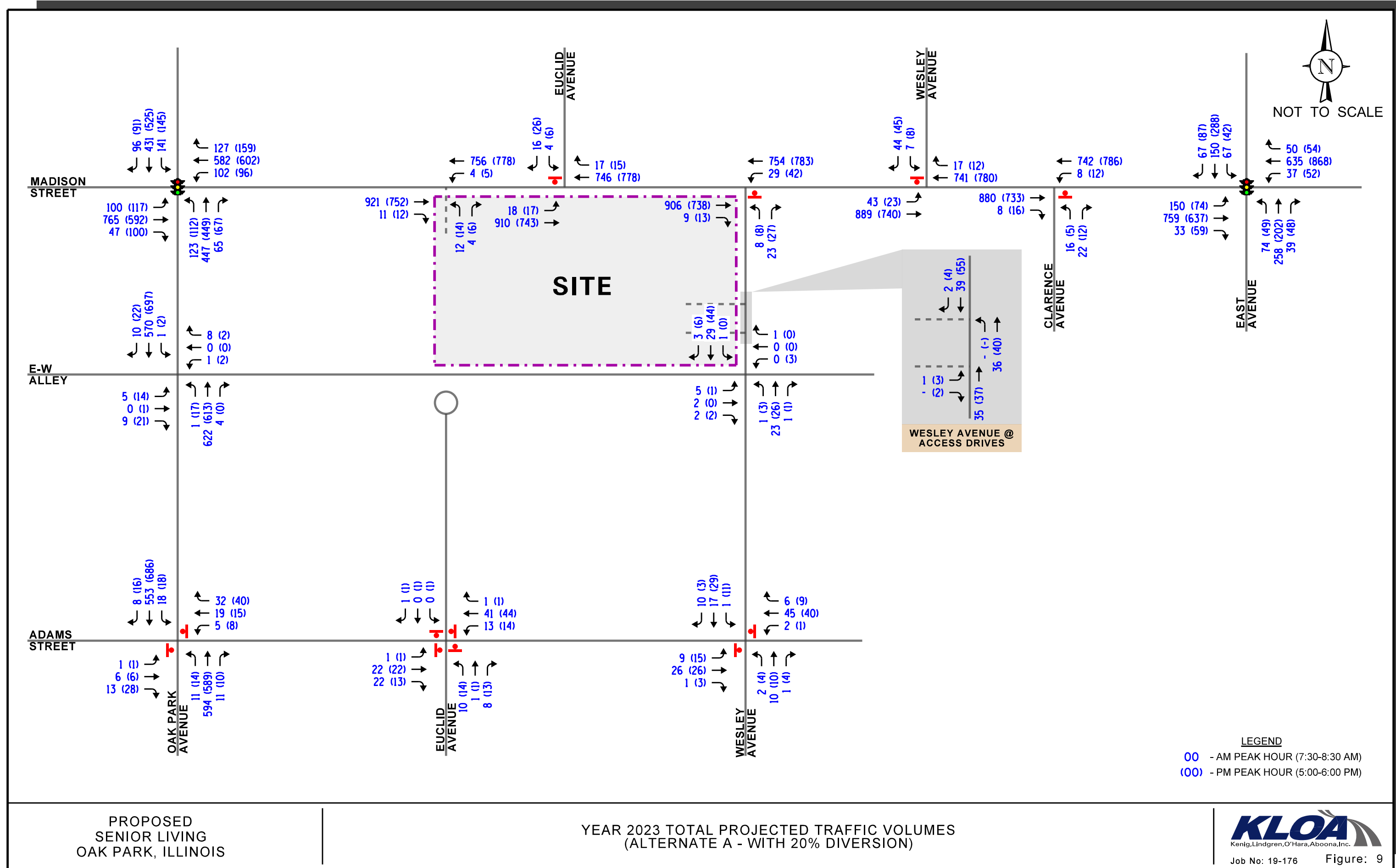
The development generated traffic was added to the Year 2023 Based Traffic Volumes to determine the Year 2023 total projected traffic volumes, shown in **Figure 8A**. Included in these projections is the reassignment of traffic to the area roadways and the alley as a result of the vacation of Euclid Avenue between Madison Street and the east-west alley fronting the site to the south. Based on the existing traffic counts, the proposed vacation of Euclid Avenue will only result in the reassignment of approximately 40 to 54 vehicles (in/out) during the peak hours. This low volume of traffic can be accommodated by the other adjacent roadways and intersections in the area.

It should be noted that as discussed in the Madison Street Road Diet traffic study prepared on behalf of the Village of Oak Park, it is likely that a portion of the Madison Street traffic will be diverted to other east-west roads with the road diet, primarily during the weekday morning and evening peak periods. Therefore, a 20 percent diversion was applied to the through traffic volumes along Madison Street. Based on the Madison Street traffic study, it is anticipated that this traffic will be diverted to Washington Boulevard and Jackson Boulevard. The Year 2023 total projected traffic volumes with 20 percent diversion are shown in **Figure 9**.









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 Year 2023 Base traffic volumes and Year 2023 Total 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 signalized intersection were conducted utilizing actual cycle lengths, phasings, and offsets.

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

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

Summaries of the traffic analysis results showing the level of service and overall intersection delay (measured in seconds) for the Year 2023 base and total projected conditions are presented in **Tables 2** through **5**. A discussion of the intersections follows. Summary sheets for the capacity analyses are included in the Appendix.

Table 2

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

Year 2023 No-Build Conditions	Peak Hour	Eastbound			Westbound			Northbound		Southbound		Overall	
		L	T	R	L	T	R	L	TR	L	TR		
	Weekday Morning Peak Hour	C 32.2	F >99.0	B 16.5	C 25.6	D 35.3	B 12.4	D 47.7	D 38.0	D 54.4	D 38.8	E – 57.3	
		F - >99.0			C – 31.1			D – 39.9		D -42.1			
	Weekday Evening Peak Hour	C 25.8	D 36.9	B 15.7	B 17.5	D 41.9	B 18.0	D 38.3	D 39.2	D 38.9	D 46.1	D – 37.8	
		C – 33.5			D – 35.9			D – 39.0		D – 44.7			
	Year 2023 Projected Conditions	Weekday Morning Peak Hour	C 32.2	F >99.0	B 16.8	C 27.1	D 35.0	B 12.1	D 47.7	D 38.2	E 57.5	D 38.8	E – 66.3
			F - >99.0			C – 31.1			D – 40.1		D – 42.8		
		Weekday Evening Peak Hour	C 28.6	D 36.6	B 15.8	B 18.1	D 44.1	B 18.1	D 38.7	D 39.4	D 40.2	D 46.1	D – 38.4
			C – 33.4			D – 37.5			D – 39.2		D – 45.0		
	Year 2023 Projected Conditions (20% Diversion)	Weekday Morning Peak Hour	B 16.0	E 55.9	B 16.8	C 30.4	C 27.0	B 16.0	D 47.7	D 38.2	E 57.5	D 38.8	D – 39.7
			D – 49.5			C – 25.7			D – 40.1		D – 42.8		
Weekday Evening Peak Hour		B 14.1	C 25.8	B 15.8	B 12.6	C 28.4	B 18.0	D 38.7	D 39.4	D 40.2	D 46.1	C – 32.2	
		C – 22.8			C – 24.7			D – 39.2		D – 45.0			
Letter denotes Level of Service Delay is measured in seconds.			L – Left Turns T – Through			R – Right Turns							

Table 3

CAPACITY ANALYSIS RESULTS – MADISON STREET WITH EAST AVENUE – SIGNALIZED

Year 2023 No-Build Conditions	Peak Hour	Eastbound			Westbound			Northbound		Southbound		Overall	
		L	T	R	L	T	R	L	TR	L	TR		
	Weekday Morning Peak Hour	D 46.9	B 15.0	A 0.1	B 11.6	C 32.5	A 0.8	D 47.2	D 50.3	F 93.5	D 35.6	C – 30.3	
		B – 19.0			C – 29.9			D – 49.7		D -49.2			
	Weekday Evening Peak Hour	B 11.5	B 18.2	A 1.8	A 7.4	C 23.0	A 1.5	E 78.5	C 34.1	C 33.0	D 51.8	C – 26.4	
		B – 16.7			C – 21.0			D – 41.4		D – 49.9			
	Year 2023 Projected Conditions	Weekday Morning Peak Hour	D 45.4	B 16.9	A 0.1	B 14.6	C 32.8	A 0.8	D 46.5	D 51.4	F 98.6	D 35.4	C – 31.0
			C – 20.2			C – 30.2			D – 50.5		D – 50.2		
		Weekday Evening Peak Hour	B 11.9	B 18.1	A 1.8	A 7.5	C 23.3	A 1.5	E 78.5	C 34.5	C 33.5	D 51.8	C – 26.5
			B – 16.5			C – 21.3			D – 41.6		D – 50.0		
	Year 2023 Projected Conditions (20% Diversion)	Weekday Morning Peak Hour	B 11.5	B 13.1	A 0.2	A 8.5	C 21.4	A 0.8	D 45.9	D 50.7	F 93.5	D 35.1	C – 25.0
			B – 12.4			B – 19.3			D – 49.8		D – 48.8		
Weekday Evening Peak Hour		A 8.6	B 15.6	A 1.9	A 7.2	B 18.5	A 1.5	E 55.8	C 32.3	C 31.1	D 45.4	C – 23.3	
		B – 13.9			B – 16.6			D – 36.1		D – 43.9			
Letter denotes Level of Service Delay is measured in seconds.			L – Left Turns T – Through			R – Right Turns							

Table 4

CAPACITY ANALYSIS RESULTS (UNSIGNALIZED) - YEAR 2023 NO BUILD

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Madison Street with Euclid Avenue				
• Northbound Approach	C	20.1	C	18.4
• Southbound Approach	C	19.5	C	21.2
• Eastbound Left	B	10.2	B	10.5
• Westbound Left	B	10.8	B	10.2
Madison Street with Wesley Avenue				
• Northbound Approach	D	26.5	C	20.4
• Westbound Left Turns	B	11.0	B	10.5
• Southbound Approach	C	20.6	C	22.3
• Eastbound Left Turns	B	10.3	B	10.5
Madison Street with Clarence Avenue				
• Northbound Approach	D	25.3	C	20.3
• Westbound Left Turns	B	10.8	B	10.2
Oak Park Avenue with Public Alley				
• Eastbound Approach	C	20.1	D	29.1
• Westbound Approach	B	13.0	B	12.9
Oak Park Avenue with Adams Street				
• Eastbound Approach	C	20.2	C	19.5
• Westbound Approach	D	26.8	D	26.5
• Northbound Left	A	0.2	A	0.2
• Southbound Left	A	0.2	A	0.2
Adams Street with Euclid Avenue				
• Overall	A	7.2	A	7.4
Adams Street with Wesley Avenue				
• Eastbound Approach	A	9.6	A	9.9
• Westbound Approach	A	9.7	B	10.0
• Northbound Left	A	1.1	A	1.7
• Southbound Left	A	0.3	A	1.7
Wesley Avenue with Public Alley				
• Eastbound Approach	A	9.0	A	8.6
• Westbound Approach	A	8.4	A	9.0
LOS = Level of Service Delay is measured in seconds.				

Table 5

CAPACITY ANALYSIS RESULTS (UNSIGNALIZED) - YEAR 2023 PROJECTED

Intersection	Weekday Morning Peak Hour		Weekday Evening Peak Hour	
	LOS	Delay	LOS	Delay
Madison Street with Euclid Avenue/Access Drive				
• Northbound Approach	C (C)	26.1 (20.2)	C (C)	18.4 (18.8)
• Southbound Approach	C (C)	19.5 (16.0)	C (C)	21.0 (21.3)
• Eastbound Left	B (A)	10.2 (9.4)	B(B)	10.5 (10.2)
• Westbound Left	B (A)	11.0 (9.9)	B (A)	10.1 (9.3)
Madison Street with Wesley Avenue				
• Northbound Approach	D (C)	28.1 (21.0)	C (C)	21.3 (17.0)
• Westbound Left Turns	B (B)	11.3 (10.1)	B (A)	10.5 (9.6)
• Southbound Approach	C (C)	20.7 (16.5)	C (C)	22.3 (17.4)
• Eastbound Left Turns	B (A)	10.3 (9.5)	B (A)	10.5 (9.6)
Madison Street with Clarence Avenue				
• Northbound Approach	D (C)	27.0 (20.2)	C (C)	19.8 (16.1)
• Westbound Left Turns	B (A)	11.1 (10.0)	B (A)	10.2 (9.4)
Oak Park Avenue with Public Alley				
• Eastbound Approach	C	20.7	D	29.8
• Westbound Approach	B	15.3	D	28.6
Oak Park Avenue with Adams Street				
• Eastbound Approach	C	20.9	C	19.9
• Westbound Approach	D	27.5	D	27.4
• Northbound Left	A	8.8	A	9.3
• Southbound Left	A	9.1	A	8.8
Adams Street with Euclid Avenue				
• Overall	A	7.2	A	7.3
Adams Street with Wesley Avenue				
• Eastbound Approach	A	9.7	B	10.1
• Westbound Approach	A	9.7	B	10.0
• Northbound Left	A	7.3	A	7.3
• Southbound Left	A	7.2	A	7.3
Wesley Avenue with Public Alley				
• Eastbound Approach	A	8.9	A	8.7
• Westbound Approach	A	8.5	A	9.1
LOS = Level of Service Delay is measured in seconds. () – LOS and Delay with 20 percent diversion of Madison Street traffic				

Discussion and Recommendations

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

Madison Street with Oak Park Avenue

The results of the capacity analysis indicate that under Year 2023 no-build conditions, this intersection is projected to operate at LOS E and D during the weekday morning and evening peak hours, respectively, assuming no diversion of traffic on Madison Street. These results are similar and consistent with those documented and approved in the Madison Street Road Diet traffic study. Under Year 2023 projected conditions and assuming no diversion of Madison Street traffic, the intersection will continue operating at the same overall LOS, thus indicating that the proposed development will have a minimal impact on the traffic operations of this intersection. Under Year 2023 projected conditions and assuming a 20 percent diversion of Madison Street traffic as a result of the road diet project, the overall intersection LOS during the weekday morning and evening peak hours will be D and C, respectively. This anticipated diversion of Madison Street traffic will enhance the operations of the intersections and the Madison Street through movements. Further, the projected Madison Street queues will be reduced, thus minimizing the potential for queues to extend through downstream intersections and the number of vehicles that do not clear the intersection in one traffic signal cycle. Therefore, the proposed development traffic will have a limited impact on the operations of this intersection and no roadway improvements or signal modifications will be required.

Madison Street with East Avenue

The results of the capacity analysis indicate that under Year 2023 no-build conditions, this intersection is projected to operate at LOS C during the weekday morning and evening peak hours, respectively, assuming no diversion of traffic on Madison Street. These results are similar and consistent with those documented and approved in the Madison Street Road Diet traffic study. Under Year 2023 projected conditions and assuming no diversion of Madison Street traffic, the intersection will continue operating at the same overall LOS C with minimal increases in the overall delay, thus indicating that the proposed development will have a minimal impact on the traffic operations of this intersection. Under Year 2023 projected conditions and assuming a 20 percent diversion of Madison Street traffic as a result of the road diet project, the overall intersection LOS during the weekday morning and evening peak hours will be C. This anticipated diversion of Madison Street traffic will enhance the operations of the intersections and the Madison Street through movements. Further, the projected Madison Street queues will be reduced, thus minimizing the potential for queues to extend through downstream intersections and the number of vehicles that do not clear the intersection in one traffic signal cycle. Therefore, the proposed development traffic will have a limited impact on the operations of this intersection and no roadway improvements or signal modifications will be required.

Madison Street with Euclid Avenue/Proposed Access Drive

The results of the capacity analyses indicate that the northbound and southbound approaches will operate at LOS C during the weekday morning and evening peak hours under Year 2023 no-build conditions. Under Year 2023 projected conditions, the south leg of Euclid Avenue will be vacated and a full movement access drive into the parking garage will be provided. Based on the results of the capacity analyses, both approaches will operate at LOS C during the peak hours. Under Year 2023 projected conditions and assuming the Madison Street traffic diversion, both approaches will operate at LOS C during the peak hours. Further inspection of the capacity analyses indicates that the westbound left-turn movements into the full movement access drive and the eastbound left-turn movements onto Euclid Avenue will operate at LOS B or better during the peak hours with minimal queues that can be accommodated within the two-way left-turn lane along Madison Street proposed as part of the road diet project. The proposed vacation of Euclid Avenue and the reassignment of the existing traffic volumes will have a minimal impact on traffic conditions and can be accommodated by the immediate nearby intersections. Therefore, the proposed development traffic will have a limited impact on the operations of this intersection and no roadway or traffic control improvements will be required.

Madison Street with Wesley Avenue

The results of the capacity analyses indicate that the northbound and southbound approaches will operate at LOS D or better under Year 2023 no-build conditions and will operate at LOS C or better during both peak hours under Year 2023 projected conditions assuming the Madison Street traffic diversion. As such, no roadway or traffic control improvements will be required.

Oak Park Avenue with Public Alley

The results of the capacity analysis indicate that the eastbound and westbound movements from the public alley onto Oak Park Avenue will operate at LOS D or better. As such, the proposed development coupled with the proposed vacation of Euclid Avenue will have a minimal impact on traffic conditions and the operation of this intersection. Therefore, no intersection or roadway traffic control improvements will be required in conjunction with the proposed development.

Wesley Avenue with Public Alley

The results of the capacity analysis indicate that the eastbound and westbound movements from the public alley onto Wesley Avenue will operate at LOS A. As such, the proposed development coupled with the proposed vacation of Euclid Avenue will have a minimal impact on traffic conditions and the operation of this intersection. Therefore, no intersection or roadway traffic control improvements will be required in conjunction with the proposed development.

Oak Park Avenue with Adams Street

Based on the results of the capacity analyses, all of the critical turning movements at the intersection of Oak Park Avenue with Adams Street will operate at acceptable levels of service and will continue operating at acceptable levels of service with minimal increases in delay under Year 2023 projected conditions. Therefore, no intersection or roadway traffic control improvements will be required in conjunction with the proposed development.

Adams Street with Euclid Avenue

Based on the results of the capacity analyses, the intersection of Adams Street with Euclid Avenue will operate at LOS A and will continue to do so in the future under Year 2023 projected conditions. Therefore, no intersection or roadway traffic control improvements will be required in conjunction with the proposed development.

Adams Street with Wesley Avenue

Based on the results of the capacity analyses, all of the critical turning movements at the intersection of Adams Street with Wesley Avenue will operate at acceptable levels of service and will continue operating at acceptable levels of service with minimal increases in delay under Year 2023 projected conditions. Therefore, no intersection or roadway traffic control improvements will be required in conjunction with the proposed development.

Madison Street with Clarence Avenue

The results of the capacity analyses indicate that the northbound approach will operate at LOS D or better under Year 2023 no-build conditions and will continue to operate at the same LOS under Year 2023 projected conditions assuming the Madison Street traffic diversion. As such, no roadway or traffic control improvements will be required.

Comparison of Alternative Modifications to Wesley Avenue

The Village of Oak Park is currently evaluating several alternative modifications to Wesley Avenue to address any impacts associated with the proposed Euclid Avenue cu-de-sac. It is important to note that the Euclid Avenue traffic traveling to and from Madison Street will be redistributed over several other roads in the neighborhood, including Oak Park Avenue, Wesley Avenue, Clarence Avenue and East Avenue as well as the east-west roads in the neighborhood, limiting the additional traffic on any one road. The following summarizes the three alternative modifications that are currently under evaluation for Wesley Avenue.

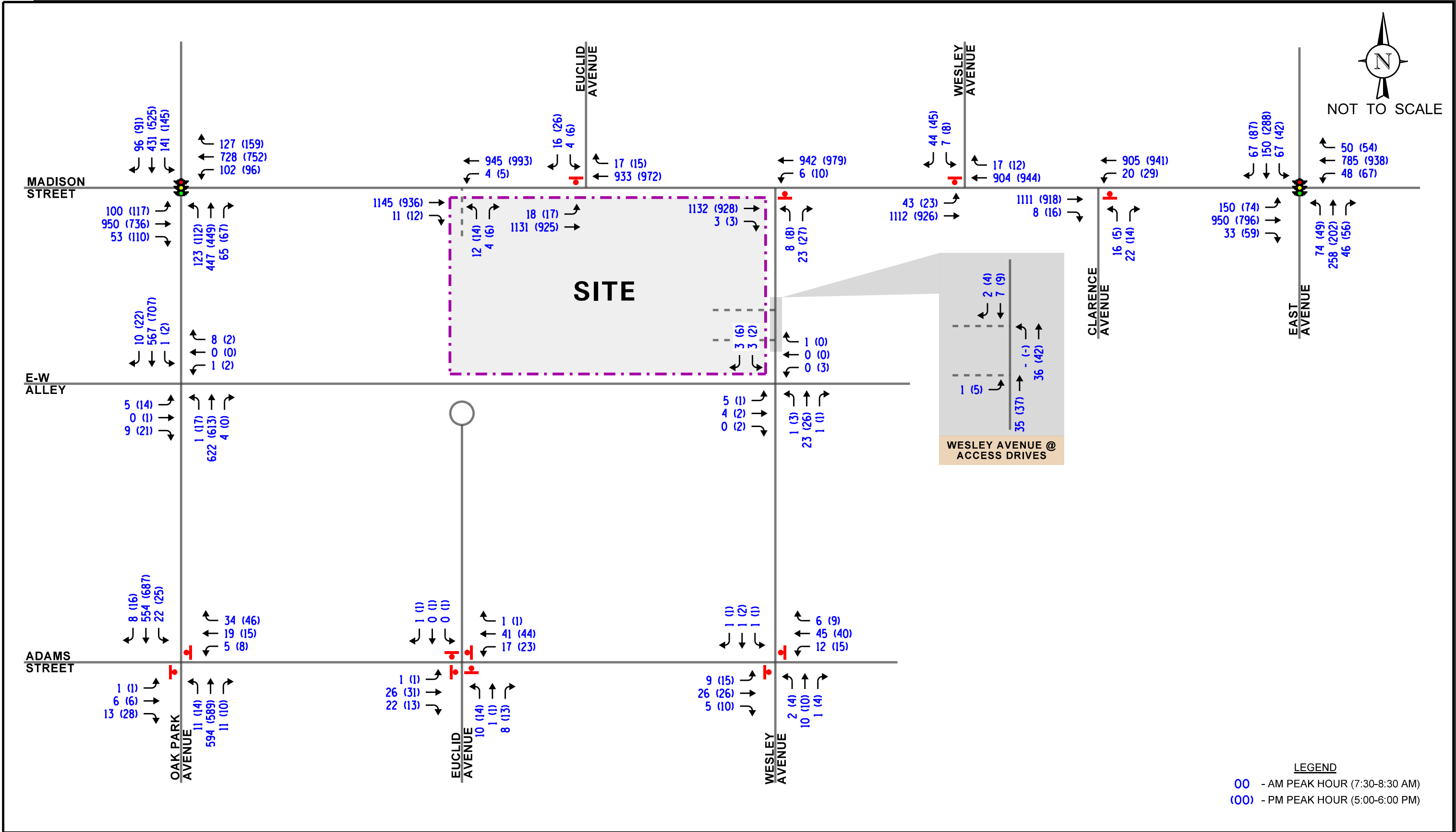
- *Alternative A* proposes no modification to Wesley Avenue (Figure 8A)
- *Alternative B* proposes to install a half closure (bump-out) on Wesley Avenue just south of the public alley which will prohibit southbound traffic south of the alley (**Figure 8B**).
- *Alternative C* proposes to install a full closure (cul-de-sac) on Wesley Avenue just south of the public alley which will prohibit both northbound and southbound traffic south of the alley (**Figure 8C**).

The peak hour traffic volumes from Euclid Avenue and Wesley Avenue was generally redistributed as follows:

- *Alternative A:* Approximately 50 percent of the Euclid Avenue traffic traveling to and from the east on Madison Street was redistributed to Wesley Avenue and 20 percent of the Euclid Avenue traffic traveling to and from the east on Madison Street was redistributed to Clarence Avenue. The rest of the traffic was redistributed to Oak Park Avenue and East Avenue.
- *Alternative B:* Approximately 50 percent of the Euclid Avenue northbound traffic traveling to and from the east on Madison Street was redistributed to Wesley Avenue, 20 percent of the Euclid Avenue northbound traffic traveling to and from the east on Madison Street was redistributed to Clarence Avenue, and 50 percent of the Euclid Avenue and Wesley Avenue southbound traffic traveling to and from the east on Madison Street was redistributed to Clarence Avenue. The rest of the traffic was redistributed to Oak Park Avenue and East Avenue.
- *Alternative C:* Approximately 50 percent of the Euclid Avenue and Wesley Avenue traffic traveling to and from the east on Madison Street was redistributed to Clarence Avenue. The rest of the traffic was redistributed to Oak Park Avenue and East Avenue.

It is important to note that the Village of Oak Park performed a comprehensive study in 2005 that evaluated the impact that diagonal diverters and/or cul-de-sacs on Euclid Avenue and/or Wesley Avenue would have on the other roads in the neighborhood. The results of the Village's study showed a much lower redistribution of traffic to the other local roads than that assumed in this study. However, the higher traffic redistribution was assumed in this study to provide a worst-case scenario.

Tables 6 and 7 summarize the impacts that the redistribution of the Euclid Avenue traffic and the various Wesley Avenue modifications will have on Wesley Avenue and Clarence Avenue assuming each of the three alternatives. The four criteria that were examined include (1) the projected traffic volumes, (2) the capacity and operations of the roads, (3) access to/from the two roads and the overall neighborhood circulation, and (4) emergency access and response time.



PROPOSED
SENIOR LIVING
OAK PARK, ILLINOIS

YEAR 2023 TOTAL PROJECTED TRAFFIC VOLUMES
(ALTERNATE B)



Job No: 19-176 Figure: 8B

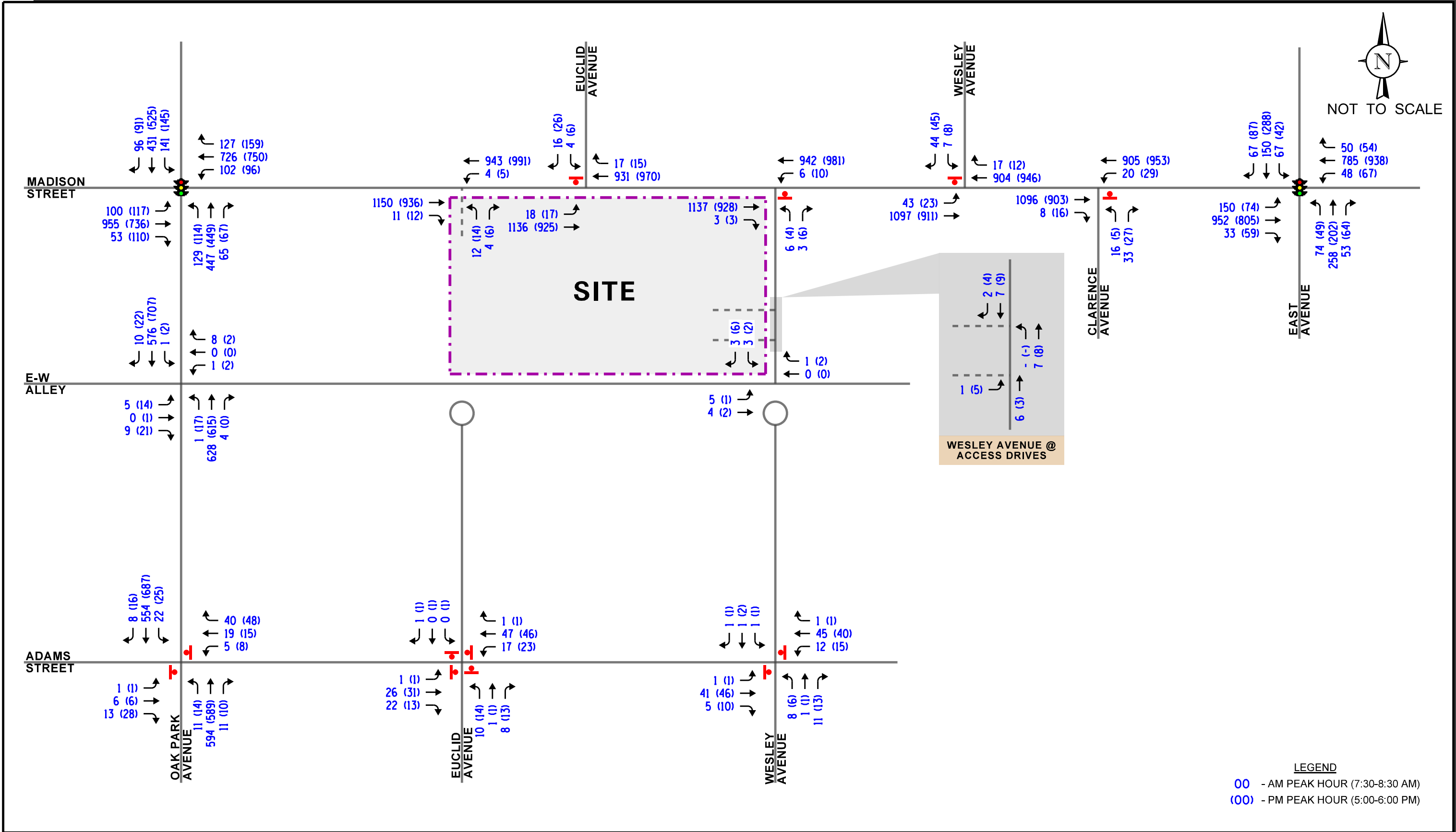


Table 6
COMPARISON OF IMPACT – WESLEY AVENUE

	Alternative A	Alternative B	Alternative C
Traffic Volumes¹			
• Existing Volumes	44 (56) [660]	44 (56) [660]	44 (56) [660]
• Additional Volumes	12 (23) [200]	-19 (-26) [-150]	-38 (-49) [-550]
• Total Volumes	56 (79) [860]	25 (30) [510]	6 (7) [110]
Capacity/Operations			
• Road Segment	Road is projected to operate below its overall capacity	Road is projected to operate well below its overall capacity	Road is projected to operate well below its overall capacity
• Madison Street Intersection	Critical movements to operate at LOS D or better	Critical movements to operate at LOS D or better	Critical movements to operate at LOS D or better
Access To/From Wesley Avenue and Neighborhood Circulation	No Impact	- Increased travel for Madison Street to Wesley Avenue traffic - Increase neighborhood circulation	- Increased travel for all traffic traveling between Madison and Wesley Avenue - Further increased neighborhood circulation
Emergency Access and Response Time	No Impact	No Impact	- No direct access between Madison Street and Wesley Avenue - Increased response times to Wesley Avenue and neighborhood
1. 00 – Morning Peak Hour Volumes (00) – Evening Peak Hour Volumes [000] = Daily Traffic Volume			

Table 7
COMPARISON OF IMPACT – CLARENCE AVENUE

	Alternative A	Alternative B	Alternative C
Traffic Volumes¹			
• Existing Volumes	48 (39) [415]	48 (39) [415]	48 (39) [415]
• Additional Volumes	6 (8) [85]	18 (25) [200]	35 (38) [300]
• Total Volumes	54 (47) [500]	66 (64) [615]	83 (77) [715]
Capacity/Operations			
• Road Segment	Limited Impact on Clarence Avenue	Road is projected to operate well below its overall capacity	Road is projected to operate well below its overall capacity
• Madison Street Intersection	Limited Impact on Clarence Avenue	Critical movements to operate at LOS D or better	Critical movements to operate at LOS D or better
Access To/From Clarence Avenue and Neighborhood Circulation	Limited Impact	• No impact on access to/from Clarence Avenue • Additional neighborhood circulation	• No impact on access to/from Clarence Avenue • Additional neighborhood circulation
Emergency Access and Response Time	No Impact	No Impact	• No Impact on Clarence Avenue • Increased response times to neighborhood
1. 00 – Morning Peak Hour Volumes (00) – Evening Peak Hour Volumes [000] = Daily Traffic Volume			

The following summarizes the primary impacts of the three alternatives

- With the Euclid Avenue cul-de-sac, it is expected that the Euclid Avenue traffic traveling to and from Madison Street will be redistributed over several roads in the neighborhood, including Oak Park Avenue, Wesley Avenue, Clarence Avenue, and East Avenue as well as the east-west roads in the neighborhood, limiting the traffic on any one road in particular.
- Under any alternative, Wesley Avenue and Clarence Avenue are projected to have a modest increase in traffic and the projected traffic volumes are similar to those found on other local roads in Oak Park.
- Both Wesley Avenue and Clarence Avenue have more than sufficient reserve capacity to accommodate the increase in traffic projected under any of the alternatives.
- All the critical movements at the intersections of Wesley Avenue and Clarence Avenue with their respective intersections with Madison Street are projected to continue to operate at acceptable levels of service with the increase in traffic projected under any of the alternatives.
- Under Alternative B (Wesley Avenue southbound closure) and Alternative C (Wesley Avenue cul-de-sac), access between Madison Street and Wesley Avenue will be restricted or totally prohibited which will increase the travel between Madison Street and Wesley Avenue and add to the circulation in the neighborhood.
- Under Alternative C (Wesley Avenue cul-de-sac), all access between Madison Street and Wesley Avenue will be prohibited which will eliminate direct emergency access from Madison Street to Wesley Avenue and the overall neighborhood which will result in increased emergency response times.

It is important to note that as part of the Madison Street road diet project, the Village of Oak Park is developing a traffic calming program to address any negative impacts that the road diet may have on the adjacent local roads. As such, under any of the alternatives, appropriate traffic calming will be installed if it is determined to be necessary.

Parking Analysis

The following section summarizes the results and findings of a parking analysis completed for the proposed senior living development in order to determine the adequacy of the proposed parking supply.

Proposed Parking and Circulation

As previously stated, the proposed development calls for a senior living facility with 76 independent living units, 65 assisted living units, and 33 memory care units. A total of 125 off-street parking spaces will be provided on site, of which five will be designated for guests. Based on the number of parking spaces and units, the parking supply translates to a parking ratio of approximately 0.72 spaces per unit.

ITE Parking Demand

In order to determine the anticipated parking needs of the redevelopment, a review of the 5th Edition of the *Parking Generation Manual* published by ITE was completed. Based on the ITE data the following is the projected peak parking demand for the development:

- Senior Housing – Attached
 - Average - 0.61 spaces per unit.
 - 85th Percentile - 0.67 spaces per unit.
- Assisted Living/Memory Care
 - Average - 0.40 spaces per unit.
 - 85th Percentile - 0.53 spaces per unit.
- Total Demand
 - Average – 85 parking spaces, resulting in a surplus of 37 parking spaces
 - 85th percentile – 104 parking spaces, resulting in a surplus of 18 parking spaces

Given the above, the proposed parking supply will be adequate in accommodating the parking needs of the proposed development.

6. Conclusion

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

- The proposed development will generate a low volume of trips during the weekday morning and evening peak hours.
- The development-generated traffic will not have a significant impact on area roadways or intersections, taking into account the Madison Street road diet.
- The development-generated traffic will add less than one percent of the traffic projected to be traversing the intersection of Madison Street with Oak Park Avenue.
- The vacation of Euclid Avenue from Madison Street south to 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 full movement access off Madison Street at approximately the same location of the south leg of Euclid Avenue will be adequate in accommodating the development-generated traffic.
- The provision of a guest parking lot with access to Wesley Avenue will be adequate and will not have a negative impact on the roadway operation.
- The proposed parking supply of 125 off-street parking spaces including five spaces for guests will be adequate in accommodating the parking demand of the residents, employees and visitors.

Appendix

Traffic Count Summary Sheets
Site Plan
Level of Service Criteria
Capacity Analysis Summary Sheets

Traffic Count Summary Sheets

Madison Street with Oak Park 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: 681417, Location: 41.879768, -87.794261



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

Leg Direction	Oak Park Avenue Southbound						Madison Street Westbound						Oak Park Avenue Northbound						Madison Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23																									
7:00AM	14	63	14	0	91	5	14	117	9	0	140	1	10	55	16	0	81	0	7	89	13	0	109	0	421
7:15AM	13	72	21	0	106	4	10	109	17	0	136	4	7	81	19	0	107	1	8	102	7	0	117	3	466
7:30AM	13	77	18	0	108	1	17	113	15	0	145	6	11	90	22	0	123	2	6	118	9	0	133	2	509
7:45AM	22	81	21	0	124	0	18	133	8	0	159	4	11	114	20	0	145	3	12	111	17	0	140	2	568
Hourly Total	62	293	74	0	429	10	59	472	49	0	580	15	39	340	77	0	456	6	33	420	46	0	499	7	1964
8:00AM	12	94	29	0	135	4	21	119	15	0	155	3	11	83	18	0	112	1	7	102	14	0	123	2	525
8:15AM	19	69	14	0	102	9	21	113	17	0	151	9	9	104	24	0	137	0	4	121	16	0	141	11	531
8:30AM	17	56	8	0	81	4	26	103	7	0	136	8	12	103	25	0	140	2	8	106	20	0	134	5	491
8:45AM	21	74	21	0	116	2	15	107	11	0	133	4	8	77	15	0	100	3	6	89	21	0	116	2	465
Hourly Total	69	293	72	0	434	19	83	442	50	0	575	24	40	367	82	0	489	6	25	418	71	0	514	20	2012
4:00PM	16	114	25	0	155	4	20	112	22	0	154	10	19	105	20	0	144	3	12	134	23	0	169	3	622
4:15PM	6	115	18	0	139	7	18	105	18	0	141	3	16	96	22	0	134	1	10	125	21	0	156	9	570
4:30PM	24	116	24	0	164	2	22	105	15	0	142	5	9	100	17	0	126	0	5	149	25	0	179	7	611
4:45PM	13	122	27	0	162	4	21	101	15	0	137	7	9	93	21	0	123	5	8	136	24	0	168	10	590
Hourly Total	59	467	94	0	620	17	81	423	70	0	574	25	53	394	80	0	527	9	35	544	93	0	672	29	2393
5:00PM	20	121	31	0	172	6	20	105	20	0	145	0	20	110	17	0	147	0	18	184	25	0	227	6	691
5:15PM	25	137	14	0	176	3	31	102	20	0	153	2	12	118	17	0	147	0	9	202	19	0	230	2	706
5:30PM	17	142	27	0	186	3	23	95	17	0	135	4	12	87	18	0	117	0	15	207	19	0	241	3	679
5:45PM	17	136	28	0	181	4	13	86	38	0	137	0	8	129	21	0	158	0	10	175	27	0	212	8	688
Hourly Total	79	536	100	0	715	16	87	388	95	0	570	6	52	444	73	0	569	0	52	768	90	0	910	19	2764
Total	269	1589	340	0	2198	62	310	1725	264	0	2299	70	184	1545	312	0	2041	21	145	2150	300	0	2595	75	9133
% Approach	12.2%	72.3%	15.5%	0%	-	-	13.5%	75.0%	11.5%	0%	-	-	9.0%	75.7%	15.3%	0%	-	-	5.6%	82.9%	11.6%	0%	-	-	-
% Total	2.9%	17.4%	3.7%	0%	24.1%	-	3.4%	18.9%	2.9%	0%	25.2%	-	2.0%	16.9%	3.4%	0%	22.3%	-	1.6%	23.5%	3.3%	0%	28.4%	-	-
Lights	264	1555	336	0	2155	-	308	1671	256	0	2235	-	182	1497	310	0	1989	-	140	2108	296	0	2544	-	8923
% Lights	98.1%	97.9%	98.8%	0%	98.0%	-	99.4%	96.9%	97.0%	0%	97.2%	-	98.9%	96.9%	99.4%	0%	97.5%	-	96.6%	98.0%	98.7%	0%	98.0%	-	97.7%
Single-Unit Trucks	3	11	2	0	16	-	1	33	7	0	41	-	2	9	1	0	12	-	1	30	3	0	34	-	103
% Single-Unit Trucks	1.1%	0.7%	0.6%	0%	0.7%	-	0.3%	1.9%	2.7%	0%	1.8%	-	1.1%	0.6%	0.3%	0%	0.6%	-	0.7%	1.4%	1.0%	0%	1.3%	-	1.1%
Articulated Trucks	0	1	2	0	3	-	0	8	1	0	9	-	0	4	0	0	4	-	1	5	1	0	7	-	23
% Articulated Trucks	0%	0.1%	0.6%	0%	0.1%	-	0%	0.5%	0.4%	0%	0.4%	-	0%	0.3%	0%	0%	0.2%	-	0.7%	0.2%	0.3%	0%	0.3%	-	0.3%
Buses	1	16	0	0	17	-	0	12	0	0	12	-	0	18	1	0	19	-	2	7	0	0	9	-	57
% Buses	0.4%	1.0%	0%	0%	0.8%	-	0%	0.7%	0%	0%	0.5%	-	0%	1.2%	0.3%	0%	0.9%	-	1.4%	0.3%	0%	0%	0.3%	-	0.6%
Bicycles on Road	1	6	0	0	7	-	1	1	0	0	2	-	0	17	0	0	17	-	1	0	0	0	1	-	27
% Bicycles on Road	0.4%	0.4%	0%	0%	0.3%	-	0.3%	0.1%	0%	0%	0.1%	-	0%	1.1%	0%	0%	0.8%	-	0.7%	0%	0%	0%	0%	-	0.3%
Pedestrians	-	-	-	-	-	62	-	-	-	-	-	70	-	-	-	-	-	21	-	-	-	-	-	75	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

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

Madison Street with Oak Park 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)

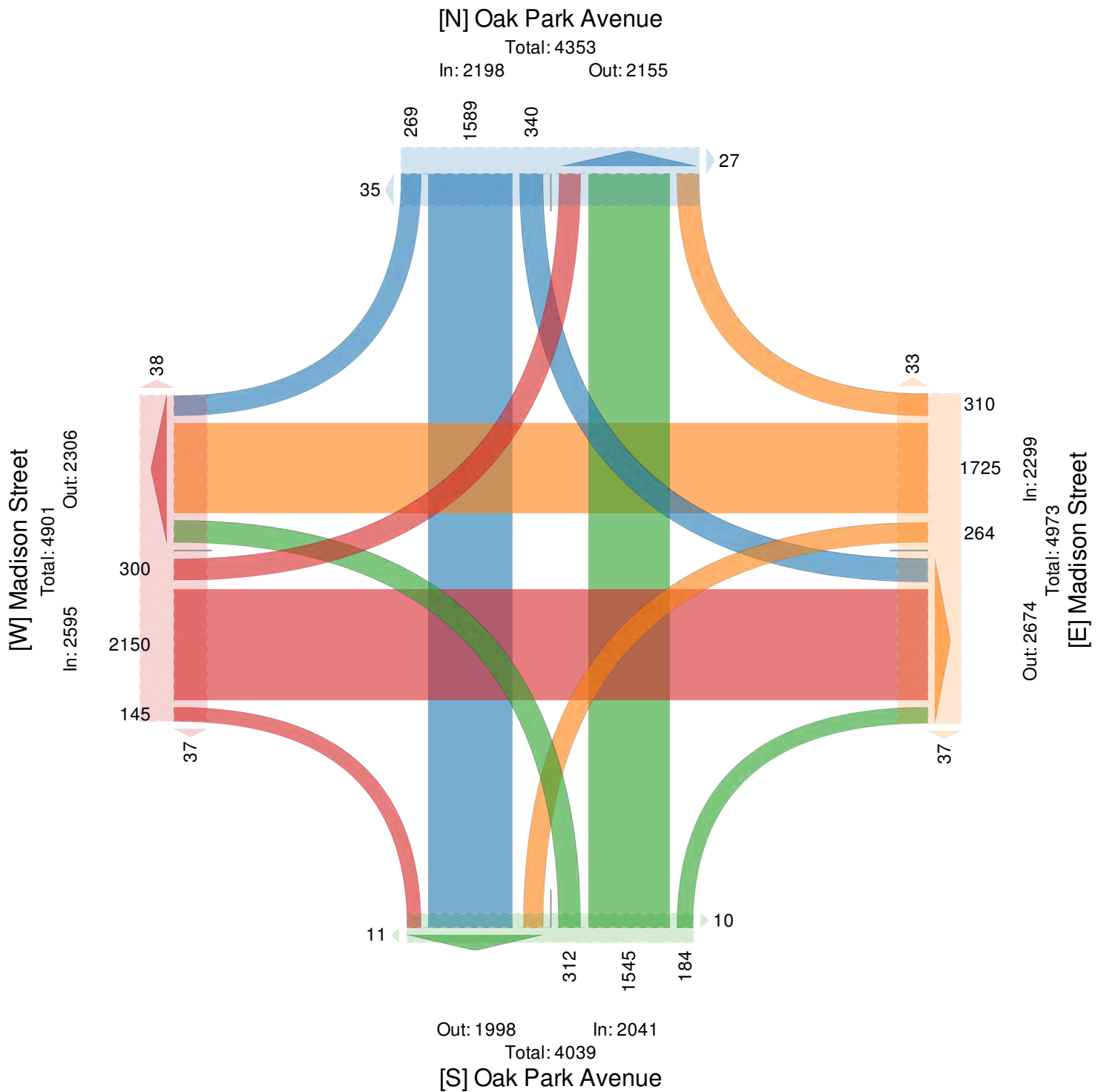
All Movements

ID: 681417, Location: 41.879768, -87.794261



Provided by: Kenig Lindgren O'Hara Aboona,
Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Madison Street with Oak Park 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: 681417, Location: 41.879768, -87.794261



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

Leg Direction	Oak Park Avenue Southbound						Madison Street Westbound						Oak Park Avenue Northbound						Madison Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23 7:30AM	13	77	18	0	108	1	17	113	15	0	145	6	11	90	22	0	123	2	6	118	9	0	133	2	509
7:45AM	22	81	21	0	124	0	18	133	8	0	159	4	11	114	20	0	145	3	12	111	17	0	140	2	568
8:00AM	12	94	29	0	135	4	21	119	15	0	155	3	11	83	18	0	112	1	7	102	14	0	123	2	525
8:15AM	19	69	14	0	102	9	21	113	17	0	151	9	9	104	24	0	137	0	4	121	16	0	141	11	531
Total	66	321	82	0	469	14	77	478	55	0	610	22	42	391	84	0	517	6	29	452	56	0	537	17	2133
% Approach	14.1%	68.4%	17.5%	0%	-	-	12.6%	78.4%	9.0%	0%	-	-	8.1%	75.6%	16.2%	0%	-	-	5.4%	84.2%	10.4%	0%	-	-	-
% Total	3.1%	15.0%	3.8%	0%	22.0%	-	3.6%	22.4%	2.6%	0%	28.6%	-	2.0%	18.3%	3.9%	0%	24.2%	-	1.4%	21.2%	2.6%	0%	25.2%	-	-
PHF	0.739	0.858	0.707	-	0.869	-	0.905	0.898	0.809	-	0.964	-	0.955	0.854	0.875	-	0.889	-	0.583	0.934	0.824	-	0.950	-	0.939
Lights	63	308	79	0	450	-	76	464	51	0	591	-	42	374	84	0	500	-	28	441	54	0	523	-	2064
% Lights	95.5%	96.0%	96.3%	0%	95.9%	-	98.7%	97.1%	92.7%	0%	96.9%	-	100%	95.7%	100%	0%	96.7%	-	96.6%	97.6%	96.4%	0%	97.4%	-	96.8%
Single-Unit Trucks	1	3	1	0	5	-	0	10	3	0	13	-	0	1	0	0	1	-	0	6	2	0	8	-	27
% Single-Unit Trucks	1.5%	0.9%	1.2%	0%	1.1%	-	0%	2.1%	5.5%	0%	2.1%	-	0%	0.3%	0%	0%	0.2%	-	0%	1.3%	3.6%	0%	1.5%	-	1.3%
Articulated Trucks	0	0	2	0	2	-	0	2	1	0	3	-	0	2	0	0	2	-	0	1	0	0	1	-	8
% Articulated Trucks	0%	0%	2.4%	0%	0.4%	-	0%	0.4%	1.8%	0%	0.5%	-	0%	0.5%	0%	0%	0.4%	-	0%	0.2%	0%	0%	0.2%	-	0.4%
Buses	1	8	0	0	9	-	0	2	0	0	2	-	0	9	0	0	9	-	0	4	0	0	4	-	24
% Buses	1.5%	2.5%	0%	0%	1.9%	-	0%	0.4%	0%	0%	0.3%	-	0%	2.3%	0%	0%	1.7%	-	0%	0.9%	0%	0%	0.7%	-	1.1%
Bicycles on Road	1	2	0	0	3	-	1	0	0	0	1	-	0	5	0	0	5	-	1	0	0	0	1	-	10
% Bicycles on Road	1.5%	0.6%	0%	0%	0.6%	-	1.3%	0%	0%	0%	0.2%	-	0%	1.3%	0%	0%	1.0%	-	3.4%	0%	0%	0%	0.2%	-	0.5%
Pedestrians	-	-	-	-	-	14	-	-	-	-	-	22	-	-	-	-	-	6	-	-	-	-	-	17	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	

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

Madison Street with Oak Park 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)

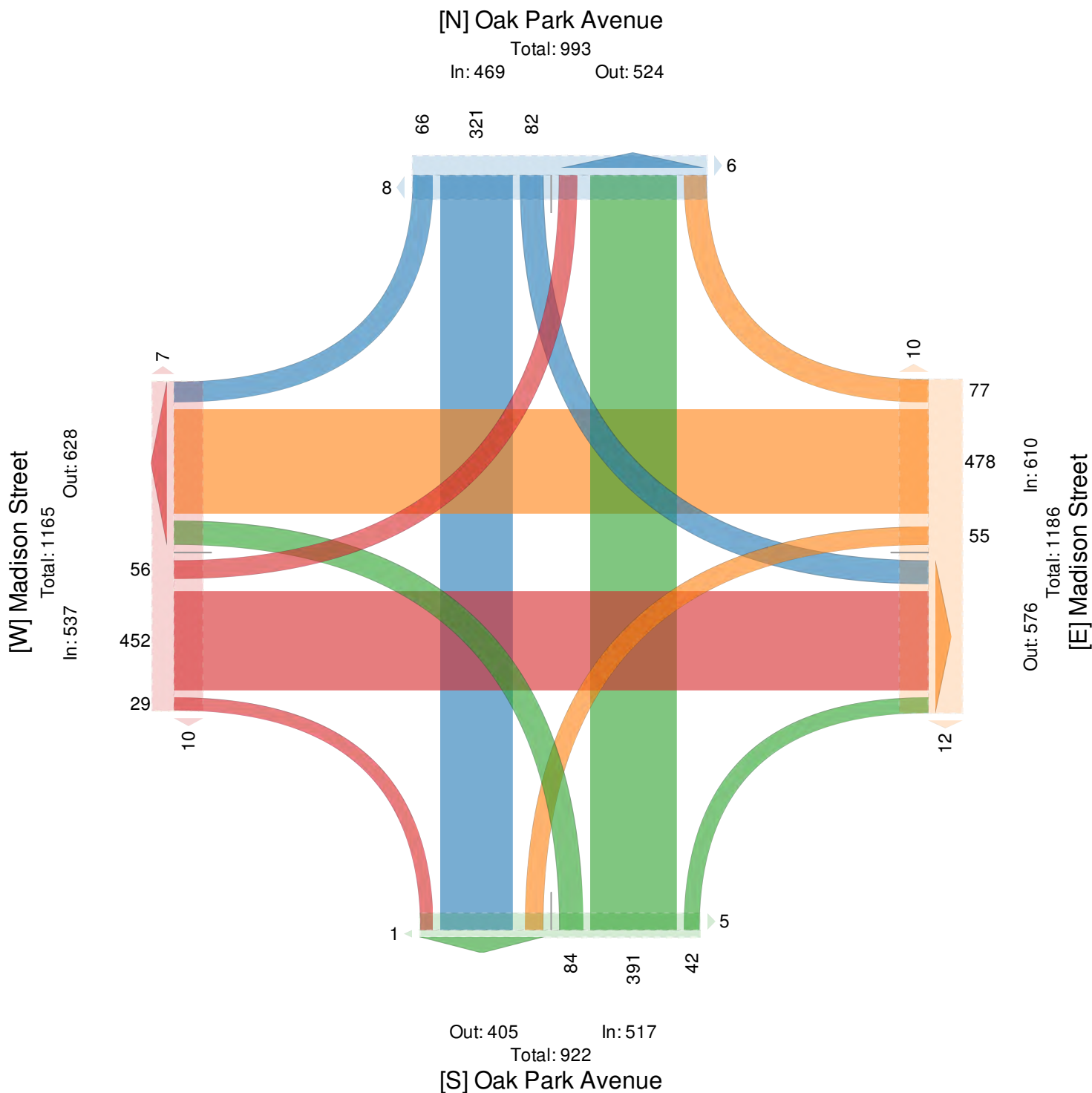
All Movements

ID: 681417, Location: 41.879768, -87.794261



Provided by: Kenig Lindgren O'Hara Aboona,
Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Madison Street with Oak Park 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: 681417, Location: 41.879768, -87.794261



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

Leg Direction	Oak Park Avenue Southbound						Madison Street Westbound						Oak Park Avenue Northbound						Madison Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23 5:00PM	20	121	31	0	172	6	20	105	20	0	145	0	20	110	17	0	147	0	18	184	25	0	227	6	691
5:15PM	25	137	14	0	176	3	31	102	20	0	153	2	12	118	17	0	147	0	9	202	19	0	230	2	706
5:30PM	17	142	27	0	186	3	23	95	17	0	135	4	12	87	18	0	117	0	15	207	19	0	241	3	679
5:45PM	17	136	28	0	181	4	13	86	38	0	137	0	8	129	21	0	158	0	10	175	27	0	212	8	688
Total	79	536	100	0	715	16	87	388	95	0	570	6	52	444	73	0	569	0	52	768	90	0	910	19	2764
% Approach	11.0%	75.0%	14.0%	0%	-	-	15.3%	68.1%	16.7%	0%	-	-	9.1%	78.0%	12.8%	0%	-	-	5.7%	84.4%	9.9%	0%	-	-	-
% Total	2.9%	19.4%	3.6%	0%	25.9%	-	3.1%	14.0%	3.4%	0%	20.6%	-	1.9%	16.1%	2.6%	0%	20.6%	-	1.9%	27.8%	3.3%	0%	32.9%	-	-
PHF	0.790	0.938	0.806	-	0.957	-	0.702	0.924	0.625	-	0.931	-	0.650	0.857	0.869	-	0.898	-	0.722	0.928	0.833	-	0.944	-	0.981
Lights	79	528	100	0	707	-	87	374	94	0	555	-	52	434	73	0	559	-	51	764	90	0	905	-	2726
% Lights	100%	98.5%	100%	0%	98.9%	-	100%	96.4%	98.9%	0%	97.4%	-	100%	97.7%	100%	0%	98.2%	-	98.1%	99.5%	100%	0%	99.5%	-	98.6%
Single-Unit Trucks	0	2	0	0	2	-	0	8	1	0	9	-	0	1	0	0	1	-	0	1	0	0	1	-	13
% Single-Unit Trucks	0%	0.4%	0%	0%	0.3%	-	0%	2.1%	1.1%	0%	1.6%	-	0%	0.2%	0%	0%	0.2%	-	0%	0.1%	0%	0%	0.1%	-	0.5%
Articulated Trucks	0	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	0	-	0	1	0	0	1	-	4
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0.8%	0%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0%	0.1%	0%	0%	0.1%	-	0.1%
Buses	0	3	0	0	3	-	0	3	0	0	3	-	0	4	0	0	4	-	1	2	0	0	3	-	13
% Buses	0%	0.6%	0%	0%	0.4%	-	0%	0.8%	0%	0%	0.5%	-	0%	0.9%	0%	0%	0.7%	-	1.9%	0.3%	0%	0%	0.3%	-	0.5%
Bicycles on Road	0	3	0	0	3	-	0	0	0	0	0	-	0	5	0	0	5	-	0	0	0	0	0	-	8
% Bicycles on Road	0%	0.6%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	1.1%	0%	0%	0.9%	-	0%	0%	0%	0%	0%	-	0.3%
Pedestrians	-	-	-	-	-	16	-	-	-	-	-	6	-	-	-	-	-	0	-	-	-	-	-	19	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	100%	

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

Madison Street with Oak Park 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)

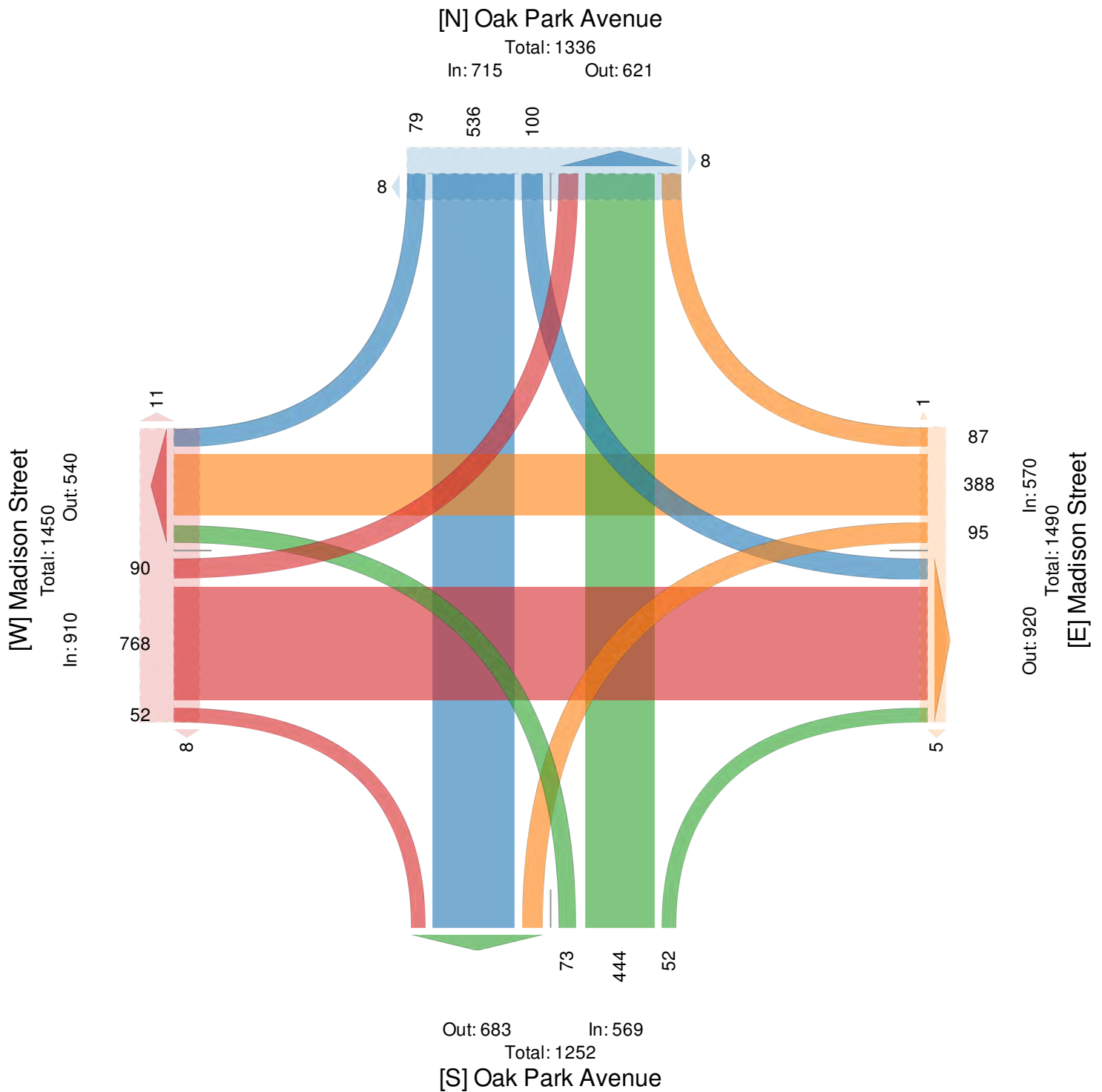
All Movements

ID: 681417, Location: 41.879768, -87.794261



Provided by: Kenig Lindgren O'Hara Aboona,
Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Madison Street with Euclid 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: 681429, Location: 41.879772, -87.792802



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

Leg Direction	Euclid Avenue Southbound						Madison Street Westbound						Euclid Avenue Northbound						Madison Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23																									
7:00AM	2	0	2	0	4	3	3	134	1	0	138	0	2	2	0	0	4	0	1	110	0	0	111	0	257
7:15AM	7	0	1	0	8	1	4	133	2	0	139	0	2	0	1	0	3	3	1	126	0	0	127	0	277
7:30AM	1	1	0	0	2	3	1	147	2	0	150	1	3	3	0	0	6	5	1	149	1	0	151	0	309
7:45AM	3	0	2	0	5	1	8	155	2	0	165	0	2	2	0	0	4	1	1	139	2	0	142	0	316
Hourly Total	13	1	5	0	19	8	16	569	7	0	592	1	9	7	1	0	17	9	4	524	3	0	531	0	1159
8:00AM	1	0	2	0	3	1	6	148	3	0	157	1	2	4	0	0	6	4	7	139	5	0	151	0	317
8:15AM	7	3	0	0	10	3	2	144	0	0	146	0	2	1	0	0	3	4	1	151	0	0	152	1	311
8:30AM	2	0	0	0	2	1	1	133	2	0	136	0	1	1	0	0	2	3	2	130	0	0	132	0	272
8:45AM	4	2	0	0	6	1	7	132	3	1	143	1	3	1	1	0	5	3	2	117	2	0	121	0	275
Hourly Total	14	5	2	0	21	6	16	557	8	1	582	2	8	7	1	0	16	14	12	537	7	0	556	1	1175
4:00PM	5	3	1	0	9	3	2	149	3	0	154	0	3	3	1	0	7	4	1	182	0	0	183	0	353
4:15PM	4	1	2	0	7	4	8	144	3	0	155	0	2	1	0	0	3	0	0	166	0	0	166	0	331
4:30PM	7	0	2	0	9	2	7	137	0	0	144	0	6	2	0	0	8	2	2	176	1	0	179	0	340
4:45PM	4	1	2	0	7	4	4	139	1	0	144	0	2	0	1	0	3	2	2	176	0	0	178	1	332
Hourly Total	20	5	7	0	32	13	21	569	7	0	597	0	13	6	2	0	21	8	5	700	1	0	706	1	1356
5:00PM	3	1	1	0	5	1	3	149	2	0	154	0	5	2	0	0	7	1	2	190	0	0	192	0	358
5:15PM	3	5	0	0	8	4	4	162	2	0	168	0	9	4	1	0	14	0	1	184	2	0	187	0	377
5:30PM	5	0	3	0	8	1	6	144	2	0	152	0	1	4	0	0	5	0	2	189	1	0	192	0	357
5:45PM	6	3	2	0	11	2	2	150	1	0	153	0	0	3	0	0	3	1	4	178	1	0	183	0	350
Hourly Total	17	9	6	0	32	8	15	605	7	0	627	0	15	13	1	0	29	2	9	741	4	0	754	0	1442
Total	64	20	20	0	104	35	68	2300	29	1	2398	3	45	33	5	0	83	33	30	2502	15	0	2547	2	5132
% Approach	61.5%	19.2%	19.2%	0%	-	-	2.8%	95.9%	1.2%	0%	-	-	54.2%	39.8%	6.0%	0%	-	-	1.2%	98.2%	0.6%	0%	-	-	-
% Total	1.2%	0.4%	0.4%	0%	2.0%	-	1.3%	44.8%	0.6%	0%	46.7%	-	0.9%	0.6%	0.1%	0%	1.6%	-	0.6%	48.8%	0.3%	0%	49.6%	-	-
Lights	61	16	19	0	96	-	67	2234	28	1	2330	-	45	28	5	0	78	-	28	2455	14	0	2497	-	5001
% Lights	95.3%	80.0%	95.0%	0%	92.3%	-	98.5%	97.1%	96.6%	100%	97.2%	-	100%	84.8%	100%	0%	94.0%	-	93.3%	98.1%	93.3%	0%	98.0%	-	97.4%
Single-Unit Trucks	2	0	0	0	2	-	1	46	0	0	47	-	0	0	0	0	0	-	1	32	0	0	33	-	82
% Single-Unit Trucks	3.1%	0%	0%	0%	1.9%	-	1.5%	2.0%	0%	0%	2.0%	-	0%	0%	0%	0%	0%	-	3.3%	1.3%	0%	0%	1.3%	-	1.6%
Articulated Trucks	0	0	0	0	0	-	0	5	0	0	5	-	0	0	0	0	0	-	0	4	0	0	4	-	9
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.2%	-	0.2%
Buses	0	0	0	0	0	-	0	12	1	0	13	-	0	0	0	0	0	-	0	10	0	0	10	-	23
% Buses	0%	0%	0%	0%	0%	-	0%	0.5%	3.4%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.4%	-	0.4%
Bicycles on Road	1	4	1	0	6	-	0	3	0	0	3	-	0	5	0	0	5	-	1	1	1	0	3	-	17
% Bicycles on Road	1.6%	20.0%	5.0%	0%	5.8%	-	0%	0.1%	0%	0%	0.1%	-	0%	15.2%	0%	0%	6.0%	-	3.3%	0%	6.7%	0%	0.1%	-	0.3%
Pedestrians	-	-	-	-	-	35	-	-	-	-	-	3	-	-	-	-	-	33	-	-	-	-	-	2	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

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

Madison Street with Euclid 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: 681429, Location: 41.879772, -87.792802



Provided by: Kenig Lindgren O'Hara Aboona, Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

[N] Euclid Avenue

Total: 220

In: 104 Out: 116

64 20 20

22

13

[W] Madison Street

Total: 4916
In: 2547 Out: 2369

15

2502

30

68

2300

29

1

Total: 4966
In: 2398 Out: 2568

[E] Madison Street

15

5 3 4 5

18

Out: 79 In: 83
Total: 162

[S] Euclid Avenue

Madison Street with Euclid 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: 681429, Location: 41.879772, -87.792802



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

Leg Direction	Euclid Avenue Southbound						Madison Street Westbound						Euclid Avenue Northbound						Madison Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23 7:30AM	1	1	0	0	2	3	1	147	2	0	150	1	3	3	0	0	6	5	1	149	1	0	151	0	309
7:45AM	3	0	2	0	5	1	8	155	2	0	165	0	2	2	0	0	4	1	1	139	2	0	142	0	316
8:00AM	1	0	2	0	3	1	6	148	3	0	157	1	2	4	0	0	6	4	7	139	5	0	151	0	317
8:15AM	7	3	0	0	10	3	2	144	0	0	146	0	2	1	0	0	3	4	1	151	0	0	152	1	311
Total	12	4	4	0	20	8	17	594	7	0	618	2	9	10	0	0	19	14	10	578	8	0	596	1	1253
% Approach	60.0%	20.0%	20.0%	0%	-	-	2.8%	96.1%	1.1%	0%	-	-	47.4%	52.6%	0%	0%	-	-	1.7%	97.0%	1.3%	0%	-	-	-
% Total	1.0%	0.3%	0.3%	0%	1.6%	-	1.4%	47.4%	0.6%	0%	49.3%	-	0.7%	0.8%	0%	0%	1.5%	-	0.8%	46.1%	0.6%	0%	47.6%	-	-
PHF	0.429	0.333	0.500	-	0.500	-	0.531	0.963	0.583	-	0.941	-	0.750	0.750	-	-	0.750	-	0.375	0.955	0.438	-	0.975	-	0.994
Lights	12	4	4	0	20	-	16	573	7	0	596	-	9	9	0	0	18	-	9	563	7	0	579	-	1213
% Lights	100%	100%	100%	0%	100%	-	94.1%	96.5%	100%	0%	96.4%	-	100%	90.0%	0%	0%	94.7%	-	90.0%	97.4%	87.5%	0%	97.1%	-	96.8%
Single-Unit Trucks	0	0	0	0	0	-	1	16	0	0	17	-	0	0	0	0	0	-	0	8	0	0	8	-	25
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	5.9%	2.7%	0%	0%	2.8%	-	0%	0%	0%	0%	0%	-	0%	1.4%	0%	0%	1.3%	-	2.0%
Articulated Trucks	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	0	1	0	0	1	-	2
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.2%	-	0.2%
Buses	0	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	0	-	0	5	0	0	5	-	8
% Buses	0%	0%	0%	0%	0%	-	0%	0.5%	0%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0%	0.9%	0%	0%	0.8%	-	0.6%
Bicycles on Road	0	0	0	0	0	-	0	1	0	0	1	-	0	1	0	0	1	-	1	1	1	0	3	-	5
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.2%	-	0%	10.0%	0%	0%	5.3%	-	10.0%	0.2%	12.5%	0%	0.5%	-	0.4%
Pedestrians	-	-	-	-	-	8	-	-	-	-	-	2	-	-	-	-	-	14	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

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

Madison Street with Euclid 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: 681429, Location: 41.879772, -87.792802



Provided by: Kenig Lindgren O'Hara Aboona,
Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

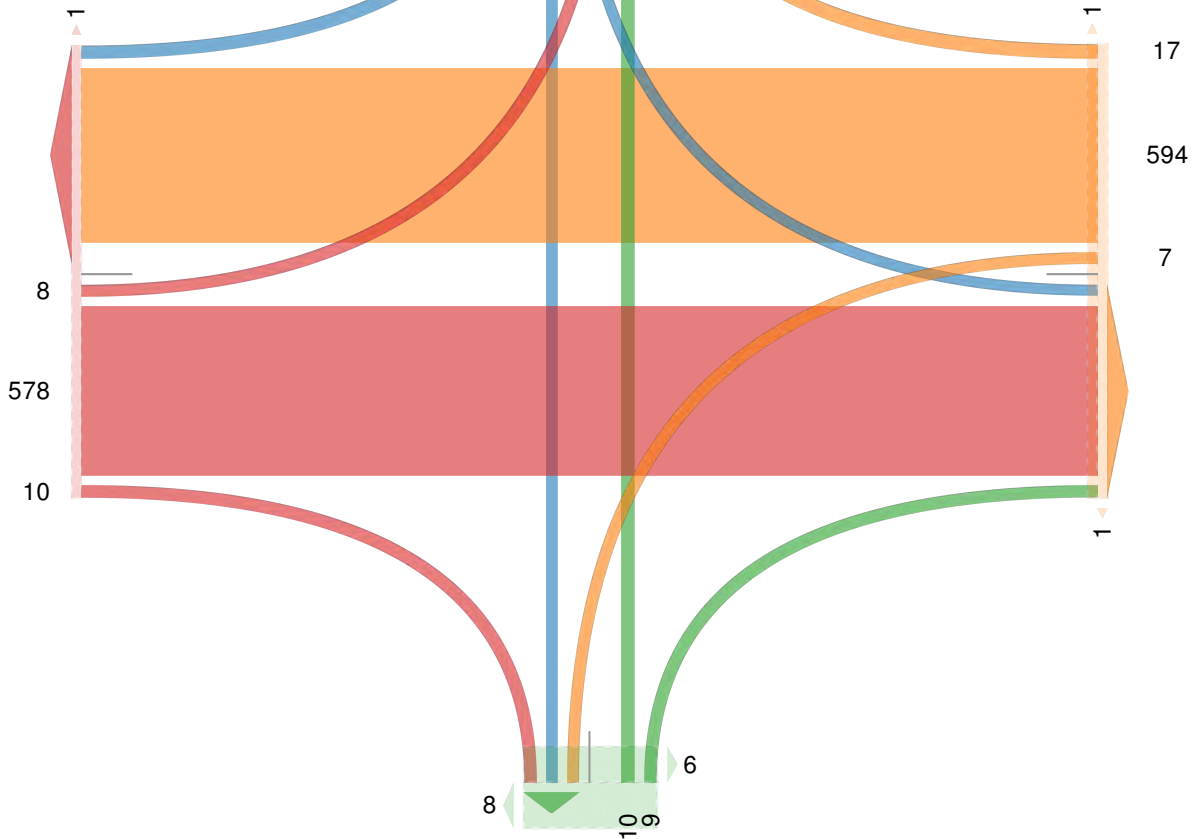
[N] Euclid Avenue

Total: 55
In: 20 Out: 35

12
4 4

4 4

[W] Madison Street
Total: 1202
In: 596 Out: 606



Out: 21 In: 19
Total: 40
[S] Euclid Avenue

Madison Street with Euclid 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: 681429, Location: 41.879772, -87.792802



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

Leg Direction	Euclid Avenue Southbound						Madison Street Westbound						Euclid Avenue Northbound						Madison Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23 5:00PM	3	1	1	0	5	1	3	149	2	0	154	0	5	2	0	0	7	1	2	190	0	0	192	0	358
5:15PM	3	5	0	0	8	4	4	162	2	0	168	0	9	4	1	0	14	0	1	184	2	0	187	0	377
5:30PM	5	0	3	0	8	1	6	144	2	0	152	0	1	4	0	0	5	0	2	189	1	0	192	0	357
5:45PM	6	3	2	0	11	2	2	150	1	0	153	0	0	3	0	0	3	1	4	178	1	0	183	0	350
Total	17	9	6	0	32	8	15	605	7	0	627	0	15	13	1	0	29	2	9	741	4	0	754	0	1442
% Approach	53.1%	28.1%	18.8%	0%	-	-	2.4%	96.5%	1.1%	0%	-	-	51.7%	44.8%	3.4%	0%	-	-	1.2%	98.3%	0.5%	0%	-	-	-
% Total	1.2%	0.6%	0.4%	0%	2.2%	-	1.0%	42.0%	0.5%	0%	43.5%	-	1.0%	0.9%	0.1%	0%	2.0%	-	0.6%	51.4%	0.3%	0%	52.3%	-	-
PHF	0.667	0.417	0.500	-	0.614	-	0.625	0.934	0.875	-	0.933	-	0.417	0.688	0.250	-	0.482	-	0.563	0.975	0.500	-	0.982	-	0.962
Lights	16	5	6	0	27	-	15	590	6	0	611	-	15	11	1	0	27	-	9	734	4	0	747	-	1412
% Lights	94.1%	55.6%	100%	0%	84.4%	-	100%	97.5%	85.7%	0%	97.4%	-	100%	84.6%	100%	0%	93.1%	-	100%	99.1%	100%	0%	99.1%	-	97.9%
Single-Unit Trucks	0	0	0	0	0	-	0	8	0	0	8	-	0	0	0	0	0	-	0	2	0	0	2	-	10
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	0%	1.3%	0%	0%	1.3%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	0.7%
Articulated Trucks	0	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	0	-	0	2	0	0	2	-	5
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0.5%	0%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0%	0.3%	0%	0%	0.3%	-	0.3%
Buses	0	0	0	0	0	-	0	4	1	0	5	-	0	0	0	0	0	-	0	3	0	0	3	-	8
% Buses	0%	0%	0%	0%	0%	-	0%	0.7%	14.3%	0%	0.8%	-	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.4%	-	0.6%
Bicycles on Road	1	4	0	0	5	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	7
% Bicycles on Road	5.9%	44.4%	0%	0%	15.6%	-	0%	0%	0%	0%	0%	-	0%	15.4%	0%	0%	6.9%	-	0%	0%	0%	0%	0%	-	0.5%
Pedestrians	-	-	-	-	-	8	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	

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

Madison Street with Euclid 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: 681429, Location: 41.879772, -87.792802



Provided by: Kenig Lindgren O'Hara Aboona,
Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

[N] Euclid Avenue

Total: 64
In: 32 Out: 32

17 9 6
5 3

[W] Madison Street
Total: 1377
In: 754 Out: 623

4
741
9

15
605
7
[E] Madison Street
Total: 1389
In: 627 Out: 762

Out: 25 In: 29
Total: 54
[S] Euclid Avenue

1 13 15
2

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					
Time	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	Int
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

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

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

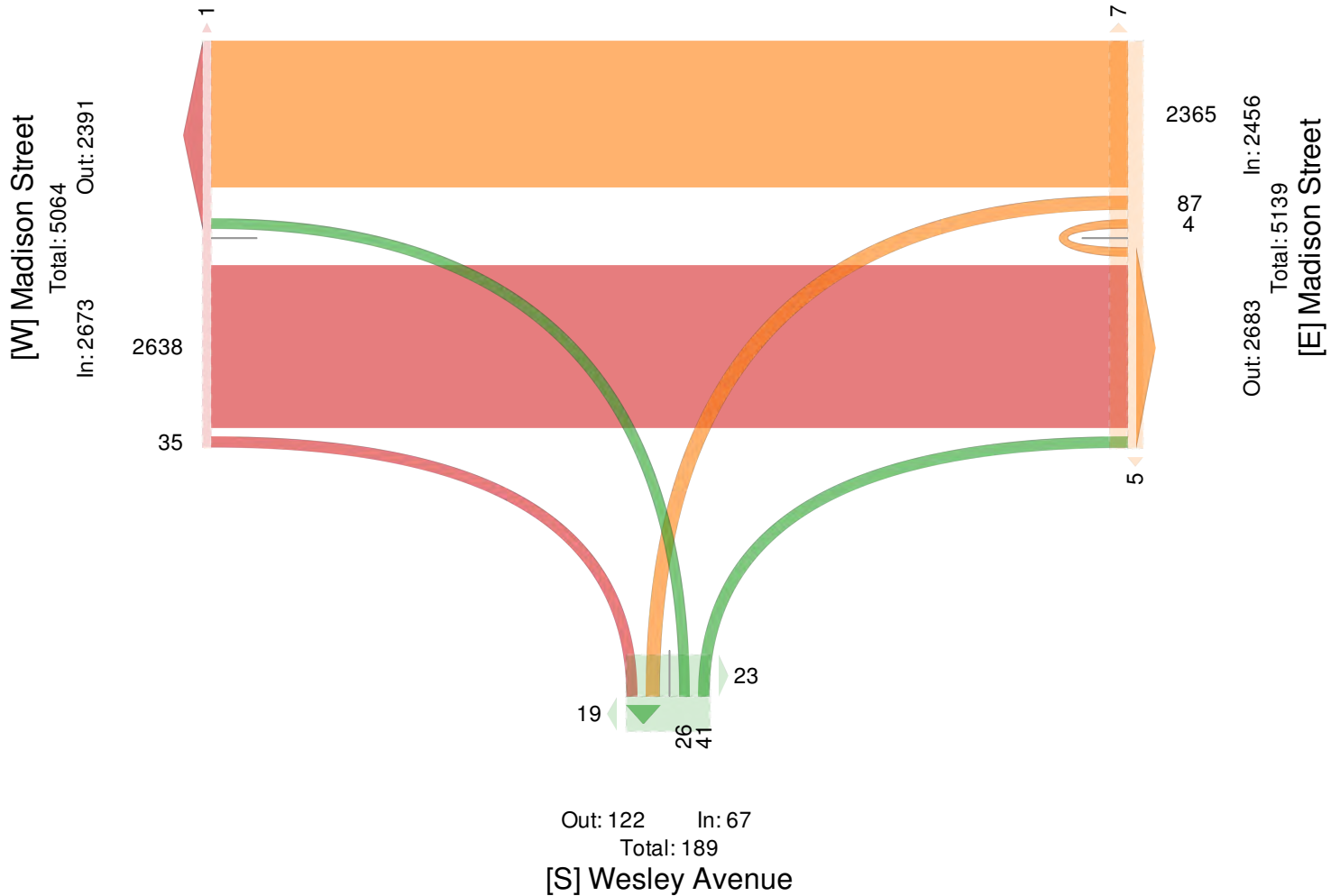
All Movements

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



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					
Time	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	Int
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

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

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

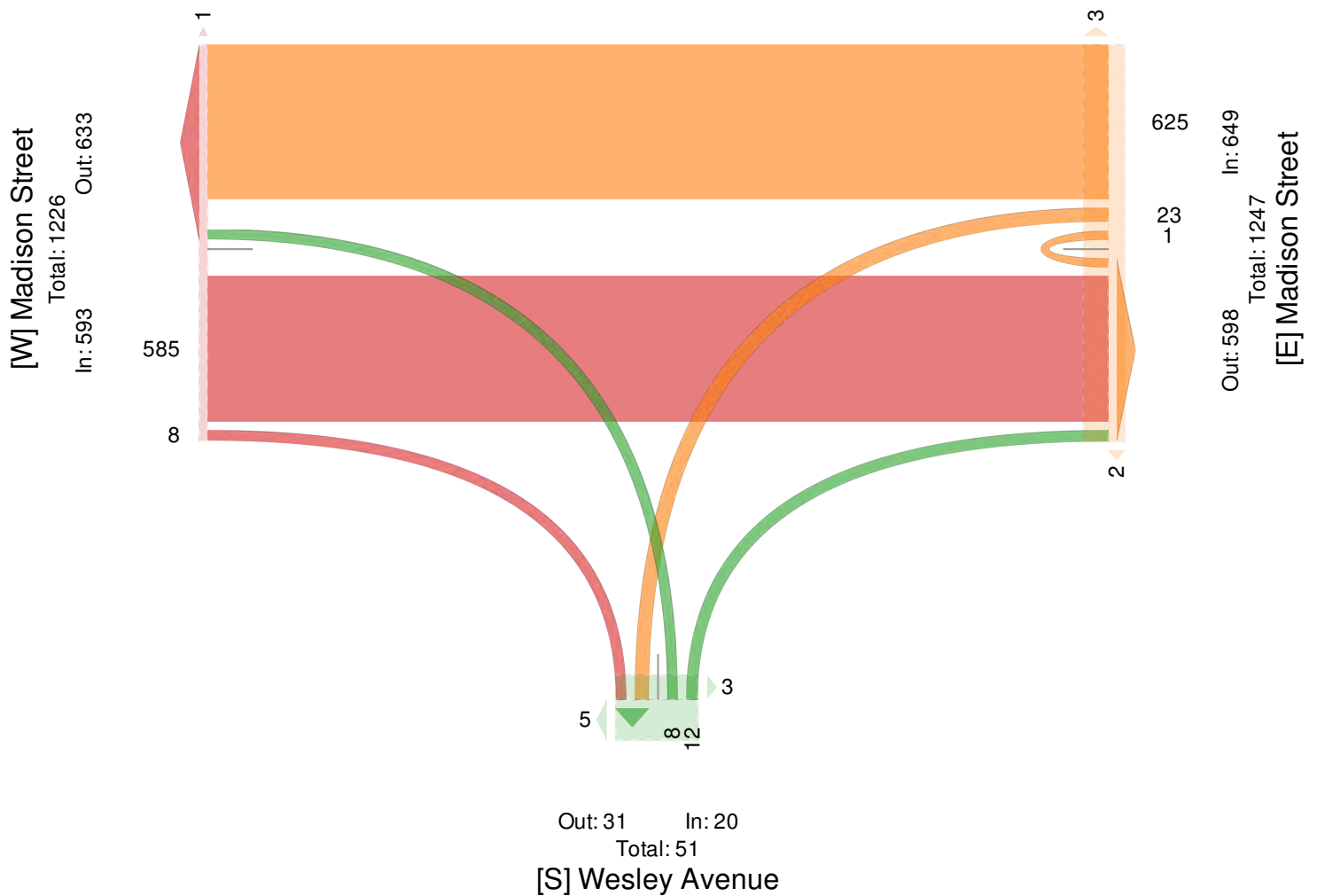
All Movements

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



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					
Time	T	L	U	App	Ped*	R	L	U	App	Ped*	R	T	U	App	Ped*	Int
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

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)

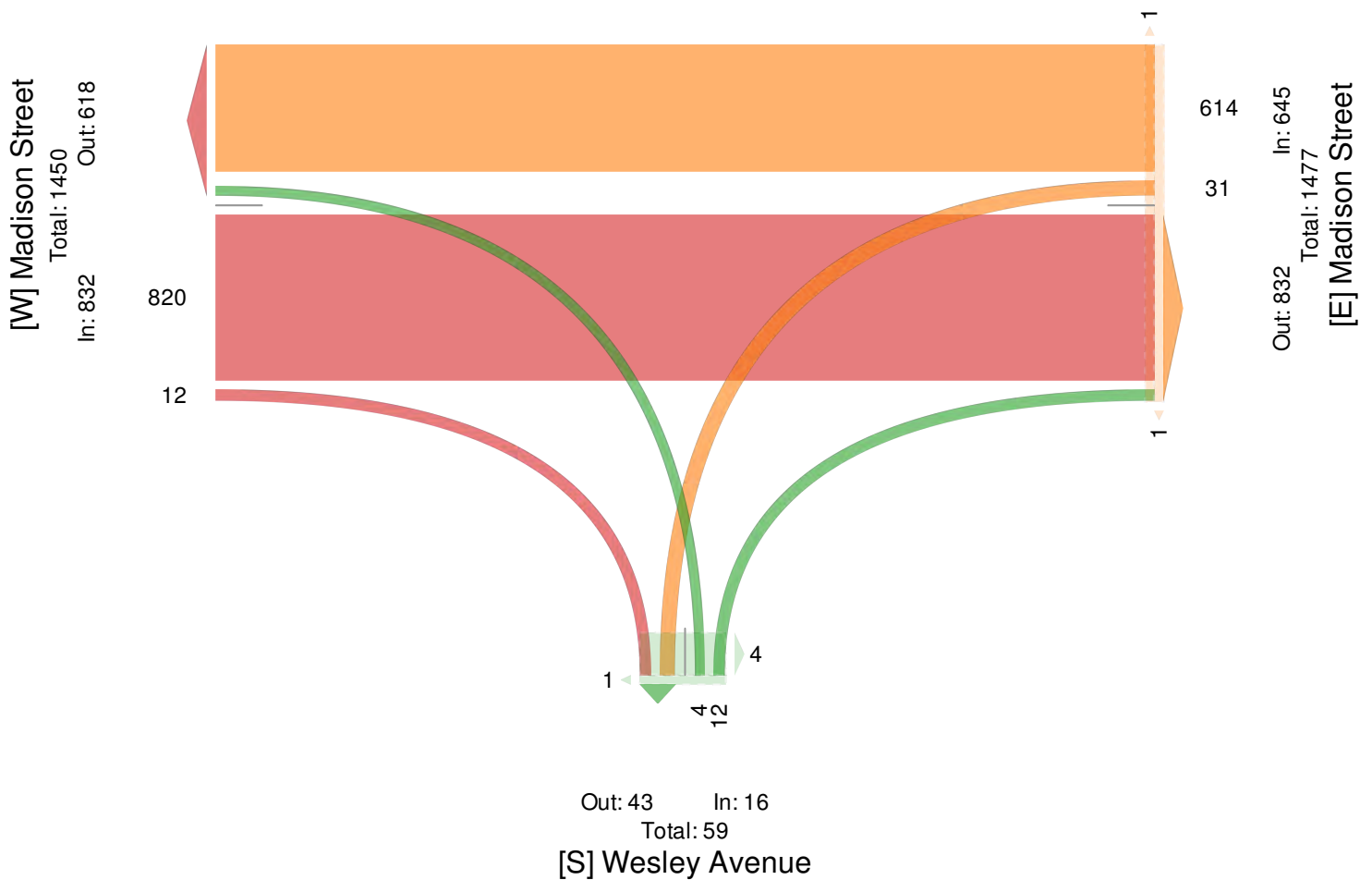
All Movements

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



Oak Park Avenue with Public Alley - 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: 681424, Location: 41.87926, -87.794237



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

Leg Direction	Oak Park Avenue Southbound						Public Alley Westbound						Oak Park Avenue Northbound						Public Alley Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23																									
7:00AM	0	72	0	0	72	0	0	0	0	0	0	3	0	80	2	0	82	2	2	0	0	0	2	3	156
7:15AM	2	95	0	0	97	0	1	0	0	0	1	2	0	101	3	0	104	0	0	1	0	0	1	4	203
7:30AM	1	96	0	0	97	0	2	0	0	0	2	7	0	115	0	0	115	0	2	0	2	0	4	3	218
7:45AM	5	98	0	0	103	0	3	0	0	0	3	6	0	144	1	0	145	0	2	0	1	0	3	0	254
Hourly Total	8	361	0	0	369	0	6	0	0	0	6	18	0	440	6	0	446	2	6	1	3	0	10	10	831
8:00AM	2	117	0	0	119	0	2	0	0	0	2	0	0	116	0	0	116	0	1	0	1	0	2	0	239
8:15AM	2	92	0	0	94	0	1	0	0	0	1	4	0	132	0	0	132	0	4	0	1	0	5	3	232
8:30AM	3	67	0	0	70	0	1	0	0	0	1	4	1	134	2	0	137	0	1	0	2	0	3	2	211
8:45AM	0	85	0	0	85	0	0	0	0	0	0	4	1	108	1	0	110	0	3	0	0	0	3	2	198
Hourly Total	7	361	0	0	368	0	4	0	0	0	4	12	2	490	3	0	495	0	9	0	4	0	13	7	880
4:00PM	7	153	0	0	160	0	0	0	0	0	0	4	0	150	2	0	152	5	6	0	2	0	8	0	320
4:15PM	8	144	0	0	152	0	1	0	0	0	1	1	0	129	3	0	132	0	4	1	2	0	7	4	292
4:30PM	3	145	0	0	148	0	1	0	0	0	1	4	0	116	4	0	120	1	5	2	4	0	11	2	280
4:45PM	3	148	0	0	151	0	0	0	0	0	0	5	0	121	3	1	125	0	4	0	3	0	7	4	283
Hourly Total	21	590	0	0	611	0	2	0	0	0	2	14	0	516	12	1	529	6	19	3	11	0	33	10	1175
5:00PM	3	143	0	0	146	0	1	0	0	0	1	2	0	155	3	0	158	1	7	0	2	0	9	4	314
5:15PM	7	141	0	0	148	0	0	1	0	0	1	7	0	142	4	0	146	0	7	0	6	0	13	4	308
5:30PM	3	165	0	0	168	0	0	0	0	0	0	5	0	124	3	0	127	0	4	1	3	0	8	5	303
5:45PM	9	153	0	0	162	0	0	0	0	0	0	2	0	159	7	0	166	0	3	0	3	0	6	3	334
Hourly Total	22	602	0	0	624	0	1	1	0	0	2	16	0	580	17	0	597	1	21	1	14	0	36	16	1259
Total	58	1914	0	0	1972	0	13	1	0	0	14	60	2	2026	38	1	2067	9	55	5	32	0	92	43	4145
% Approach	2.9%	97.1%	0%	0%	-	-	92.9%	7.1%	0%	0%	-	-	0.1%	98.0%	1.8%	0%	-	-	59.8%	5.4%	34.8%	0%	-	-	-
% Total	1.4%	46.2%	0%	0%	47.6%	-	0.3%	0%	0%	0%	0.3%	-	0%	48.9%	0.9%	0%	49.9%	-	1.3%	0.1%	0.8%	0%	2.2%	-	-
Lights	54	1870	0	0	1924	-	12	1	0	0	13	-	2	1975	36	1	2014	-	55	5	32	0	92	-	4043
% Lights	93.1%	97.7%	0%	0%	97.6%	-	92.3%	100%	0%	0%	92.9%	-	100%	97.5%	94.7%	100%	97.4%	-	100%	100%	100%	0%	100%	-	97.5%
Single-Unit Trucks	1	17	0	0	18	-	0	0	0	0	0	-	0	10	0	0	10	-	0	0	0	0	0	-	28
% Single-Unit Trucks	1.7%	0.9%	0%	0%	0.9%	-	0%	0%	0%	0%	0%	-	0%	0.5%	0%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0.7%
Articulated Trucks	0	3	0	0	3	-	0	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	0	-	6
% Articulated Trucks	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0.1%
Buses	0	17	0	0	17	-	0	0	0	0	0	-	0	21	0	0	21	-	0	0	0	0	0	-	38
% Buses	0%	0.9%	0%	0%	0.9%	-	0%	0%	0%	0%	0%	-	0%	1.0%	0%	0%	1.0%	-	0%	0%	0%	0%	0%	-	0.9%
Bicycles on Road	3	7	0	0	10	-	1	0	0	0	1	-	0	17	2	0	19	-	0	0	0	0	0	-	30
% Bicycles on Road	5.2%	0.4%	0%	0%	0.5%	-	7.7%	0%	0%	0%	7.1%	-	0%	0.8%	5.3%	0%	0.9%	-	0%	0%	0%	0%	0%	-	0.7%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	60	-	-	-	-	-	9	-	-	-	-	-	43	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

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

Oak Park Avenue with Public Alley - 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: 681424, Location: 41.87926, -87.794237



Provided by: Kenig Lindgren O'Hara Aboona, Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

[N] Oak Park Avenue

Total: 4043

In: 1972

Out: 2071

[W] Public Alley

Total: 189
In: 92
Out: 97

15
3
5
5
28

58
1914

6

Out: 1970

In: 2067

Total: 4037

[S] Oak Park Avenue

1

38

2026

3

2

[E] Public Alley

Out: 7
In: 14
Total: 21

13

30
30

[E] Public Alley

Oak Park Avenue with Public Alley - 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: 681424, Location: 41.87926, -87.794237



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

Leg Direction	Oak Park Avenue Southbound						Public Alley Westbound						Oak Park Avenue Northbound						Public Alley Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23 7:30AM	1	96	0	0	97	0	2	0	0	0	2	7	0	115	0	0	115	0	2	0	2	0	4	3	218
7:45AM	5	98	0	0	103	0	3	0	0	0	3	6	0	144	1	0	145	0	2	0	1	0	3	0	254
8:00AM	2	117	0	0	119	0	2	0	0	0	2	0	0	116	0	0	116	0	1	0	1	0	2	0	239
8:15AM	2	92	0	0	94	0	1	0	0	0	1	4	0	132	0	0	132	0	4	0	1	0	5	3	232
Total	10	403	0	0	413	0	8	0	0	0	8	17	0	507	1	0	508	0	9	0	5	0	14	6	943
% Approach	2.4%	97.6%	0%	0%	-	-	100%	0%	0%	0%	-	-	0%	99.8%	0.2%	0%	-	-	64.3%	0%	35.7%	0%	-	-	-
% Total	1.1%	42.7%	0%	0%	43.8%	-	0.8%	0%	0%	0%	0.8%	-	0%	53.8%	0.1%	0%	53.9%	-	1.0%	0%	0.5%	0%	1.5%	-	-
PHF	0.563	0.860	-	-	0.864	-	0.667	-	-	-	0.667	-	-	0.879	0.250	-	0.875	-	0.563	-	0.625	-	0.700	-	0.934
Lights	9	384	0	0	393	-	8	0	0	0	8	-	0	491	1	0	492	-	9	0	5	0	14	-	907
% Lights	90.0%	95.3%	0%	0%	95.2%	-	100%	0%	0%	0%	100%	-	0%	96.8%	100%	0%	96.9%	-	100%	0%	100%	0%	100%	-	96.2%
Single-Unit Trucks	0	6	0	0	6	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	8
% Single-Unit Trucks	0%	1.5%	0%	0%	1.5%	-	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0.8%
Articulated Trucks	0	1	0	0	1	-	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	2
% Articulated Trucks	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0.2%
Buses	0	8	0	0	8	-	0	0	0	0	0	-	0	9	0	0	9	-	0	0	0	0	0	-	17
% Buses	0%	2.0%	0%	0%	1.9%	-	0%	0%	0%	0%	0%	-	0%	1.8%	0%	0%	1.8%	-	0%	0%	0%	0%	0%	-	1.8%
Bicycles on Road	1	4	0	0	5	-	0	0	0	0	0	-	0	4	0	0	4	-	0	0	0	0	0	-	9
% Bicycles on Road	10.0%	1.0%	0%	0%	1.2%	-	0%	0%	0%	0%	0%	-	0%	0.8%	0%	0%	0.8%	-	0%	0%	0%	0%	0%	-	1.0%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	17	-	-	-	-	-	0	-	-	-	-	-	6	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	100%	-

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

Oak Park Avenue with Public Alley - 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)

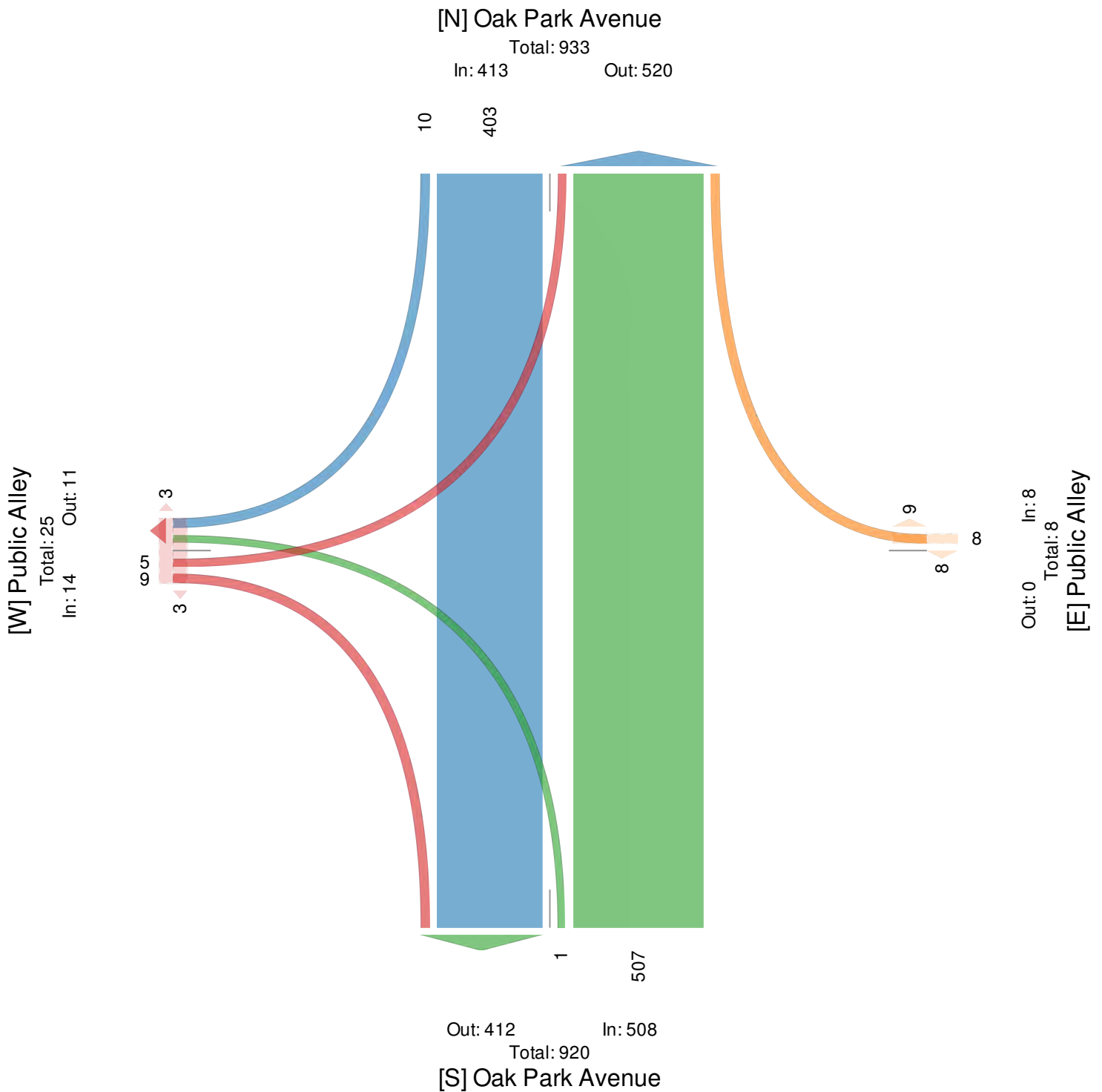
All Movements

ID: 681424, Location: 41.87926, -87.794237



Provided by: Kenig Lindgren O'Hara Aboona,
Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Oak Park Avenue with Public Alley - 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: 681424, Location: 41.87926, -87.794237



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

Leg Direction	Oak Park Avenue Southbound							Public Alley Westbound							Oak Park Avenue Northbound							Public Alley Eastbound							
Time	R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*	Int	
2019-07-23 5:00PM	3	143	0	0	146	0		1	0	0	0	1	2		0	155	3	0	158	1		7	0	2	0	9	4	314	
5:15PM	7	141	0	0	148	0		0	1	0	0	1	7		0	142	4	0	146	0		7	0	6	0	13	4	308	
5:30PM	3	165	0	0	168	0		0	0	0	0	0	5		0	124	3	0	127	0		4	1	3	0	8	5	303	
5:45PM	9	153	0	0	162	0		0	0	0	0	0	2		0	159	7	0	166	0		3	0	3	0	6	3	334	
Total	22	602	0	0	624	0		1	1	0	0	2	16		0	580	17	0	597	1		21	1	14	0	36	16	1259	
% Approach	3.5%	96.5%	0%	0%	-	-		50.0%	50.0%	0%	0%	-	-		0%	97.2%	2.8%	0%	-	-		58.3%	2.8%	38.9%	0%	-	-	-	
% Total	1.7%	47.8%	0%	0%	49.6%	-		0.1%	0.1%	0%	0%	0.2%	-		0%	46.1%	1.4%	0%	47.4%	-		1.7%	0.1%	1.1%	0%	2.9%	-	-	
PHF	0.556	0.911	-	-	0.924	-		0.250	0.250	-	-	0.500	-		-	0.903	0.607	-	0.890	-		0.750	0.250	0.583	-	0.692	-	0.936	
Lights	19	595	0	0	614	-		1	1	0	0	2	-		0	567	17	0	584	-		21	1	14	0	36	-	1236	
% Lights	86.4%	98.8%	0%	0%	98.4%	-		100%	100%	0%	0%	100%	-		0%	97.8%	100%	0%	97.8%	-		100%	100%	100%	0%	100%	-	98.2%	
Single-Unit Trucks	1	3	0	0	4	-		0	0	0	0	0	-		0	2	0	0	2	-		0	0	0	0	0	-	6	
% Single-Unit Trucks	4.5%	0.5%	0%	0%	0.6%	-		0%	0%	0%	0%	0%	-		0%	0.3%	0%	0%	0.3%	-		0%	0%	0%	0%	0%	-	0.5%	
Articulated Trucks	0	0	0	0	0	-		0	0	0	0	0	-		0	1	0	0	1	-		0	0	0	0	0	-	1	
% Articulated Trucks	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0.2%	0%	0%	0.2%	-		0%	0%	0%	0%	0%	-	0.1%	
Buses	0	3	0	0	3	-		0	0	0	0	0	-		0	4	0	0	4	-		0	0	0	0	0	-	7	
% Buses	0%	0.5%	0%	0%	0.5%	-		0%	0%	0%	0%	0%	-		0%	0.7%	0%	0%	0.7%	-		0%	0%	0%	0%	0%	-	0.6%	
Bicycles on Road	2	1	0	0	3	-		0	0	0	0	0	-		0	6	0	0	6	-		0	0	0	0	0	-	9	
% Bicycles on Road	9.1%	0.2%	0%	0%	0.5%	-		0%	0%	0%	0%	0%	-		0%	1.0%	0%	0%	1.0%	-		0%	0%	0%	0%	0%	-	0.7%	
Pedestrians	-	-	-	-	-	0		-	-	-	-	-	16		-	-	-	-	-	1		-	-	-	-	-	16		
% Pedestrians	-	-	-	-	-	-		-	-	-	-	-	100%		-	-	-	-	-	100%		-	-	-	-	-	100%		

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

Oak Park Avenue with Public Alley - 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)

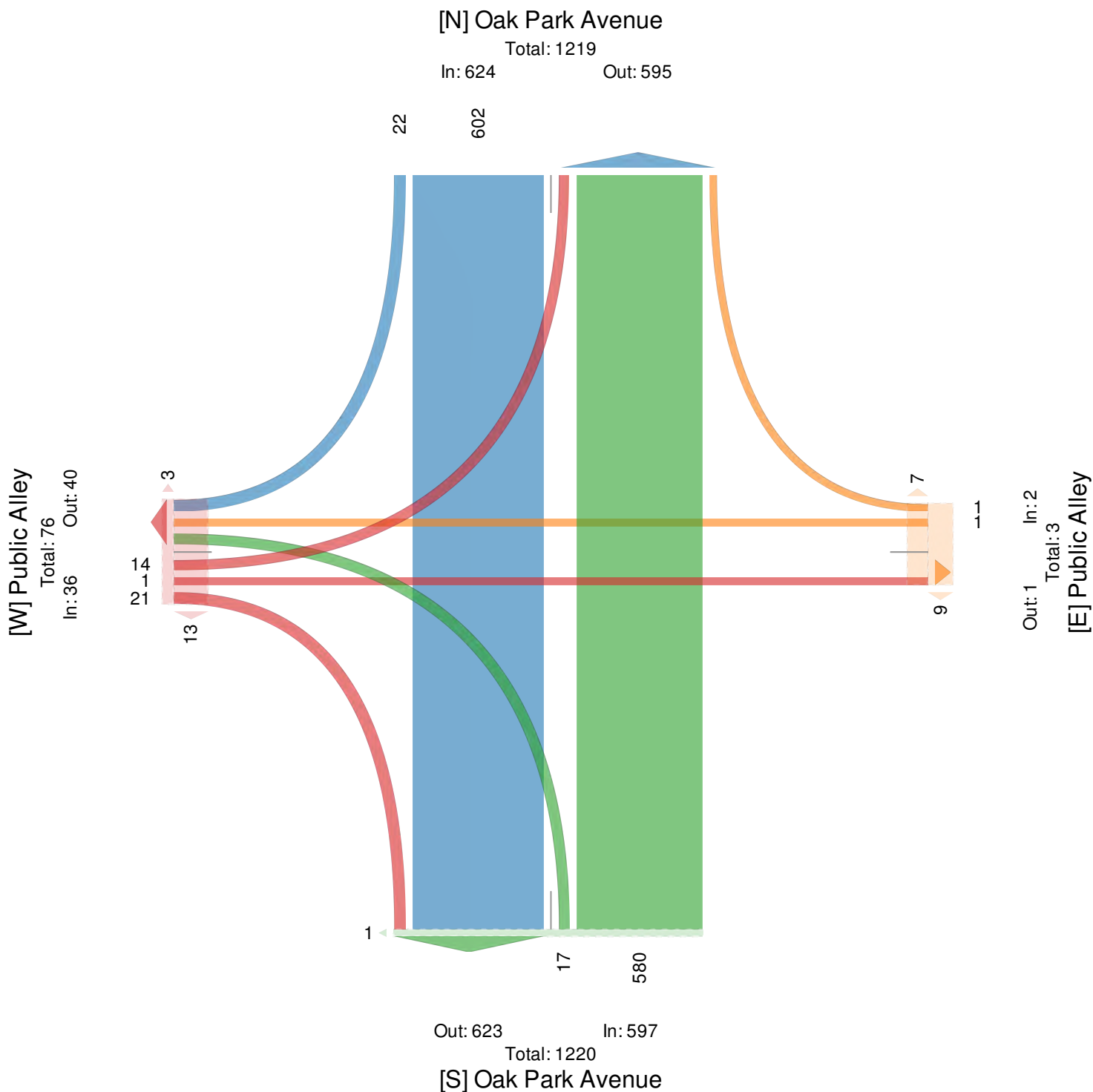
All Movements

ID: 681424, Location: 41.87926, -87.794237



Provided by: Kenig Lindgren O'Hara Aboona,
Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Oak Park Avenue with Adams Street - 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: 681423, Location: 41.877924, -87.79415



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

Leg Direction	Oak Park Avenue Southbound						Adams Street Westbound						Oak Park Avenue Northbound						Adams Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23																									
7:00AM	0	75	1	0	76	2	4	2	1	0	7	3	4	74	0	0	78	0	2	2	1	0	5	2	166
7:15AM	0	89	3	0	92	7	8	1	0	0	9	4	3	105	2	0	110	0	7	3	0	0	10	6	221
7:30AM	0	96	2	0	98	1	7	4	2	0	13	4	2	113	2	0	117	1	3	0	0	0	3	3	231
7:45AM	1	97	0	0	98	0	9	11	2	0	22	6	3	139	4	0	146	1	5	2	0	0	7	2	273
Hourly Total	1	357	6	0	364	10	28	18	5	0	51	17	12	431	8	0	451	2	17	7	1	0	25	13	891
8:00AM	4	114	2	0	120	0	2	2	1	0	5	1	4	108	2	0	114	1	2	2	0	0	4	0	243
8:15AM	1	85	7	0	93	1	7	3	0	0	10	10	2	127	2	0	131	1	3	1	0	0	4	1	238
8:30AM	2	65	3	0	70	1	10	3	2	0	15	3	2	135	3	0	140	2	3	1	1	0	5	3	230
8:45AM	0	87	0	0	87	1	5	5	3	0	13	4	3	103	5	0	111	2	0	1	0	0	1	2	212
Hourly Total	7	351	12	0	370	3	24	13	6	0	43	18	11	473	12	0	496	6	8	5	1	0	14	6	923
4:00PM	2	155	2	0	159	2	4	4	0	0	8	1	3	130	8	0	141	0	9	4	2	0	15	1	323
4:15PM	5	145	3	0	153	0	9	4	0	0	13	1	0	126	3	0	129	0	11	3	0	0	14	0	309
4:30PM	3	140	3	0	146	1	5	2	0	0	7	3	3	117	3	0	123	0	5	1	0	0	6	5	282
4:45PM	0	145	2	0	147	1	7	1	0	0	8	4	2	123	6	0	131	2	6	5	1	0	12	3	298
Hourly Total	10	585	10	0	605	4	25	11	0	0	36	9	8	496	20	0	524	2	31	13	3	0	47	9	1212
5:00PM	4	143	4	0	151	2	10	7	0	0	17	3	2	144	7	0	153	0	7	2	1	0	10	3	331
5:15PM	6	135	4	0	145	2	9	3	3	0	15	2	1	142	1	0	144	0	10	2	0	0	12	3	316
5:30PM	2	154	3	0	159	1	12	2	3	0	17	0	1	132	3	0	136	3	5	1	0	0	6	3	318
5:45PM	4	144	2	0	150	0	8	3	2	0	13	2	6	148	3	0	157	1	6	1	0	0	7	1	327
Hourly Total	16	576	13	0	605	5	39	15	8	0	62	7	10	566	14	0	590	4	28	6	1	0	35	10	1292
Total	34	1869	41	0	1944	22	116	57	19	0	192	51	41	1966	54	0	2061	14	84	31	6	0	121	38	4318
% Approach	1.7%	96.1%	2.1%	0%	-	-	60.4%	29.7%	9.9%	0%	-	-	2.0%	95.4%	2.6%	0%	-	-	69.4%	25.6%	5.0%	0%	-	-	-
% Total	0.8%	43.3%	0.9%	0%	45.0%	-	2.7%	1.3%	0.4%	0%	4.4%	-	0.9%	45.5%	1.3%	0%	47.7%	-	1.9%	0.7%	0.1%	0%	2.8%	-	-
Lights	33	1818	40	0	1891	-	114	48	19	0	181	-	40	1914	53	0	2007	-	83	22	6	0	111	-	4190
% Lights	97.1%	97.3%	97.6%	0%	97.3%	-	98.3%	84.2%	100%	0%	94.3%	-	97.6%	97.4%	98.1%	0%	97.4%	-	98.8%	71.0%	100%	0%	91.7%	-	97.0%
Single-Unit Trucks	0	24	0	0	24	-	0	0	0	0	0	-	0	12	0	0	12	-	0	0	0	0	0	-	36
% Single-Unit Trucks	0%	1.3%	0%	0%	1.2%	-	0%	0%	0%	0%	0%	-	0%	0.6%	0%	0%	0.6%	-	0%	0%	0%	0%	0%	-	0.8%
Articulated Trucks	0	3	0	0	3	-	0	0	0	0	0	-	1	1	0	0	2	-	0	0	0	0	0	-	5
% Articulated Trucks	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	2.4%	0.1%	0%	0%	0.1%	-	0%	0%	0%	0%	0%	-	0.1%
Buses	0	18	0	0	18	-	0	0	0	0	0	-	0	21	0	0	21	-	0	0	0	0	0	-	39
% Buses	0%	1.0%	0%	0%	0.9%	-	0%	0%	0%	0%	0%	-	0%	1.1%	0%	0%	1.0%	-	0%	0%	0%	0%	0%	-	0.9%
Bicycles on Road	1	6	1	0	8	-	2	9	0	0	11	-	0	18	1	0	19	-	1	9	0	0	10	-	48
% Bicycles on Road	2.9%	0.3%	2.4%	0%	0.4%	-	1.7%	15.8%	0%	0%	5.7%	-	0%	0.9%	1.9%	0%	0.9%	-	1.2%	29.0%	0%	0%	8.3%	-	1.1%
Pedestrians	-	-	-	-	-	22	-	-	-	-	-	51	-	-	-	-	-	14	-	-	-	-	-	38	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

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

Oak Park Avenue with Adams Street - 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)

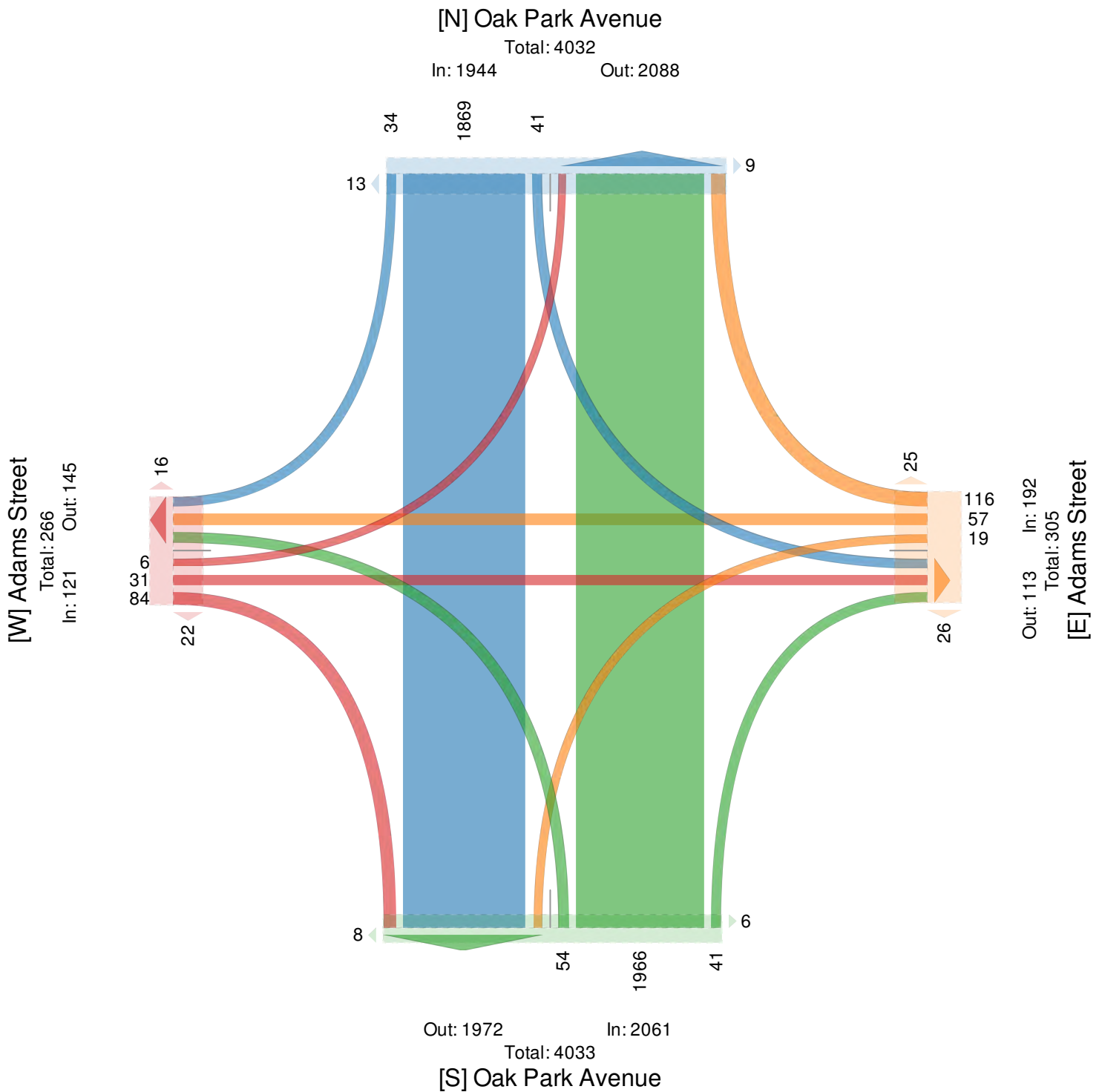
All Movements

ID: 681423, Location: 41.877924, -87.79415



Provided by: Kenig Lindgren O'Hara Aboona, Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Oak Park Avenue with Adams Street - TMC

Tue Jul 23, 2019

AM Peak (7:45 AM - 8:45 AM)

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

All Movements

ID: 681423, Location: 41.877924, -87.79415



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

Leg Direction	Oak Park Avenue Southbound						Adams Street Westbound						Oak Park Avenue Northbound						Adams Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23 7:45AM	1	97	0	0	98	0	9	11	2	0	22	6	3	139	4	0	146	1	5	2	0	0	7	2	273
8:00AM	4	114	2	0	120	0	2	2	1	0	5	1	4	108	2	0	114	1	2	2	0	0	4	0	243
8:15AM	1	85	7	0	93	1	7	3	0	0	10	10	2	127	2	0	131	1	3	1	0	0	4	1	238
8:30AM	2	65	3	0	70	1	10	3	2	0	15	3	2	135	3	0	140	2	3	1	1	0	5	3	230
Total	8	361	12	0	381	2	28	19	5	0	52	20	11	509	11	0	531	5	13	6	1	0	20	6	984
% Approach	2.1%	94.8%	3.1%	0%	-	-	53.8%	36.5%	9.6%	0%	-	-	2.1%	95.9%	2.1%	0%	-	-	65.0%	30.0%	5.0%	0%	-	-	-
% Total	0.8%	36.7%	1.2%	0%	38.7%	-	2.8%	1.9%	0.5%	0%	5.3%	-	1.1%	51.7%	1.1%	0%	54.0%	-	1.3%	0.6%	0.1%	0%	2.0%	-	-
PHF	0.438	0.792	0.458	-	0.790	-	0.650	0.389	0.625	-	0.592	-	0.688	0.918	0.688	-	0.912	-	0.750	0.750	0.250	-	0.800	-	0.915
Lights	7	346	11	0	364	-	26	14	5	0	45	-	11	495	11	0	517	-	12	3	1	0	16	-	942
% Lights	87.5%	95.8%	91.7%	0%	95.5%	-	92.9%	73.7%	100%	0%	86.5%	-	100%	97.2%	100%	0%	97.4%	-	92.3%	50.0%	100%	0%	80.0%	-	95.7%
Single-Unit Trucks	0	5	0	0	5	-	0	0	0	0	0	-	0	2	0	0	2	-	0	0	0	0	0	-	7
% Single-Unit Trucks	0%	1.4%	0%	0%	1.3%	-	0%	0%	0%	0%	0%	-	0%	0.4%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0.7%
Articulated Trucks	0	1	0	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	1
% Articulated Trucks	0%	0.3%	0%	0%	0.3%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.1%
Buses	0	6	0	0	6	-	0	0	0	0	0	-	0	10	0	0	10	-	0	0	0	0	0	-	16
% Buses	0%	1.7%	0%	0%	1.6%	-	0%	0%	0%	0%	0%	-	0%	2.0%	0%	0%	1.9%	-	0%	0%	0%	0%	0%	-	1.6%
Bicycles on Road	1	3	1	0	5	-	2	5	0	0	7	-	0	2	0	0	2	-	1	3	0	0	4	-	18
% Bicycles on Road	12.5%	0.8%	8.3%	0%	1.3%	-	7.1%	26.3%	0%	0%	13.5%	-	0%	0.4%	0%	0%	0.4%	-	7.7%	50.0%	0%	0%	20.0%	-	1.8%
Pedestrians	-	-	-	-	-	2	-	-	-	-	-	20	-	-	-	-	-	5	-	-	-	-	-	6	-
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	100%

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

Oak Park Avenue with Adams Street - TMC

Tue Jul 23, 2019

AM Peak (7:45 AM - 8:45 AM)

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

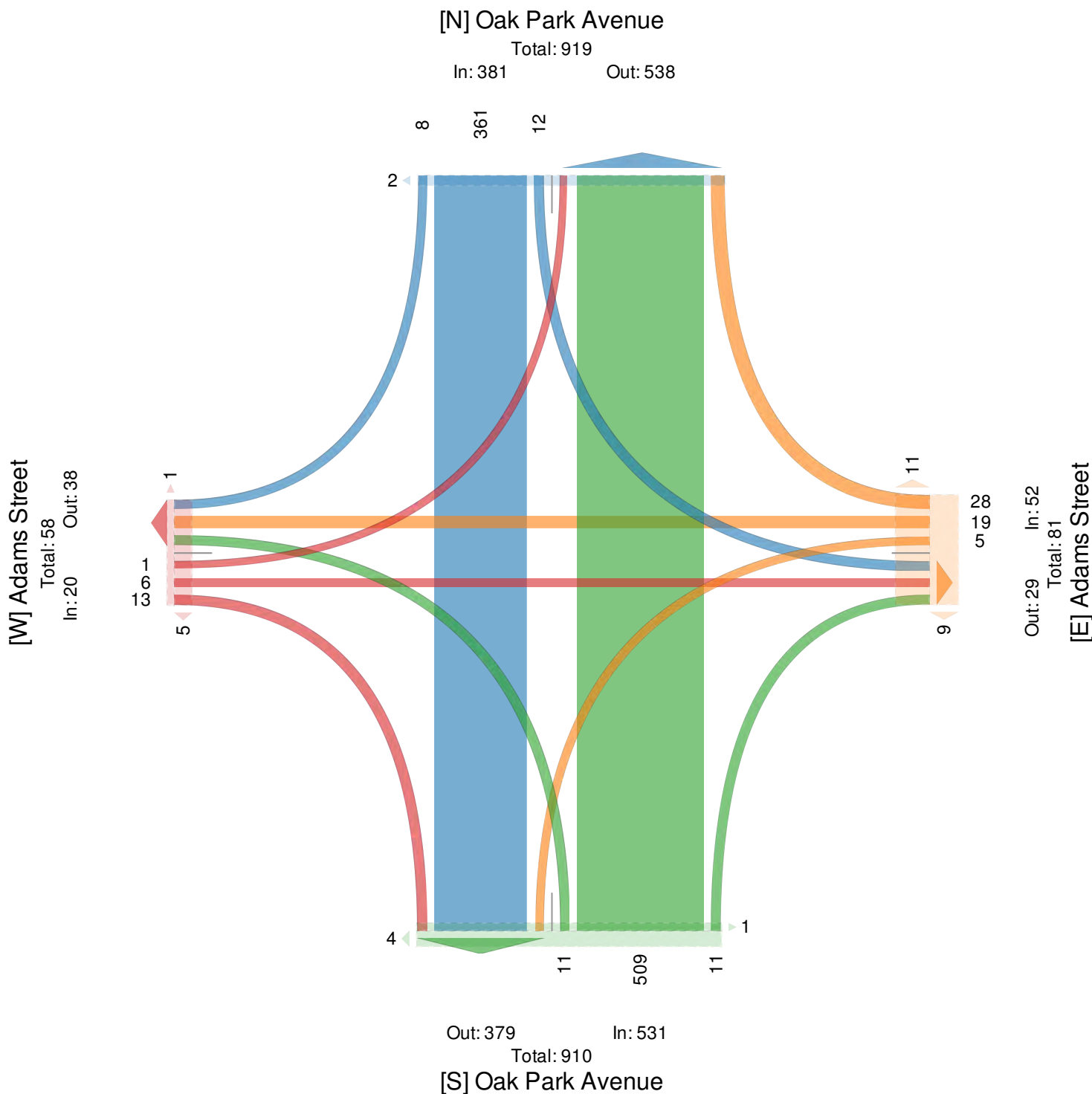
All Movements

ID: 681423, Location: 41.877924, -87.79415



Provided by: Kenig Lindgren O'Hara Aboona,
Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Oak Park Avenue with Adams Street - 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: 681423, Location: 41.877924, -87.79415



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

Leg Direction	Oak Park Avenue Southbound						Adams Street Westbound						Oak Park Avenue Northbound						Adams Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23 5:00PM	4	143	4	0	151	2	10	7	0	0	17	3	2	144	7	0	153	0	7	2	1	0	10	3	331
5:15PM	6	135	4	0	145	2	9	3	3	0	15	2	1	142	1	0	144	0	10	2	0	0	12	3	316
5:30PM	2	154	3	0	159	1	12	2	3	0	17	0	1	132	3	0	136	3	5	1	0	0	6	3	318
5:45PM	4	144	2	0	150	0	8	3	2	0	13	2	6	148	3	0	157	1	6	1	0	0	7	1	327
Total	16	576	13	0	605	5	39	15	8	0	62	7	10	566	14	0	590	4	28	6	1	0	35	10	1292
% Approach	2.6%	95.2%	2.1%	0%	-	-	62.9%	24.2%	12.9%	0%	-	-	1.7%	95.9%	2.4%	0%	-	-	80.0%	17.1%	2.9%	0%	-	-	-
% Total	1.2%	44.6%	1.0%	0%	46.8%	-	3.0%	1.2%	0.6%	0%	4.8%	-	0.8%	43.8%	1.1%	0%	45.7%	-	2.2%	0.5%	0.1%	0%	2.7%	-	-
PHF	0.667	0.933	0.813	-	0.950	-	0.813	0.583	0.667	-	0.897	-	0.417	0.954	0.542	-	0.936	-	0.700	0.625	0.250	-	0.708	-	0.981
Lights	16	562	13	0	591	-	39	14	8	0	61	-	10	554	13	0	577	-	28	5	1	0	34	-	1263
% Lights	100%	97.6%	100%	0%	97.7%	-	100%	93.3%	100%	0%	98.4%	-	100%	97.9%	92.9%	0%	97.8%	-	100%	83.3%	100%	0%	97.1%	-	97.8%
Single-Unit Trucks	0	8	0	0	8	-	0	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	0	-	11
% Single-Unit Trucks	0%	1.4%	0%	0%	1.3%	-	0%	0%	0%	0%	0%	-	0%	0.5%	0%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0.9%
Articulated Trucks	0	1	0	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	1
% Articulated Trucks	0%	0.2%	0%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.1%
Buses	0	4	0	0	4	-	0	0	0	0	0	-	0	4	0	0	4	-	0	0	0	0	0	-	8
% Buses	0%	0.7%	0%	0%	0.7%	-	0%	0%	0%	0%	0%	-	0%	0.7%	0%	0%	0.7%	-	0%	0%	0%	0%	0%	-	0.6%
Bicycles on Road	0	1	0	0	1	-	0	1	0	0	1	-	0	5	1	0	6	-	0	1	0	0	1	-	9
% Bicycles on Road	0%	0.2%	0%	0%	0.2%	-	0%	6.7%	0%	0%	1.6%	-	0%	0.9%	7.1%	0%	1.0%	-	0%	16.7%	0%	0%	2.9%	-	0.7%
Pedestrians	-	-	-	-	-	5	-	-	-	-	-	7	-	-	-	-	-	4	-	-	-	-	-	10	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	

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

Oak Park Avenue with Adams Street - 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)

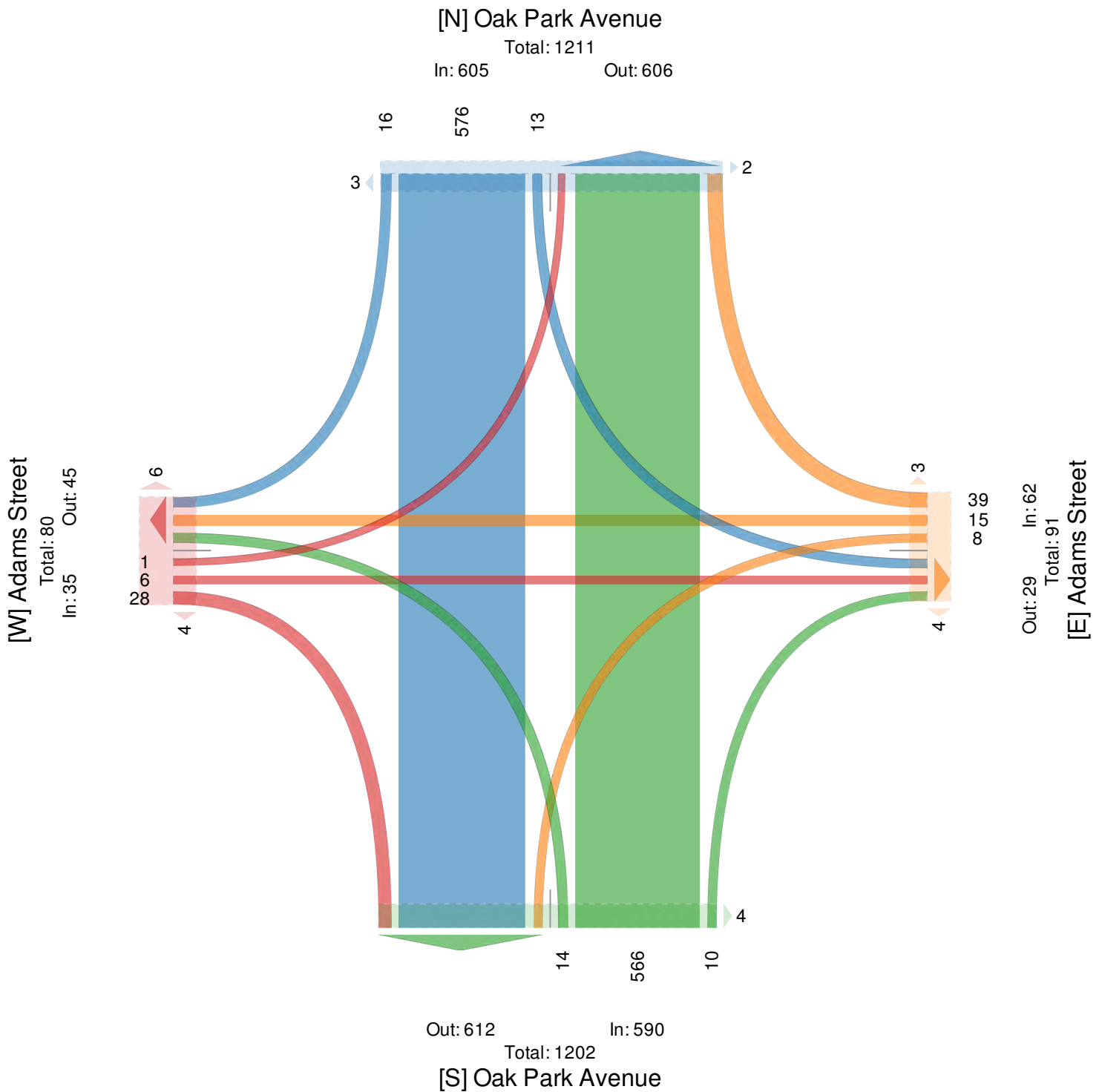
All Movements

ID: 681423, Location: 41.877924, -87.79415



Provided by: Kenig Lindgren O'Hara Aboona, Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Euclid avenue with Adams Street - 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: 681430, Location: 41.877953, -87.792962



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

Leg Direction	Euclid Avenue Southbound						Adams Street Westbound						Euclid Avenue Northbound						Adams Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23																									
7:00AM	0	1	0	0	1	2	0	3	1	0	4	0	1	2	2	0	5	3	0	3	4	0	7	0	17
7:15AM	1	2	0	0	3	3	0	7	1	0	8	0	2	1	0	0	3	1	2	5	3	0	10	0	24
7:30AM	1	2	1	0	4	2	0	12	0	0	12	1	0	3	1	0	4	4	4	0	3	0	7	1	27
7:45AM	0	4	1	0	5	0	0	16	2	0	18	0	1	4	2	0	7	1	2	5	0	0	7	4	37
Hourly Total	2	9	2	0	13	7	0	38	4	0	42	1	4	10	5	0	19	9	8	13	10	0	31	5	105
8:00AM	0	8	0	0	8	0	2	3	4	0	9	0	0	4	2	0	6	3	3	7	1	0	11	1	34
8:15AM	1	3	0	0	4	0	0	10	1	0	11	0	0	3	1	0	4	5	7	7	0	0	14	1	33
8:30AM	0	1	2	0	3	0	2	11	1	0	14	0	0	0	3	0	3	4	2	4	0	0	6	1	26
8:45AM	0	6	0	0	6	1	1	13	2	0	16	0	1	0	0	1	2	2	0	3	2	0	5	0	29
Hourly Total	1	18	2	0	21	1	5	37	8	0	50	0	1	7	6	1	15	14	12	21	3	0	36	3	122
4:00PM	0	2	1	0	3	1	1	8	0	0	9	0	0	6	4	0	10	4	0	8	0	0	8	1	30
4:15PM	3	7	0	0	10	0	0	12	0	0	12	0	1	3	1	0	5	2	2	4	0	0	6	1	33
4:30PM	1	1	1	0	3	0	2	5	0	0	7	0	0	2	1	0	3	1	2	3	1	0	6	3	19
4:45PM	0	2	0	0	2	1	0	8	0	0	8	0	2	3	2	0	7	1	0	9	1	0	10	2	27
Hourly Total	4	12	2	0	18	2	3	33	0	0	36	0	3	14	8	0	25	8	4	24	2	0	30	7	109
5:00PM	1	2	1	0	4	0	1	15	2	0	18	0	2	3	1	0	6	2	3	5	1	0	9	1	37
5:15PM	0	7	0	0	7	0	3	12	2	0	17	0	0	8	3	0	11	1	2	3	2	0	7	0	42
5:30PM	1	2	3	0	6	0	0	8	1	0	9	0	0	5	7	0	12	1	2	4	0	0	6	0	33
5:45PM	4	2	1	0	7	0	1	9	2	0	12	0	1	2	2	0	5	1	1	8	2	0	11	2	35
Hourly Total	6	13	5	0	24	0	5	44	7	0	56	0	3	18	13	0	34	5	8	20	5	0	33	3	147
Total	13	52	11	0	76	10	13	152	19	0	184	1	11	49	32	1	93	36	32	78	20	0	130	18	483
% Approach	17.1%	68.4%	14.5%	0%	-	-	7.1%	82.6%	10.3%	0%	-	-	11.8%	52.7%	34.4%	1.1%	-	-	24.6%	60.0%	15.4%	0%	-	-	-
% Total	2.7%	10.8%	2.3%	0%	15.7%	-	2.7%	31.5%	3.9%	0%	38.1%	-	2.3%	10.1%	6.6%	0.2%	19.3%	-	6.6%	16.1%	4.1%	0%	26.9%	-	-
Lights	12	45	10	0	67	-	13	139	16	0	168	-	8	44	30	0	82	-	31	63	20	0	114	-	431
% Lights	92.3%	86.5%	90.9%	0%	88.2%	-	100%	91.4%	84.2%	0%	91.3%	-	72.7%	89.8%	93.8%	0%	88.2%	-	96.9%	80.8%	100%	0%	87.7%	-	89.2%
Single-Unit Trucks	0	1	0	0	1	-	0	0	0	0	0	-	0	1	1	1	3	-	0	0	0	0	0	-	4
% Single-Unit Trucks	0%	1.9%	0%	0%	1.3%	-	0%	0%	0%	0%	0%	-	0%	2.0%	3.1%	100%	3.2%	-	0%	0%	0%	0%	0%	-	0.8%
Articulated Trucks	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	0	1	0	0	1	-	2
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0.7%	0%	0%	0.5%	-	0%	0%	0%	0%	0%	-	0%	1.3%	0%	0%	0.8%	-	0.4%
Buses	0	2	0	0	2	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	2
% Buses	0%	3.8%	0%	0%	2.6%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.4%
Bicycles on Road	1	4	1	0	6	-	0	12	3	0	15	-	3	4	1	0	8	-	1	14	0	0	15	-	44
% Bicycles on Road	7.7%	7.7%	9.1%	0%	7.9%	-	0%	7.9%	15.8%	0%	8.2%	-	27.3%	8.2%	3.1%	0%	8.6%	-	3.1%	17.9%	0%	0%	11.5%	-	9.1%
Pedestrians	-	-	-	-	-	10	-	-	-	-	-	1	-	-	-	-	-	36	-	-	-	-	-	18	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

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

Euclid avenue with Adams Street - 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: 681430, Location: 41.877953, -87.792962



Provided by: Kenig Lindgren O'Hara Aboona, Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

[N] Euclid Avenue

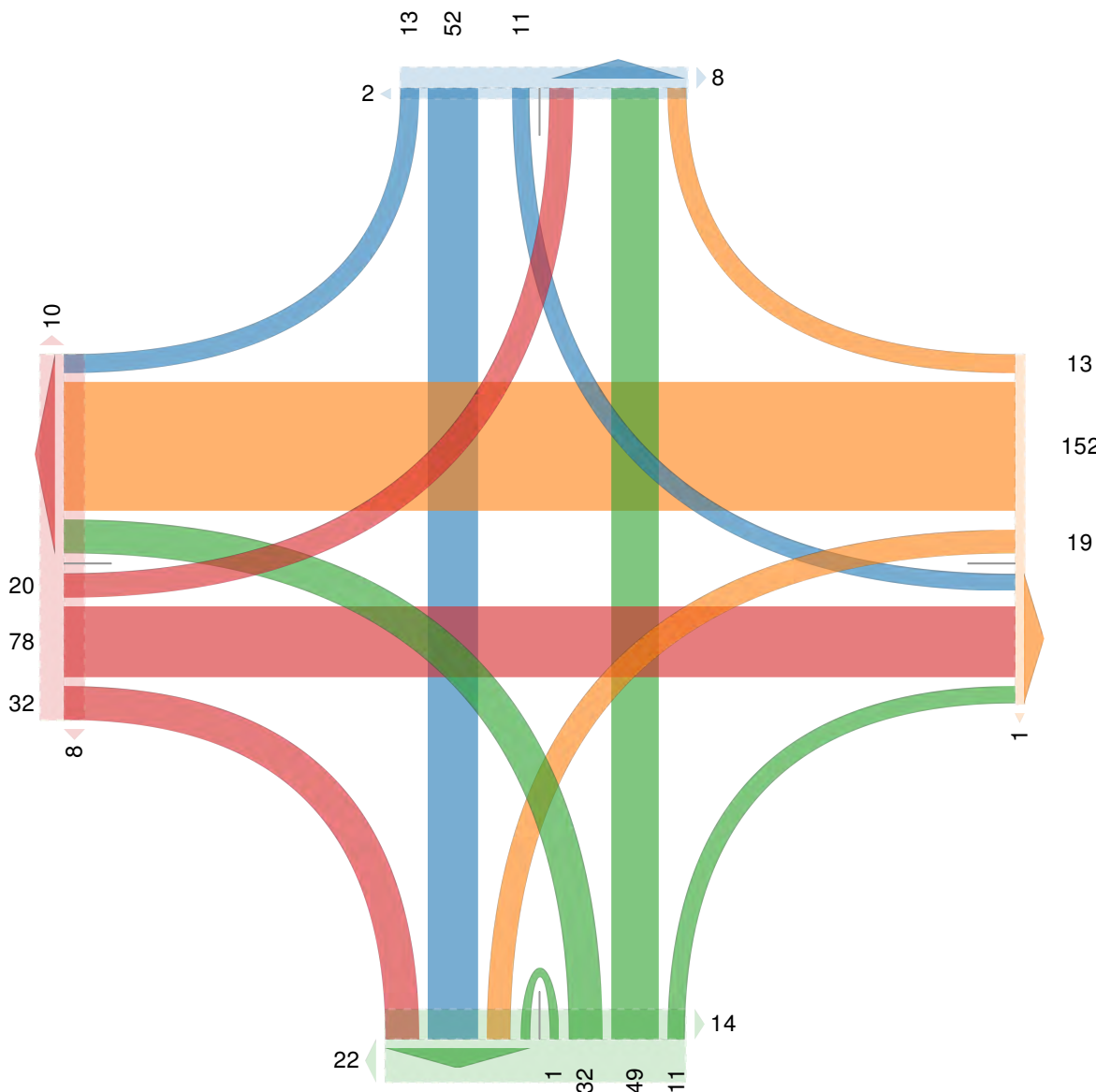
Total: 158

In: 76 Out: 82

[W] Adams Street

Total: 327

In: 130 Out: 197



Out: 100 In: 184

Total: 284

[E] Adams Street

Out: 104 In: 93

Total: 197

[S] Euclid Avenue

Euclid avenue with Adams Street - 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: 681430, Location: 41.877953, -87.792962



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

Leg Direction	Euclid Avenue Southbound						Adams Street Westbound						Euclid Avenue Northbound						Adams Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23 7:30AM	1	2	1	0	4	2	0	12	0	0	12	1	0	3	1	0	4	4	4	0	3	0	7	1	27
7:45AM	0	4	1	0	5	0	0	16	2	0	18	0	1	4	2	0	7	1	2	5	0	0	7	4	37
8:00AM	0	8	0	0	8	0	2	3	4	0	9	0	0	4	2	0	6	3	3	7	1	0	11	1	34
8:15AM	1	3	0	0	4	0	0	10	1	0	11	0	0	3	1	0	4	5	7	7	0	0	14	1	33
Total	2	17	2	0	21	2	2	41	7	0	50	1	1	14	6	0	21	13	16	19	4	0	39	7	131
% Approach	9.5%	81.0%	9.5%	0%	-	-	4.0%	82.0%	14.0%	0%	-	-	4.8%	66.7%	28.6%	0%	-	-	41.0%	48.7%	10.3%	0%	-	-	-
% Total	1.5%	13.0%	1.5%	0%	16.0%	-	1.5%	31.3%	5.3%	0%	38.2%	-	0.8%	10.7%	4.6%	0%	16.0%	-	12.2%	14.5%	3.1%	0%	29.8%	-	-
PHF	0.500	0.531	0.500	-	0.656	-	0.250	0.625	0.438	-	0.688	-	0.250	1.000	0.625	-	0.750	-	0.625	0.464	0.333	-	0.615	-	0.927
Lights	2	17	2	0	21	-	2	35	7	0	44	-	1	12	5	0	18	-	15	13	4	0	32	-	115
% Lights	100%	100%	100%	0%	100%	-	100%	85.4%	100%	0%	88.0%	-	100%	85.7%	83.3%	0%	85.7%	-	93.8%	68.4%	100%	0%	82.1%	-	87.8%
Single-Unit Trucks	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%
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%
Buses	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Bicycles on Road	0	0	0	0	0	-	0	6	0	0	6	-	0	2	1	0	3	-	1	6	0	0	7	-	16
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	14.6%	0%	0%	12.0%	-	0%	14.3%	16.7%	0%	14.3%	-	6.3%	31.6%	0%	0%	17.9%	-	12.2%
Pedestrians	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	13	-	-	-	-	-	7	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

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

Euclid avenue with Adams Street - 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: 681430, Location: 41.877953, -87.792962



Provided by: Kenig Lindgren O'Hara Aboona,
Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

[N] Euclid Avenue

Total: 41
In: 21 Out: 20

2 17 2

2

2

41

7

In: 50

Out: 22
Total: 72

[E] Adams Street

1

2

Out: 40 In: 21
Total: 61

[S] Euclid Avenue

11

6

14

1

[W] Adams Street

Total: 88

In: 39 Out: 49

5

4

19

16

2

Euclid avenue with Adams Street - 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: 681430, Location: 41.877953, -87.792962



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

Leg Direction	Euclid Avenue Southbound						Adams Street Westbound						Euclid Avenue Northbound						Adams Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23 5:00PM	1	2	1	0	4	0	1	15	2	0	18	0	2	3	1	0	6	2	3	5	1	0	9	1	37
5:15PM	0	7	0	0	7	0	3	12	2	0	17	0	0	8	3	0	11	1	2	3	2	0	7	0	42
5:30PM	1	2	3	0	6	0	0	8	1	0	9	0	0	5	7	0	12	1	2	4	0	0	6	0	33
5:45PM	4	2	1	0	7	0	1	9	2	0	12	0	1	2	2	0	5	1	1	8	2	0	11	2	35
Total	6	13	5	0	24	0	5	44	7	0	56	0	3	18	13	0	34	5	8	20	5	0	33	3	147
% Approach	25.0%	54.2%	20.8%	0%	-	-	8.9%	78.6%	12.5%	0%	-	-	8.8%	52.9%	38.2%	0%	-	-	24.2%	60.6%	15.2%	0%	-	-	-
% Total	4.1%	8.8%	3.4%	0%	16.3%	-	3.4%	29.9%	4.8%	0%	38.1%	-	2.0%	12.2%	8.8%	0%	23.1%	-	5.4%	13.6%	3.4%	0%	22.4%	-	-
PHF	0.375	0.563	0.417	-	0.714	-	0.417	0.750	0.625	-	0.813	-	0.250	0.531	0.464	-	0.727	-	0.667	0.708	0.625	-	0.833	-	0.882
Lights	6	7	5	0	18	-	5	42	5	0	52	-	2	16	13	0	31	-	8	17	5	0	30	-	131
% Lights	100%	53.8%	100%	0%	75.0%	-	100%	95.5%	71.4%	0%	92.9%	-	66.7%	88.9%	100%	0%	91.2%	-	100%	85.0%	100%	0%	90.9%	-	89.1%
Single-Unit Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	1	0	0	1	-	0	0	0	0	0	-	1
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	5.6%	0%	0%	2.9%	-	0%	0%	0%	0%	0%	-	0.7%
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%
Buses	0	2	0	0	2	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	2
% Buses	0%	15.4%	0%	0%	8.3%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	1.4%
Bicycles on Road	0	4	0	0	4	-	0	2	2	0	4	-	1	1	0	0	2	-	0	3	0	0	3	-	13
% Bicycles on Road	0%	30.8%	0%	0%	16.7%	-	0%	4.5%	28.6%	0%	7.1%	-	33.3%	5.6%	0%	0%	5.9%	-	0%	15.0%	0%	0%	9.1%	-	8.8%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	5	-	-	-	-	-	3	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-

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

Euclid avenue with Adams Street - 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: 681430, Location: 41.877953, -87.792962



Provided by: Kenig Lindgren O'Hara Aboona, Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

[N] Euclid Avenue

Total: 52

In: 24 Out: 28

6 13 5

[W] Adams Street

Total: 96

In: 33 Out: 63

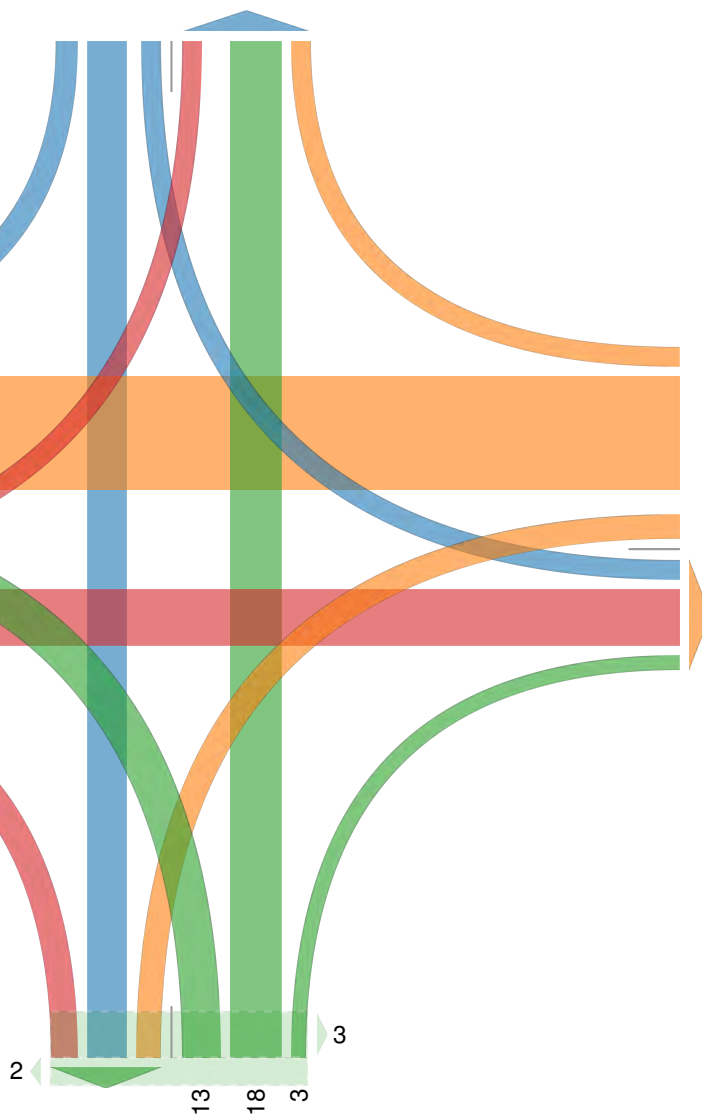
2
5
20
8
1

5
44
7

Out: 28 In: 56

Total: 84

[E] Adams Street



Out: 28 In: 34

Total: 62

[S] Euclid Avenue

Euclid Avenue with Public Alley - 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: 681428, Location: 41.879268, -87.792995



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

Leg Direction	Euclid Avenue Southbound							Public Alley Westbound							Euclid Avenue Northbound							Public Alley Eastbound							
Time	R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		Int
2019-07-23																													
7:00AM	0	2	0	0	2	0		0	0	0	0	0	1		0	5	1	0	6	0		0	0	1	0	1	0		9
7:15AM	0	2	0	0	2	1		0	0	0	0	0	0		0	3	0	0	3	0		1	1	0	0	2	0		7
7:30AM	0	4	0	0	4	0		0	1	0	0	1	1		0	7	1	0	8	0		1	0	1	0	2	3		15
7:45AM	0	4	0	0	4	2		0	0	0	0	0	1		0	4	0	0	4	0		0	0	1	0	1	2		9
Hourly Total	0	12	0	0	12	3		0	1	0	0	1	3		0	19	2	0	21	0		2	1	3	0	6	5		40
8:00AM	1	8	1	1	11	0		0	0	1	0	1	2		0	5	2	0	7	0		0	0	0	0	0	3		19
8:15AM	0	4	0	0	4	0		0	1	0	0	1	0		0	2	1	0	3	0		0	0	1	0	1	1		9
8:30AM	0	3	0	1	4	0		0	0	0	0	0	0		1	1	0	0	2	0		0	0	0	0	0	0		6
8:45AM	1	5	0	1	7	0		0	0	0	0	0	0		0	4	0	0	4	0		1	0	0	0	1	0		12
Hourly Total	2	20	1	3	26	0		0	1	1	0	2	2		1	12	3	0	16	0		1	0	1	0	2	4		46
4:00PM	2	4	0	0	6	0		0	0	0	0	0	0		0	7	0	0	7	1		0	1	0	0	1	2		14
4:15PM	0	5	0	1	6	0		0	1	0	0	1	0		0	2	0	1	3	0		2	1	0	0	3	0		13
4:30PM	0	4	0	0	4	0		1	0	0	0	1	0		0	5	0	0	5	0		0	0	2	0	2	0		12
4:45PM	0	3	0	0	3	0		0	0	0	0	0	1		0	4	0	1	5	0		0	2	0	0	2	2		10
Hourly Total	2	16	0	1	19	0		1	1	0	0	2	1		0	18	0	2	20	1		2	4	2	0	8	4		49
5:00PM	1	4	0	0	5	0		1	0	1	0	2	0		0	5	0	0	5	0		0	0	0	0	0	0		12
5:15PM	1	8	0	0	9	0		0	0	0	0	0	0		0	15	0	0	15	0		0	0	0	0	0	0		24
5:30PM	1	4	0	0	5	0		0	0	1	0	1	0		1	3	0	0	4	0		0	0	1	0	1	0		11
5:45PM	2	3	2	0	7	0		0	0	0	0	0	1		0	5	0	0	5	1		1	0	0	0	1	4		13
Hourly Total	5	19	2	0	26	0		1	0	2	0	3	1		1	28	0	0	29	1		1	0	1	0	2	4		60
Total	9	67	3	4	83	3		2	3	3	0	8	7		2	77	5	2	86	2		6	5	7	0	18	17		195
% Approach	10.8%	80.7%	3.6%	4.8%	-	-		25.0%	37.5%	37.5%	0%	-	-		2.3%	89.5%	5.8%	2.3%	-	-		33.3%	27.8%	38.9%	0%	-	-		-
% Total	4.6%	34.4%	1.5%	2.1%	42.6%	-		1.0%	1.5%	1.5%	0%	4.1%	-		1.0%	39.5%	2.6%	1.0%	44.1%	-		3.1%	2.6%	3.6%	0%	9.2%	-		-
Lights	9	60	3	4	76	-		2	3	3	0	8	-		1	69	5	2	77	-		6	3	7	0	16	-		177
% Lights	100%	89.6%	100%	100%	91.6%	-		100%	100%	100%	0%	100%	-		50.0%	89.6%	100%	100%	89.5%	-		100%	60.0%	100%	0%	88.9%	-		90.8%
Single-Unit Trucks	0	1	0	0	1	-		0	0	0	0	0	-		1	0	0	0	1	-		0	0	0	0	0	-		2
% Single-Unit Trucks	0%	1.5%	0%	0%	1.2%	-		0%	0%	0%	0%	0%	-		50.0%	0%	0%	0%	1.2%	-		0%	0%	0%	0%	0%	-		1.0%
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%
Buses	0	1	0	0	1	-		0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		1
% Buses	0%	1.5%	0%	0%	1.2%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0.5%
Bicycles on Road	0	5	0	0	5	-		0	0	0	0	0	-		0	8	0	0	8	-		0	2	0	0	2	-		15
% Bicycles on Road	0%	7.5%	0%	0%	6.0%	-		0%	0%	0%	0%	0%	-		0%	10.4%	0%	0%	9.3%	-		0%	40.0%	0%	0%	11.1%	-		7.7%
Pedestrians	-	-	-	-	-	3		-	-	-	-	-	7		-	-	-	-	-	2		-	-	-	-	-	17		
% Pedestrians	-	-	-	-	-	100%		-	-	-	-	-	100%		-	-	-	-	-	100%		-	-	-	-	-	100%		

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

Euclid Avenue with Public Alley - 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)

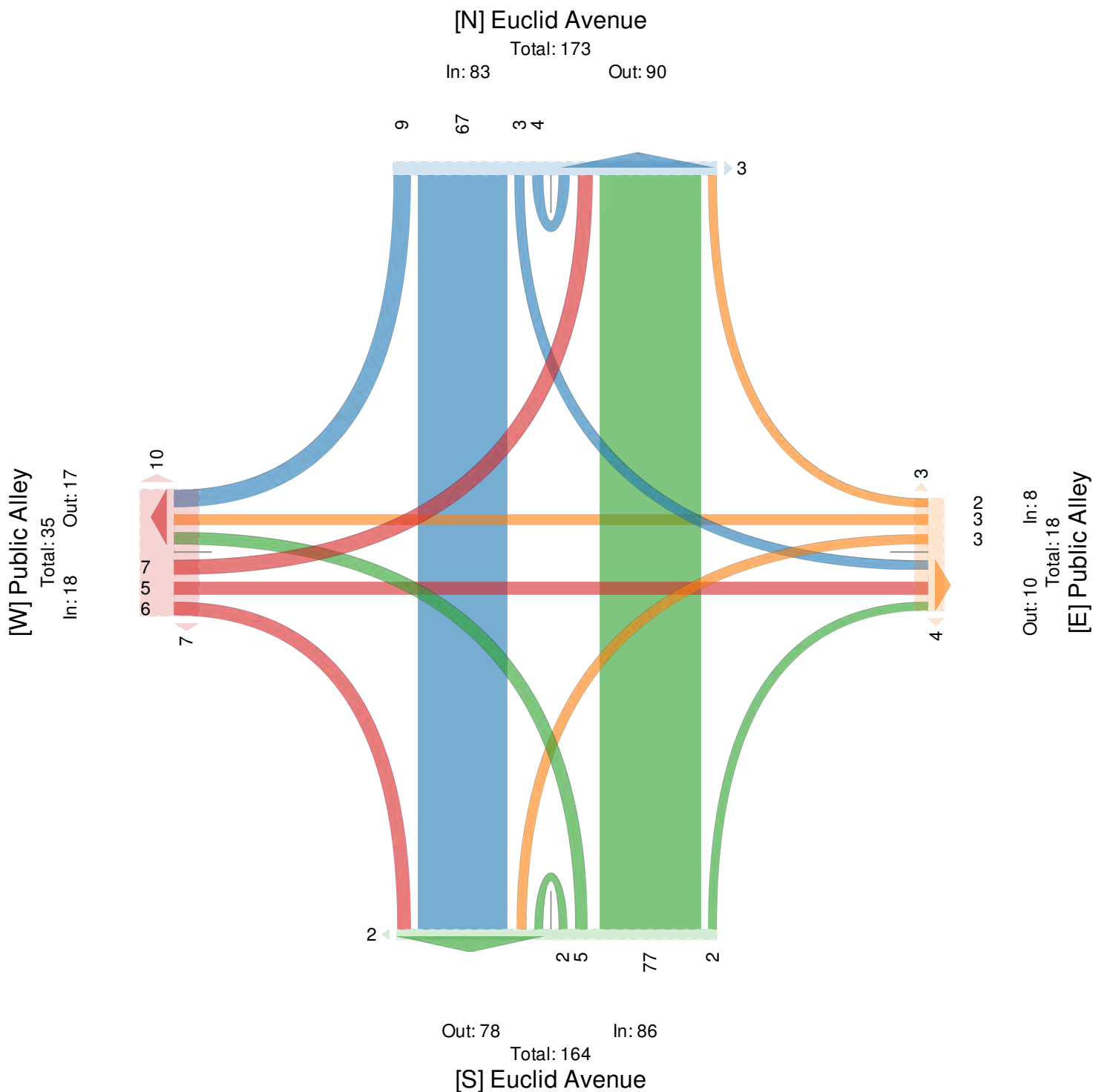
All Movements

ID: 681428, Location: 41.879268, -87.792995



Provided by: Kenig Lindgren O'Hara Aboona, Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Euclid Avenue with Public Alley - 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: 681428, Location: 41.879268, -87.792995



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

Leg Direction	Euclid Avenue Southbound						Public Alley Westbound						Euclid Avenue Northbound						Public Alley Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23 7:30AM	0	4	0	0	4	0	0	1	0	0	1	1	0	7	1	0	8	0	1	0	1	0	2	3	15
7:45AM	0	4	0	0	4	2	0	0	0	0	0	1	0	4	0	0	4	0	0	0	1	0	1	2	9
8:00AM	1	8	1	1	11	0	0	0	1	0	1	2	0	5	2	0	7	0	0	0	0	0	0	3	19
8:15AM	0	4	0	0	4	0	0	1	0	0	1	0	0	2	1	0	3	0	0	0	1	0	1	1	9
Total	1	20	1	1	23	2	0	2	1	0	3	4	0	18	4	0	22	0	1	0	3	0	4	9	52
% Approach	4.3%	87.0%	4.3%	4.3%	-	-	0%	66.7%	33.3%	0%	-	-	0%	81.8%	18.2%	0%	-	-	25.0%	0%	75.0%	0%	-	-	-
% Total	1.9%	38.5%	1.9%	1.9%	44.2%	-	0%	3.8%	1.9%	0%	5.8%	-	0%	34.6%	7.7%	0%	42.3%	-	1.9%	0%	5.8%	0%	7.7%	-	-
PHF	0.250	0.625	0.250	0.250	0.523	-	-	0.500	0.250	-	0.750	-	-	0.571	0.500	-	0.625	-	0.250	-	0.750	-	0.500	-	0.694
Lights	1	20	1	1	23	-	0	2	1	0	3	-	0	16	4	0	20	-	1	0	3	0	4	-	50
% Lights	100%	100%	100%	100%	100%	-	0%	100%	100%	0%	100%	-	0%	88.9%	100%	0%	90.9%	-	100%	0%	100%	0%	100%	-	96.2%
Single-Unit Trucks	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Single-Unit 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
% Articulated Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Buses	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Buses	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	2	0	0	2	-	0	0	0	0	0	-	2
% Bicycles on Road	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	11.1%	0%	0%	9.1%	-	0%	0%	0%	0%	0%	-	3.8%
Pedestrians	-	-	-	-	-	2	-	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	9	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	100%	

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

Euclid Avenue with Public Alley - 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)

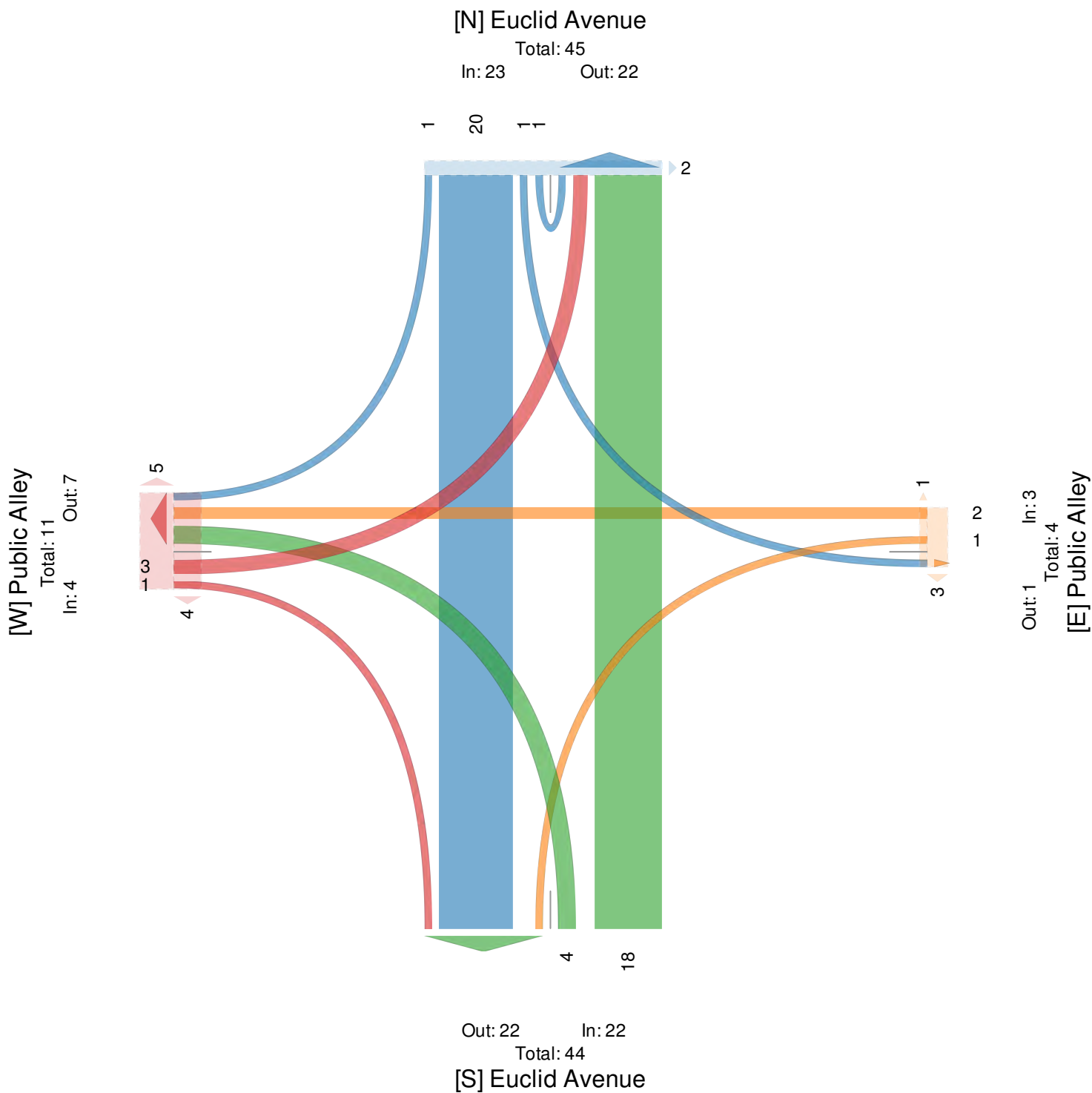
All Movements

ID: 681428, Location: 41.879268, -87.792995



Provided by: Kenig Lindgren O'Hara Aboona,
Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Euclid Avenue with Public Alley - 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: 681428, Location: 41.879268, -87.792995



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

Leg Direction	Euclid Avenue Southbound						Public Alley Westbound						Euclid Avenue Northbound						Public Alley Eastbound							
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int	
2019-07-23 5:00PM	1	4	0	0	5	0	1	0	1	0	2	0	0	5	0	0	0	5	0	0	0	0	0	0	0	12
5:15PM	1	8	0	0	9	0	0	0	0	0	0	0	0	15	0	0	0	15	0	0	0	0	0	0	0	24
5:30PM	1	4	0	0	5	0	0	0	1	0	1	0	1	3	0	0	0	4	0	0	0	1	0	1	0	11
5:45PM	2	3	2	0	7	0	0	0	0	0	0	1	0	5	0	0	0	5	1	1	0	0	0	1	4	13
Total	5	19	2	0	26	0	1	0	2	0	3	1	1	28	0	0	0	29	1	1	0	1	0	2	4	60
% Approach	19.2%	73.1%	7.7%	0%	-	-	33.3%	0%	66.7%	0%	-	-	3.4%	96.6%	0%	0%	-	-	50.0%	0%	50.0%	0%	-	-	-	-
% Total	8.3%	31.7%	3.3%	0%	43.3%	-	1.7%	0%	3.3%	0%	5.0%	-	1.7%	46.7%	0%	0%	48.3%	-	1.7%	0%	1.7%	0%	3.3%	-	-	-
PHF	0.625	0.750	0.250	-	0.786	-	0.250	-	0.500	-	0.375	-	0.250	0.417	-	-	0.433	-	0.250	-	0.250	-	0.500	-	0.631	-
Lights	5	14	2	0	21	-	1	0	2	0	3	-	0	25	0	0	25	-	1	0	1	0	2	-	51	-
% Lights	100%	73.7%	100%	0%	80.8%	-	100%	0%	100%	0%	100%	-	0%	89.3%	0%	0%	86.2%	-	100%	0%	100%	0%	100%	-	85.0%	-
Single-Unit Trucks	0	0	0	0	0	-	0	0	0	0	0	-	1	0	0	0	1	-	0	0	0	0	0	-	1	-
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	100%	0%	0%	0%	3.4%	-	0%	0%	0%	0%	0%	-	1.7%	-
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%	-
Buses	0	1	0	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	1	-
% Buses	0%	5.3%	0%	0%	3.8%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	1.7%	-
Bicycles on Road	0	4	0	0	4	-	0	0	0	0	0	-	0	3	0	0	3	-	0	0	0	0	0	-	7	-
% Bicycles on Road	0%	21.1%	0%	0%	15.4%	-	0%	0%	0%	0%	0%	-	0%	10.7%	0%	0%	10.3%	-	0%	0%	0%	0%	0%	-	11.7%	-
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	4	-	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-

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

Euclid Avenue with Public Alley - 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)

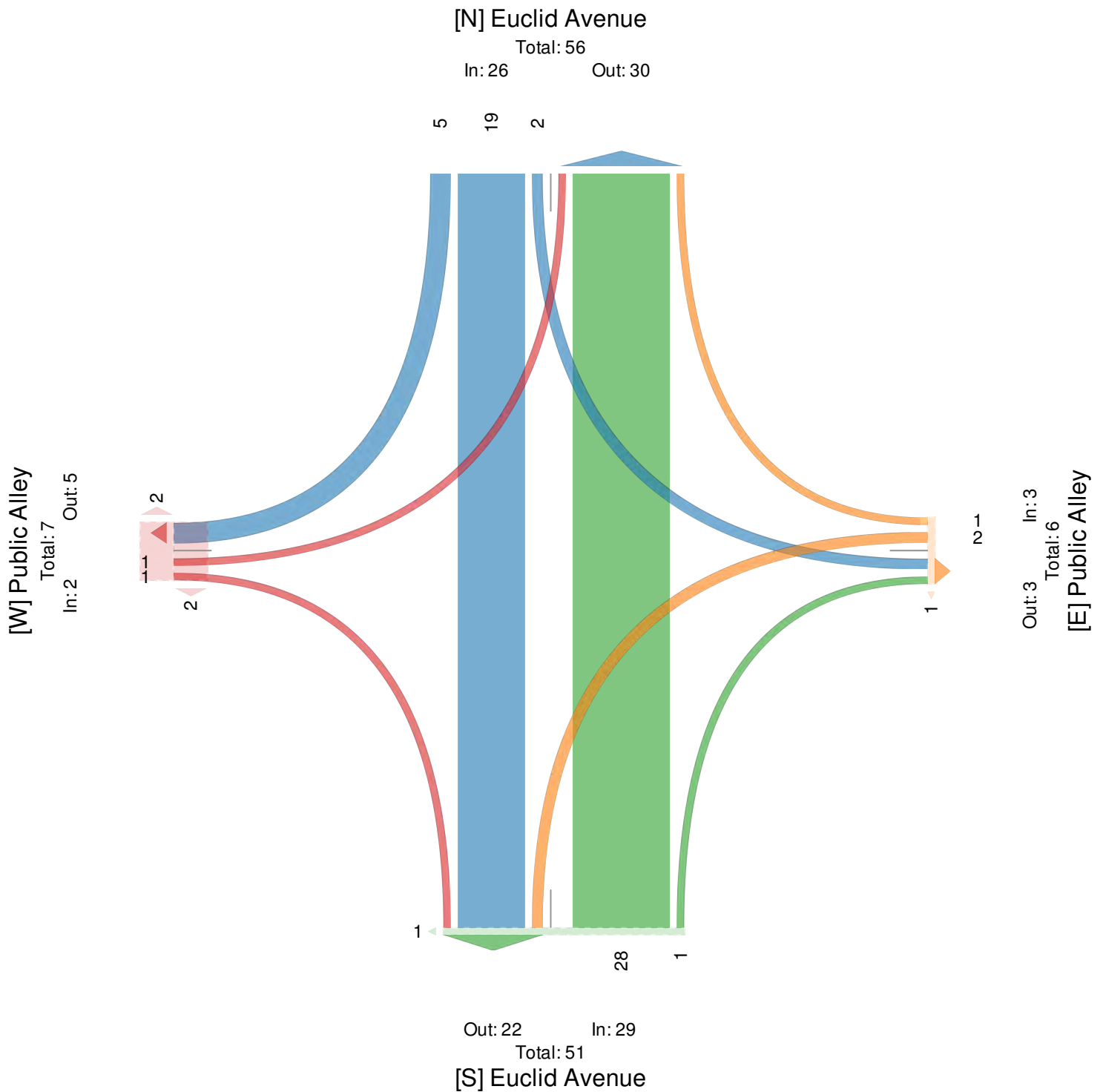
All Movements

ID: 681428, Location: 41.879268, -87.792995



Provided by: Kenig Lindgren O'Hara Aboona,
Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Wesley Avenue with Adams Street - 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: 681416, Location: 41.877977, -87.79171



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

Leg Direction	Wesley Avenue Southbound							Adams Street Westbound							Wesley Avenue Northbound							Adams Street Eastbound							
Time	R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		Int
2019-07-23																													
7:00AM	0	2	0	0	2	2		1	1	0	0	2	1		1	0	2	0	3	4		1	3	1	0	5	0		12
7:15AM	1	1	0	0	2	1		0	6	1	0	7	1		0	2	0	0	2	2		1	6	0	0	7	0		18
7:30AM	0	7	1	0	8	1		3	14	0	0	17	1		0	1	1	0	2	2		0	3	0	0	3	0		30
7:45AM	5	4	0	0	9	0		0	14	1	0	15	0		1	2	0	0	3	4		0	7	1	0	8	0		35
Hourly Total	6	14	1	0	21	4		4	35	2	0	41	3		2	5	3	0	10	12		2	19	2	0	23	0		95
8:00AM	2	2	0	0	4	1		1	6	1	0	8	1		0	6	0	0	6	1		0	7	0	0	7	0		25
8:15AM	0	3	0	0	3	1		1	9	0	0	10	1		0	1	1	0	2	6		1	5	2	0	8	1		23
8:30AM	3	5	0	0	8	1		2	10	1	0	13	0		0	3	0	0	3	6		0	1	2	0	3	0		27
8:45AM	1	2	0	0	3	1		1	11	0	0	12	4		0	3	0	0	3	2		0	4	0	0	4	0		22
Hourly Total	6	12	0	0	18	4		5	36	2	0	43	6		0	13	1	0	14	15		1	17	4	0	22	1		97
4:00PM	3	6	1	0	10	1		0	8	0	0	8	0		1	7	2	0	10	1		1	4	1	0	6	0		34
4:15PM	1	5	0	0	6	0		1	10	1	0	12	0		0	3	0	0	3	6		0	4	0	0	4	0		25
4:30PM	0	5	1	0	6	0		1	6	2	0	9	0		1	0	0	0	1	4		0	4	0	0	4	0		20
4:45PM	1	4	5	0	10	0		1	8	0	0	9	2		1	3	0	0	4	2		2	8	0	0	10	0		33
Hourly Total	5	20	7	0	32	1		3	32	3	0	38	2		3	13	2	0	18	13		3	20	1	0	24	0		112
5:00PM	2	11	1	0	14	0		0	15	1	0	16	0		1	3	2	0	6	4		1	6	1	0	8	0		44
5:15PM	5	6	4	0	15	0		0	10	0	0	10	0		1	0	1	0	2	0		0	2	2	0	4	1		31
5:30PM	2	5	1	0	8	0		3	7	0	0	10	0		1	3	1	0	5	1		0	6	2	0	8	1		31
5:45PM	3	6	1	1	11	0		0	8	1	0	9	1		1	3	0	0	4	1		0	10	0	0	10	0		34
Hourly Total	12	28	7	1	48	0		3	40	2	0	45	1		4	9	4	0	17	6		1	24	5	0	30	2		140
Total	29	74	15	1	119	9		15	143	9	0	167	12		9	40	10	0	59	46		7	80	12	0	99	3		444
% Approach	24.4%	62.2%	12.6%	0.8%	-	-		9.0%	85.6%	5.4%	0%	-	-		15.3%	67.8%	16.9%	0%	-	-		7.1%	80.8%	12.1%	0%	-	-		-
% Total	6.5%	16.7%	3.4%	0.2%	26.8%	-		3.4%	32.2%	2.0%	0%	37.6%	-		2.0%	9.0%	2.3%	0%	13.3%	-		1.6%	18.0%	2.7%	0%	22.3%	-		-
Lights	28	69	15	1	113	-		11	130	9	0	150	-		9	33	8	0	50	-		7	63	12	0	82	-		395
% Lights	96.6%	93.2%	100%	100%	95.0%	-		73.3%	90.9%	100%	0%	89.8%	-		100%	82.5%	80.0%	0%	84.7%	-		100%	78.8%	100%	0%	82.8%	-		89.0%
Single-Unit Trucks	0	2	0	0	2	-		1	0	0	0	1	-		0	1	0	0	1	-		0	0	0	0	0	-		4
% Single-Unit Trucks	0%	2.7%	0%	0%	1.7%	-		6.7%	0%	0%	0%	0.6%	-		0%	2.5%	0%	0%	1.7%	-		0%	0%	0%	0%	0%	-		0.9%
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%
Buses	0	1	0	0	1	-		0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		1
% Buses	0%	1.4%	0%	0%	0.8%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0.2%
Bicycles on Road	1	2	0	0	3	-		3	13	0	0	16	-		0	6	2	0	8	-		0	17	0	0	17	-		44
% Bicycles on Road	3.4%	2.7%	0%	0%	2.5%	-		20.0%	9.1%	0%	0%	9.6%	-		0%	15.0%	20.0%	0%	13.6%	-		0%	21.3%	0%	0%	17.2%	-		9.9%
Pedestrians	-	-	-	-	-	9		-	-	-	-	-	12		-	-	-	-	-	46		-	-	-	-	-	3		
% Pedestrians	-	-	-	-	-	100%		-	-	-	-	-	100%		-	-	-	-	-	100%		-	-	-	-	-	100%		-

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

Wesley Avenue with Adams Street - 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)

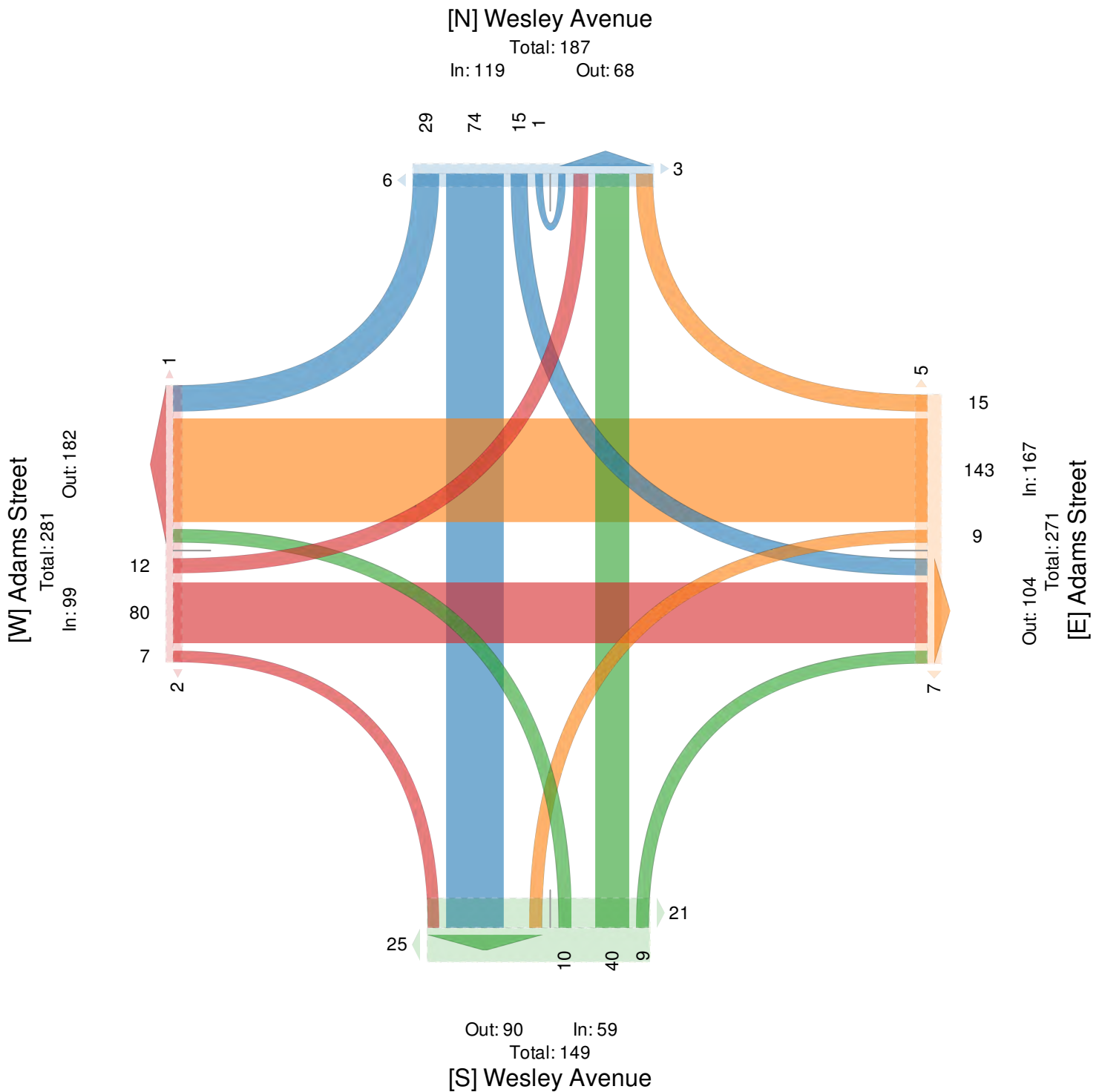
All Movements

ID: 681416, Location: 41.877977, -87.79171



Provided by: Kenig Lindgren O'Hara Aboona,
Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Wesley Avenue with Adams Street - 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: 681416, Location: 41.877977, -87.79171



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

Leg Direction	Wesley Avenue Southbound						Adams Street Westbound						Wesley Avenue Northbound						Adams Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23 7:30AM	0	7	1	0	8	1	3	14	0	0	17	1	0	1	1	0	2	2	0	3	0	0	3	0	30
7:45AM	5	4	0	0	9	0	0	14	1	0	15	0	1	2	0	0	3	4	0	7	1	0	8	0	35
8:00AM	2	2	0	0	4	1	1	6	1	0	8	1	0	6	0	0	6	1	0	7	0	0	7	0	25
8:15AM	0	3	0	0	3	1	1	9	0	0	10	1	0	1	1	0	2	6	1	5	2	0	8	1	23
Total	7	16	1	0	24	3	5	43	2	0	50	3	1	10	2	0	13	13	1	22	3	0	26	1	113
% Approach	29.2%	66.7%	4.2%	0%	-	-	10.0%	86.0%	4.0%	0%	-	-	7.7%	76.9%	15.4%	0%	-	-	3.8%	84.6%	11.5%	0%	-	-	-
% Total	6.2%	14.2%	0.9%	0%	21.2%	-	4.4%	38.1%	1.8%	0%	44.2%	-	0.9%	8.8%	1.8%	0%	11.5%	-	0.9%	19.5%	2.7%	0%	23.0%	-	-
PHF	0.375	0.571	0.250	-	0.719	-	0.333	0.731	0.500	-	0.688	-	0.250	0.375	0.500	-	0.500	-	0.250	0.850	0.375	-	0.656	-	0.806
Lights	6	16	1	0	23	-	3	38	2	0	43	-	1	9	2	0	12	-	1	17	3	0	21	-	99
% Lights	85.7%	100%	100%	0%	95.8%	-	60.0%	88.4%	100%	0%	86.0%	-	100%	90.0%	100%	0%	92.3%	-	100%	77.3%	100%	0%	80.8%	-	87.6%
Single-Unit Trucks	0	0	0	0	0	-	1	0	0	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	1
% Single-Unit Trucks	0%	0%	0%	0%	0%	-	20.0%	0%	0%	0%	2.0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.9%
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%
Buses	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Bicycles on Road	1	0	0	0	1	-	1	5	0	0	6	-	0	1	0	0	1	-	0	5	0	0	5	-	13
% Bicycles on Road	14.3%	0%	0%	0%	4.2%	-	20.0%	11.6%	0%	0%	12.0%	-	0%	10.0%	0%	0%	7.7%	-	0%	22.7%	0%	0%	19.2%	-	11.5%
Pedestrians	-	-	-	-	-	3	-	-	-	-	-	3	-	-	-	-	-	13	-	-	-	-	-	1	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-

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

Wesley Avenue with Adams Street - 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: 681416, Location: 41.877977, -87.79171



Provided by: Kenig Lindgren O'Hara Aboona,
Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US

[N] Wesley Avenue

Total: 42

In: 24 Out: 18

7 16 1

3

1

5

In: 50

Total: 74

[E] Adams Street

Out: 24

2

2

9

2

10

1

4

Out: 19 In: 13

Total: 32

[S] Wesley Avenue

[W] Adams Street

Total: 78

Out: 52

In: 26

3

22

1

1

Wesley Avenue with Adams Street - TMC

Tue Jul 23, 2019

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

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

All Movements

ID: 681416, Location: 41.877977, -87.79171



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

Leg Direction	Wesley Avenue Southbound						Adams Street Westbound						Wesley Avenue Northbound						Adams Street Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23 4:45PM	1	4	5	0	10	0	1	8	0	0	9	2	1	3	0	0	4	2	2	8	0	0	10	0	33
5:00PM	2	11	1	0	14	0	0	15	1	0	16	0	1	3	2	0	6	4	1	6	1	0	8	0	44
5:15PM	5	6	4	0	15	0	0	10	0	0	10	0	1	0	1	0	2	0	0	2	2	0	4	1	31
5:30PM	2	5	1	0	8	0	3	7	0	0	10	0	1	3	1	0	5	1	0	6	2	0	8	1	31
Total	10	26	11	0	47	0	4	40	1	0	45	2	4	9	4	0	17	7	3	22	5	0	30	2	139
% Approach	21.3%	55.3%	23.4%	0%	-	-	8.9%	88.9%	2.2%	0%	-	-	23.5%	52.9%	23.5%	0%	-	-	10.0%	73.3%	16.7%	0%	-	-	-
% Total	7.2%	18.7%	7.9%	0%	33.8%	-	2.9%	28.8%	0.7%	0%	32.4%	-	2.9%	6.5%	2.9%	0%	12.2%	-	2.2%	15.8%	3.6%	0%	21.6%	-	-
PHF	0.500	0.591	0.550	-	0.783	-	0.500	0.692	0.250	-	0.696	-	1.000	0.750	0.750	-	0.800	-	0.375	0.714	0.625	-	0.778	-	0.793
Lights	10	25	11	0	46	-	2	36	1	0	39	-	4	9	3	0	16	-	3	20	5	0	28	-	129
% Lights	100%	96.2%	100%	0%	97.9%	-	50.0%	90.0%	100%	0%	86.7%	-	100%	100%	75.0%	0%	94.1%	-	100%	90.9%	100%	0%	93.3%	-	92.8%
Single-Unit Trucks	0	1	0	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	1
% Single-Unit Trucks	0%	3.8%	0%	0%	2.1%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.7%
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%
Buses	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Bicycles on Road	0	0	0	0	0	-	2	4	0	0	6	-	0	0	1	0	1	-	0	2	0	0	2	-	9
% Bicycles on Road	0%	0%	0%	0%	0%	-	50.0%	10.0%	0%	0%	13.3%	-	0%	0%	25.0%	0%	5.9%	-	0%	9.1%	0%	0%	6.7%	-	6.5%
Pedestrians	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	7	-	-	-	-	-	2	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	100%

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

Wesley Avenue with Adams Street - TMC

Tue Jul 23, 2019

PM Peak (4:45 PM - 5:45 PM) - Overall Peak Hour

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

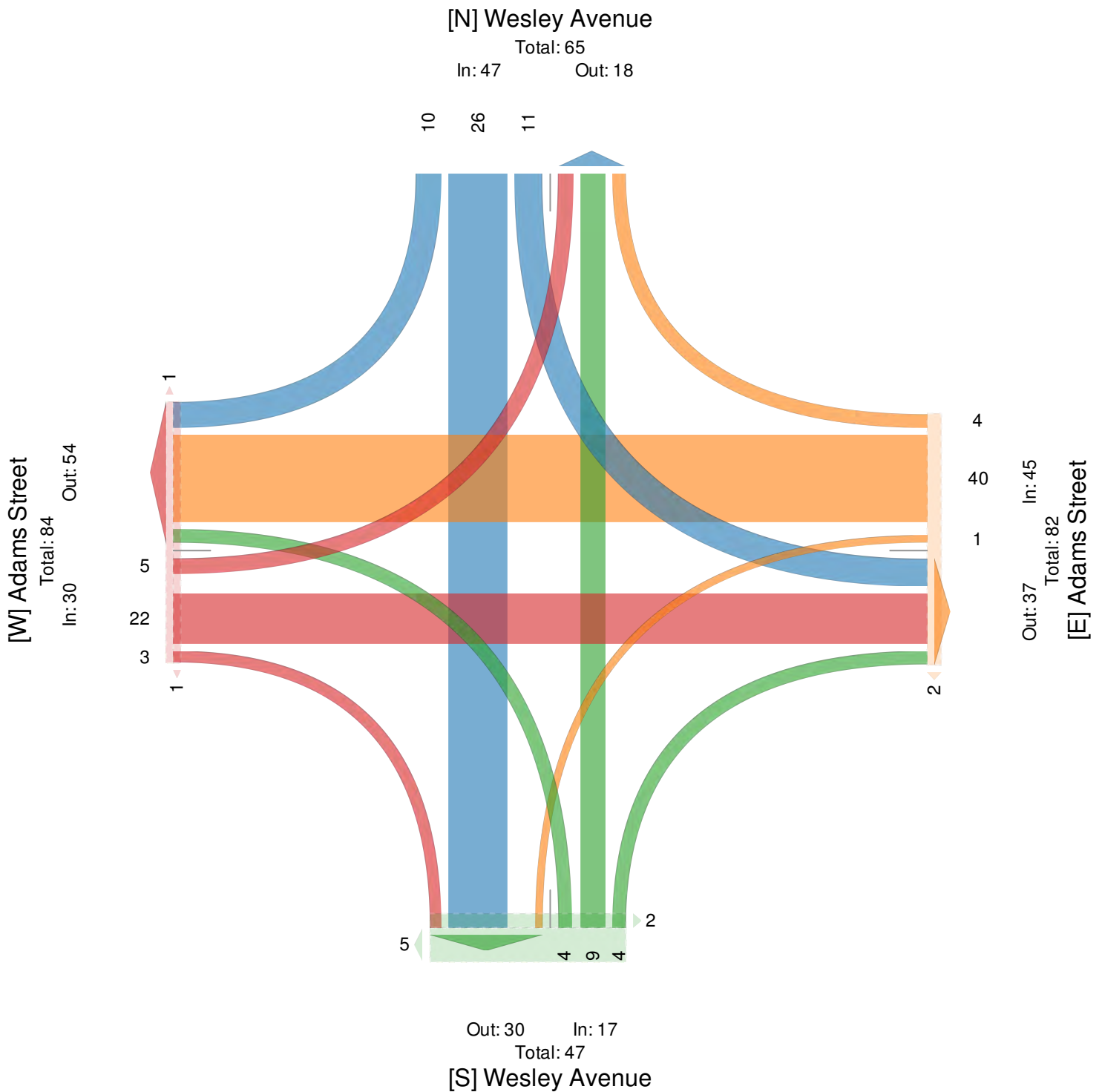
All Movements

ID: 681416, Location: 41.877977, -87.79171



Provided by: Kenig Lindgren O'Hara Aboona,
Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Wesley Avenue with Public Alley - 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: 681421, Location: 41.879281, -87.791789



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

Leg Direction	Wesley Avenue Southbound							Public Alley Westbound							Wesley Avenue Northbound							Public Alley Eastbound							
Time	R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		Int
2019-07-23																													
7:00AM	0	2	0	0	2	20		1	0	0	0	1	4		0	2	1	0	3	0		0	0	1	0	1	3		7
7:15AM	0	2	0	0	2	2		0	0	0	0	0	2		0	1	0	0	1	0		0	0	1	0	1	0		4
7:30AM	0	7	0	0	7	0		0	1	0	0	1	3		0	4	0	0	4	0		0	0	1	0	1	0		13
7:45AM	0	9	0	0	9	0		1	0	0	0	1	1		0	3	0	0	3	0		1	0	1	0	2	0		15
Hourly Total	0	20	0	0	20	22		2	1	0	0	3	10		0	10	1	0	11	0		1	0	4	0	5	3		39
8:00AM	0	5	0	0	5	0		0	0	0	0	0	1		0	5	1	1	7	2		0	0	0	0	0	0		12
8:15AM	1	4	1	1	7	0		0	0	0	0	0	1		1	3	0	0	4	0		0	0	1	0	1	0		12
8:30AM	1	7	0	0	8	1		0	0	0	0	0	1		0	5	0	1	6	0		0	2	0	0	2	0		16
8:45AM	1	3	0	0	4	2		1	0	0	0	1	4		0	4	0	0	4	0		0	0	0	0	0	0		9
Hourly Total	3	19	1	1	24	3		1	0	0	0	1	7		1	17	1	2	21	2		0	2	1	0	3	0		49
4:00PM	1	15	0	0	16	0		0	0	1	0	1	2		0	8	0	0	8	0		0	0	0	0	0	0		25
4:15PM	1	8	0	0	9	0		4	0	0	0	4	0		0	4	1	0	5	0		0	1	1	0	2	0		20
4:30PM	0	7	0	0	7	2		0	0	0	0	0	0		0	2	0	0	2	1		0	0	0	0	0	0		9
4:45PM	0	6	0	0	6	0		0	0	0	0	0	1		0	3	0	0	3	1		0	2	1	0	3	0		12
Hourly Total	2	36	0	0	38	2		4	0	1	0	5	3		0	17	1	0	18	2		0	3	2	0	5	0		66
5:00PM	1	9	0	0	10	0		0	0	0	0	0	2		0	3	2	1	6	2		0	0	0	0	0	2		16
5:15PM	1	14	0	0	15	0		0	0	0	0	0	2		0	1	0	0	1	0		0	0	0	0	0	0		16
5:30PM	0	5	0	2	7	0		0	0	2	0	2	1		1	4	0	0	5	0		1	0	0	0	1	0		15
5:45PM	0	10	0	0	10	0		0	0	1	0	1	1		0	3	0	0	3	0		0	0	0	0	0	1		14
Hourly Total	2	38	0	2	42	0		0	0	3	0	3	6		1	11	2	1	15	2		1	0	0	0	1	3		61
Total	7	113	1	3	124	27		7	1	4	0	12	26		2	55	5	3	65	6		2	5	7	0	14	6		215
% Approach	5.6%	91.1%	0.8%	2.4%	-	-		58.3%	8.3%	33.3%	0%	-	-		3.1%	84.6%	7.7%	4.6%	-	-		14.3%	35.7%	50.0%	0%	-	-		-
% Total	3.3%	52.6%	0.5%	1.4%	57.7%	-		3.3%	0.5%	1.9%	0%	5.6%	-		0.9%	25.6%	2.3%	1.4%	30.2%	-		0.9%	2.3%	3.3%	0%	6.5%	-		-
Lights	6	108	1	3	118	-		4	1	4	0	9	-		1	48	5	3	57	-		1	1	6	0	8	-		192
% Lights	85.7%	95.6%	100%	100%	95.2%	-		57.1%	100%	100%	0%	75.0%	-		50.0%	87.3%	100%	100%	87.7%	-		50.0%	20.0%	85.7%	0%	57.1%	-		89.3%
Single-Unit Trucks	0	1	0	0	1	-		0	0	0	0	0	-		0	0	0	0	0	-		1	0	0	0	1	-		2
% Single-Unit Trucks	0%	0.9%	0%	0%	0.8%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		50.0%	0%	0%	0%	7.1%	-		0.9%
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%
Buses	0	1	0	0	1	-		0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		1
% Buses	0%	0.9%	0%	0%	0.8%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0.5%
Bicycles on Road	1	3	0	0	4	-		3	0	0	0	3	-		1	7	0	0	8	-		0	4	1	0	5	-		20
% Bicycles on Road	14.3%	2.7%	0%	0%	3.2%	-		42.9%	0%	0%	0%	25.0%	-		50.0%	12.7%	0%	0%	12.3%	-		0%	80.0%	14.3%	0%	35.7%	-		9.3%
Pedestrians	-	-	-	-	-	27		-	-	-	-	-	26		-	-	-	-	-	6		-	-	-	-	-	6		
% Pedestrians	-	-	-	-	-	100%		-	-	-	-	-	100%		-	-	-	-	-	100%		-	-	-	-	-	100%		

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

Wesley Avenue with Public Alley - 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)

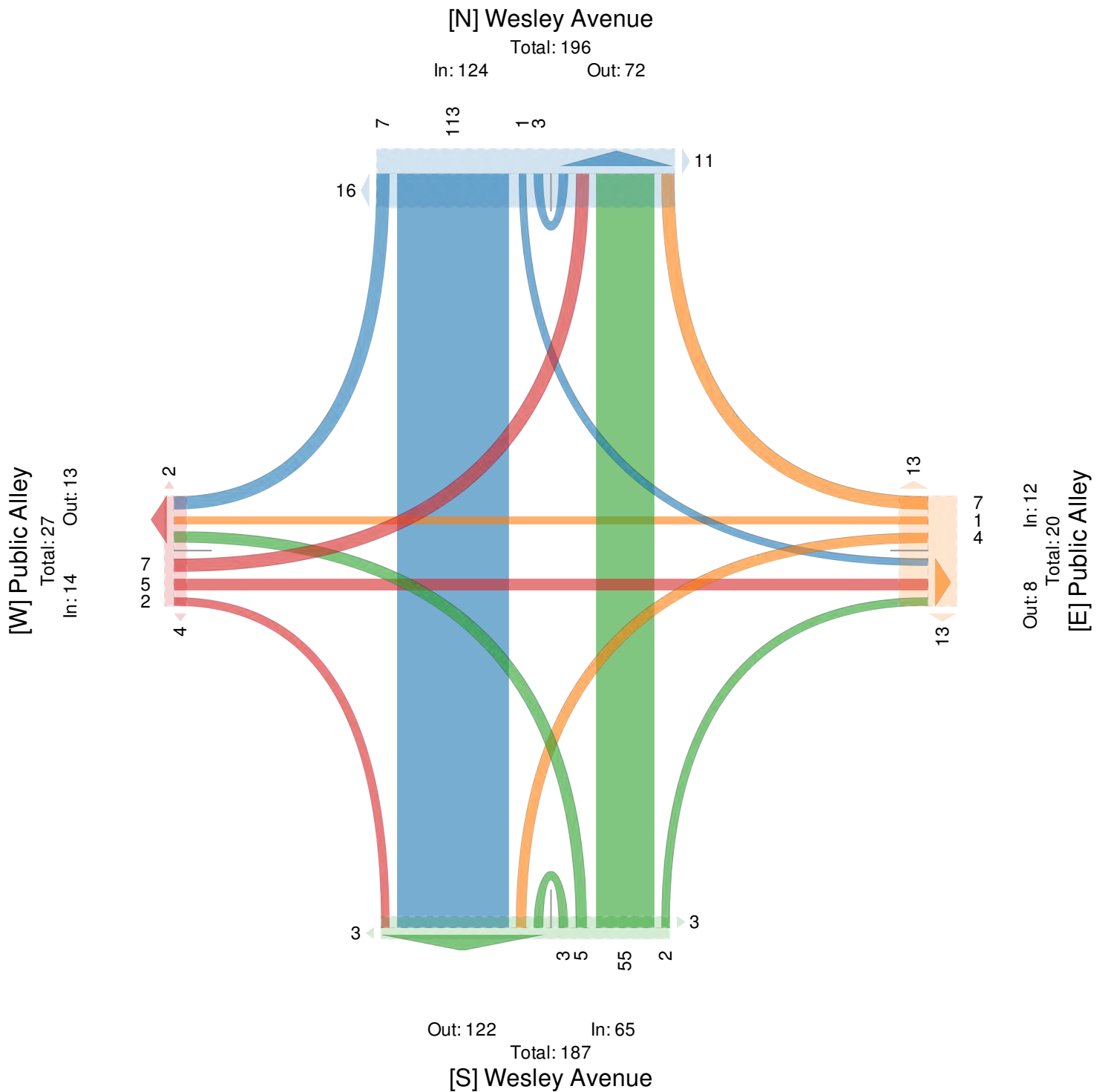
All Movements

ID: 681421, Location: 41.879281, -87.791789



Provided by: Kenig Lindgren O'Hara Aboona,
Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Wesley Avenue with Public Alley - TMC

Tue Jul 23, 2019

AM Peak (7:45 AM - 8:45 AM)

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

All Movements

ID: 681421, Location: 41.879281, -87.791789



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

Leg Direction	Wesley Avenue Southbound						Public Alley Westbound						Wesley Avenue Northbound						Public Alley Eastbound						
Time	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	R	T	L	U	App	Ped*	Int
2019-07-23 7:45AM	0	9	0	0	9	0	1	0	0	0	1	1	0	3	0	0	3	0	1	0	1	0	2	0	15
8:00AM	0	5	0	0	5	0	0	0	0	0	0	1	0	5	1	1	7	2	0	0	0	0	0	0	12
8:15AM	1	4	1	1	7	0	0	0	0	0	0	1	1	3	0	0	4	0	0	0	1	0	1	0	12
8:30AM	1	7	0	0	8	1	0	0	0	0	0	1	0	5	0	1	6	0	0	2	0	0	2	0	16
Total	2	25	1	1	29	1	1	0	0	0	1	4	1	16	1	2	20	2	1	2	2	0	5	0	55
% Approach	6.9%	86.2%	3.4%	3.4%	-	-	100%	0%	0%	0%	-	-	5.0%	80.0%	5.0%	10.0%	-	-	20.0%	40.0%	40.0%	0%	-	-	-
% Total	3.6%	45.5%	1.8%	1.8%	52.7%	-	1.8%	0%	0%	0%	1.8%	-	1.8%	29.1%	1.8%	3.6%	36.4%	-	1.8%	3.6%	3.6%	0%	9.1%	-	-
PHF	0.500	0.750	0.250	0.250	0.875	-	-	-	-	-	-	-	-	0.750	0.250	0.500	0.643	-	0.250	-	0.500	-	0.375	-	0.875
Lights	2	23	1	1	27	-	0	0	0	0	0	-	0	15	1	2	18	-	1	0	2	0	3	-	48
% Lights	100%	92.0%	100%	100%	93.1%	-	0%	0%	0%	0%	0%	-	0%	93.8%	100%	100%	90.0%	-	100%	0%	100%	0%	60.0%	-	87.3%
Single-Unit Trucks	0	1	0	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	1
% Single-Unit Trucks	0%	4.0%	0%	0%	3.4%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	1.8%
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%
Buses	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
% Buses	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
Bicycles on Road	0	1	0	0	1	-	1	0	0	0	1	-	1	1	0	0	2	-	0	2	0	0	2	-	6
% Bicycles on Road	0%	4.0%	0%	0%	3.4%	-	100%	0%	0%	0%	100%	-	100%	6.3%	0%	0%	10.0%	-	0%	100%	0%	0%	40.0%	-	10.9%
Pedestrians	-	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	2	-	-	-	-	-	0	
% Pedestrians	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	-	

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

Wesley Avenue with Public Alley - TMC

Tue Jul 23, 2019

AM Peak (7:45 AM - 8:45 AM)

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

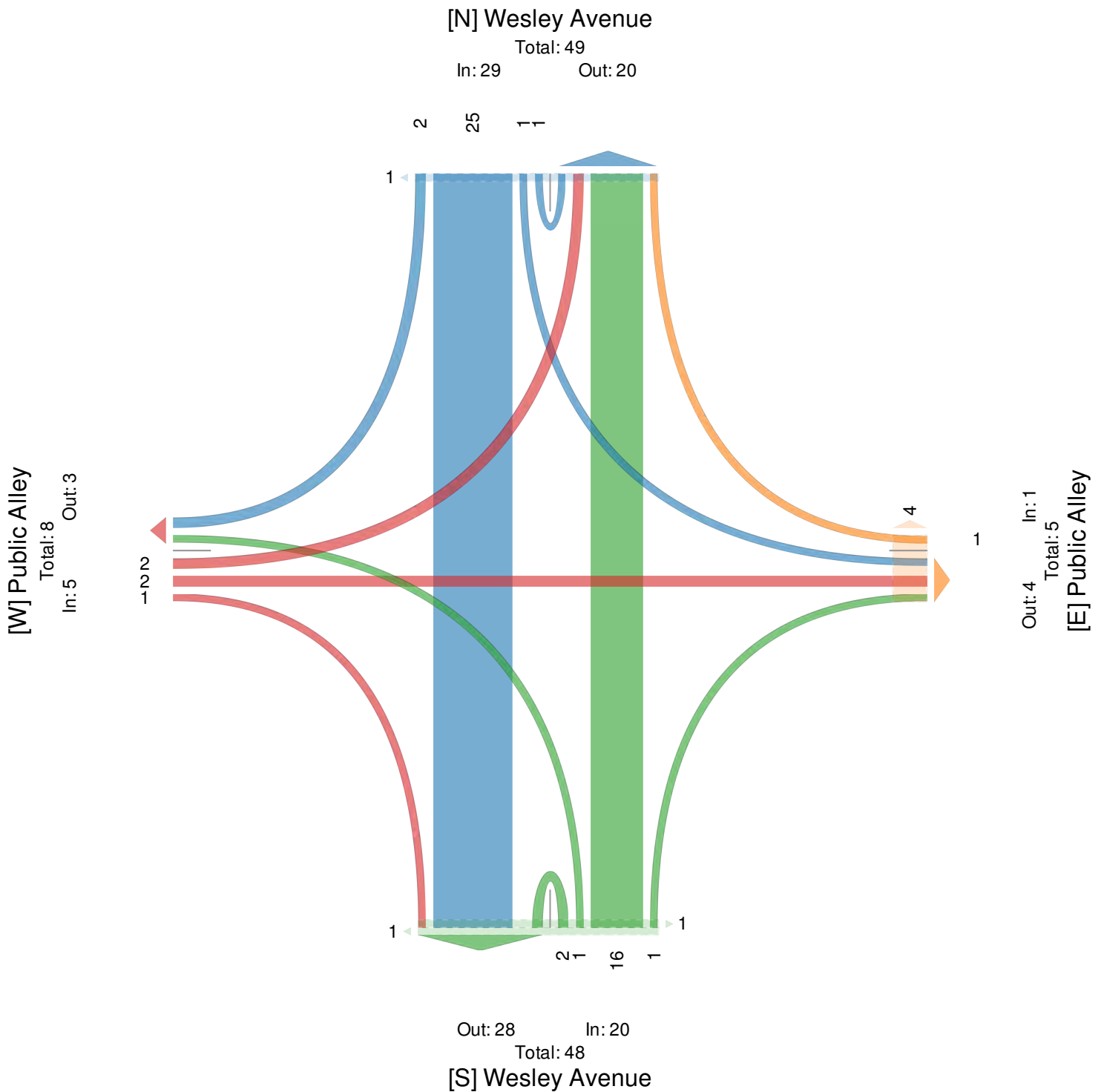
All Movements

ID: 681421, Location: 41.879281, -87.791789



Provided by: Kenig Lindgren O'Hara Aboona,
Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Wesley Avenue with Public Alley - 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: 681421, Location: 41.879281, -87.791789



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

Leg Direction	Wesley Avenue Southbound							Public Alley Westbound							Wesley Avenue Northbound							Public Alley Eastbound							
Time	R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		R	T	L	U	App	Ped*		Int
2019-07-23																													
5:00PM	1	9	0	0	10	0		0	0	0	0	0	2		0	3	2	1	6	2		0	0	0	0	0	2		16
5:15PM	1	14	0	0	15	0		0	0	0	0	0	2		0	1	0	0	1	0		0	0	0	0	0	0		16
5:30PM	0	5	0	2	7	0		0	0	2	0	2	1		1	4	0	0	5	0		1	0	0	0	1	0		15
5:45PM	0	10	0	0	10	0		0	0	1	0	1	1		0	3	0	0	3	0		0	0	0	0	0	1		14
Total	2	38	0	2	42	0		0	0	3	0	3	6		1	11	2	1	15	2		1	0	0	0	1	3		61
% Approach	4.8%	90.5%	0%	4.8%	-	-		0%	0%	100%	0%	-	-		6.7%	73.3%	13.3%	6.7%	-	-		100%	0%	0%	0%	-	-		-
% Total	3.3%	62.3%	0%	3.3%	68.9%	-		0%	0%	4.9%	0%	4.9%	-		1.6%	18.0%	3.3%	1.6%	24.6%	-		1.6%	0%	0%	0%	1.6%	-		-
PHF	0.500	0.679	-	0.250	0.700	-		-	-	0.375	-	0.375	-		0.250	0.688	0.250	0.250	0.625	-		0.250	-	-	-	0.250	-		0.953
Lights	2	38	0	2	42	-		0	0	3	0	3	-		1	11	2	1	15	-		0	0	0	0	0	-		60
% Lights	100%	100%	0%	100%	100%	-		0%	0%	100%	0%	100%	-		100%	100%	100%	100%	100%	-		0%	0%	0%	0%	0%	-		98.4%
Single-Unit Trucks	0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		1	0	0	0	1	-		1
% Single-Unit Trucks	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		100%	0%	0%	0%	100%	-		1.6%
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%
Buses	0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		0
% Buses	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%
Bicycles on Road	0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		0	0	0	0	0	-		0
% Bicycles on Road	0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%	0%	0%	0%	0%	-		0%
Pedestrians	-	-	-	-	-	0		-	-	-	-	-	6		-	-	-	-	-	2		-	-	-	-	-	3		
% Pedestrians	-	-	-	-	-	-		-	-	-	-	-	100%		-	-	-	-	-	100%		-	-	-	-	-	-		-

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

Wesley Avenue with Public Alley - 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)

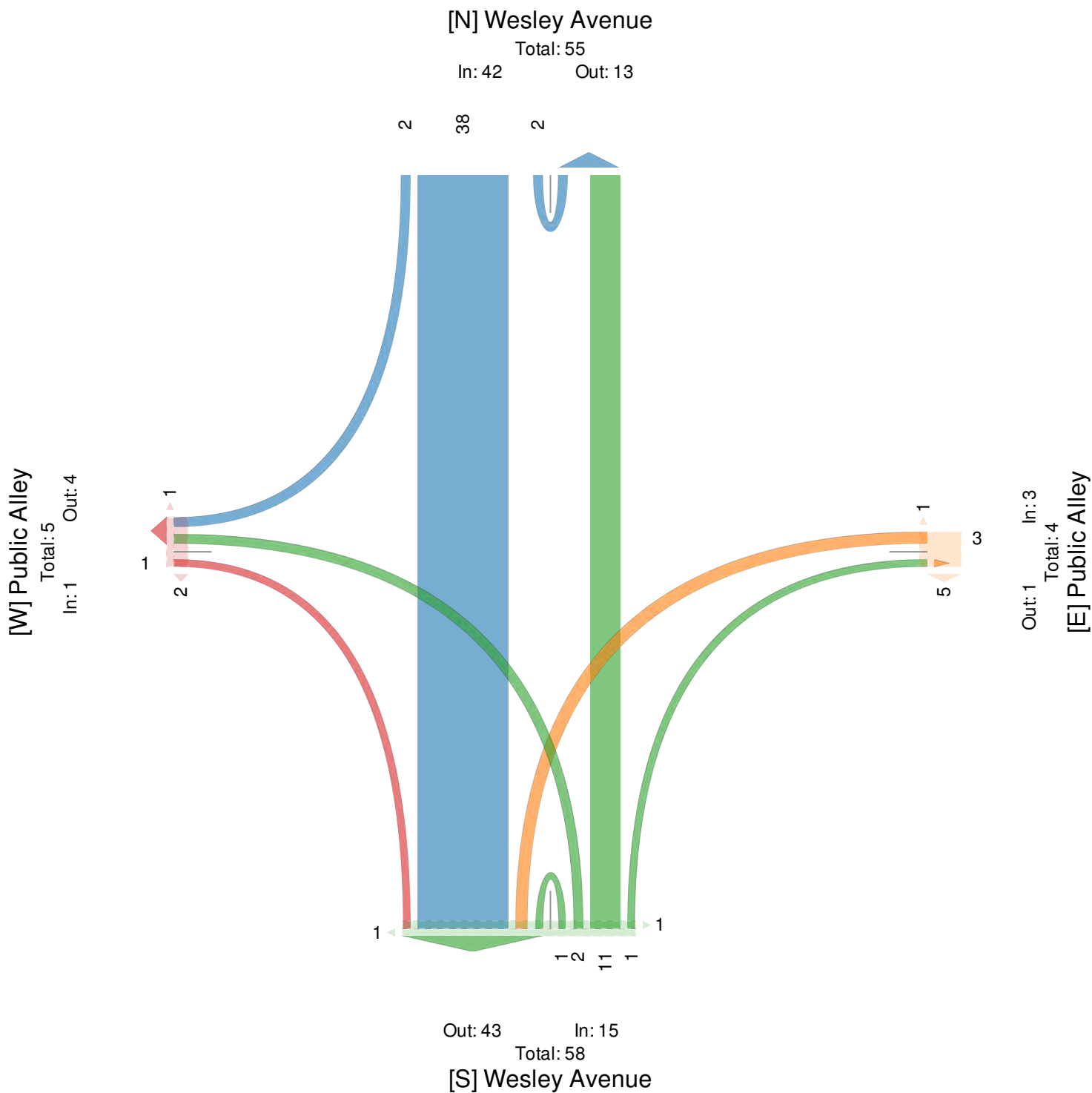
All Movements

ID: 681421, Location: 41.879281, -87.791789



Provided by: Kenig Lindgren O'Hara Aboona,
Inc.

9575 W. Higgins Rd., Suite 400,
Rosemont, IL, 60018, US



Oak Park, IL Weather: Cold and Morning Rain
 Madison St and Wesley Ave
 Monday December 9, 2019

12/10/19
 13:02:18

URNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 1 madison/wesley													
Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
700	6	0	1	2	0	0	0	0	0	0	170	11	190
715	5	0	1	1	0	0	0	0	0	0	167	5	179
730	10	0	2	8	0	0	0	0	0	0	205	16	241
745	23	0	3	6	0	0	0	0	0	0	193	11	236
800	11	0	2	4	0	0	0	0	0	0	110	9	136
815	6	0	3	3	0	0	0	0	0	0	143	4	159
830	2	0	1	2	0	0	0	0	0	0	145	1	151
845	3	0	2	3	0	0	0	0	0	0	129	4	141

1600	7	0	4	7	0	0	0	0	0	0	163	4	185
1615	11	0	1	5	0	0	0	0	0	0	164	0	181
1630	7	0	2	2	0	0	0	0	0	0	162	2	175
1645	11	0	5	2	0	0	0	0	0	0	154	5	177
1700	17	0	2	2	0	0	0	0	0	0	182	5	208
1715	8	0	1	3	0	0	0	0	0	0	169	5	186
1730	12	0	2	3	0	0	0	0	0	0	158	10	185
1745	8	0	3	4	0	0	0	0	0	0	168	3	186
====	====	====	====	====	====	====	====	====	====	====	====	====	====
Total	147	0	35	57	0	0	0	0	0	0	2582	95	2916

URNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - Totals

Intersection # 1 madison/wesley									
Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
700	7	2	0	181	13	171	0	6	190
715	6	1	0	172	6	168	0	5	179
730	12	8	0	221	24	207	0	10	241
745	26	6	0	204	17	196	0	23	236
800	13	4	0	119	13	112	0	11	136
815	9	3	0	147	7	146	0	6	159
830	3	2	0	146	3	146	0	2	151
845	5	3	0	133	7	131	0	3	141

1600	11	7	0	167	11	167	0	7	185
1615	12	5	0	164	5	165	0	11	181
1630	9	2	0	164	4	164	0	7	175
1645	16	2	0	159	7	159	0	11	177
1700	19	2	0	187	7	184	0	17	208
1715	9	3	0	174	8	170	0	8	186
1730	14	3	0	168	13	160	0	12	185
1745	11	4	0	171	7	171	0	8	186
====	====	====	====	====	====	====	====	====	====
Total	182	57	0	2677	152	2617	0	147	2916

12/10/19
13:02:18

[illegible]

Intersection # 1 madison/wesley									
Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
700	28	8	0	724	52	684	0	24	760
715	24	4	0	688	24	672	0	20	716
730	48	32	0	884	96	828	0	40	964
745	104	24	0	816	68	784	0	92	944
800	52	16	0	476	52	448	0	44	544
815	36	12	0	588	28	584	0	24	636
830	12	8	0	584	12	584	0	8	604
845	20	12	0	532	28	524	0	12	564
1600	44	28	0	668	44	668	0	28	740
1615	48	20	0	656	20	660	0	44	724
1630	36	8	0	656	16	656	0	28	700
1645	64	8	0	636	28	636	0	44	708
1700	76	8	0	748	28	736	0	68	832
1715	36	12	0	696	32	680	0	32	744
1730	56	12	0	672	52	640	0	48	740
1745	44	16	0	684	28	684	0	32	744

12/10/19
13:02:18

Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
700	51	17	0	778	60	742	0	44	846
715	57	19	0	716	60	683	0	49	792
730	60	21	0	691	61	661	0	50	772
745	51	15	0	616	40	600	0	42	682
800	30	12	0	545	30	535	0	22	587
815	17	8	0	426	17	423	0	11	451*
830	8	5	0	279	10	277	0	5	292*
845	5	3	0	133	7	131	0	3	141*
1600	48	16	0	654	27	655	0	36	718
1615	56	11	0	674	23	672	0	46	741
1630	53	9	0	684	26	677	0	43	746
1645	58	10	0	688	35	673	0	48	756
1700	53	12	0	700	35	685	0	45	765
1715	34	10	0	513	28	501	0	28	557*
1730	25	7	0	339	20	331	0	20	371*
1745	11	4	0	171	7	171	0	8	186*

Oak Park, IL Weather: Cold and Morning Rain
 Madison St and Clarence Ave
 Monday December 9, 2019

12/10/19
 06:11:09

URNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - by Mvmt

Intersection # 2 madison/clarence													
Begin Time	N-Approach			E-Approach			S-Approach			W-Approach			Int Total
	RT	TH	LT	RT	TH	LT	RT	TH	LT	RT	TH	LT	
700	0	0	0	0	119	0	0	0	0	0	0	0	119
715	0	0	0	0	172	2	3	0	0	5	0	0	182
730	0	0	0	0	189	1	4	0	11	2	0	0	207
745	0	0	0	0	170	3	5	0	1	2	0	0	181
800	0	0	0	0	176	1	6	0	3	3	0	0	189
815	0	0	0	0	182	1	3	0	1	1	0	0	188
830	0	0	0	0	138	0	2	0	2	1	0	0	143
845	0	0	0	0	163	3	4	0	2	3	0	0	175

1600	0	0	0	0	190	1	3	0	2	3	0	0	199
1615	0	0	0	0	186	3	2	0	2	3	0	0	196
1630	0	0	0	0	167	0	1	0	1	5	0	0	174
1645	0	0	0	0	156	1	1	0	0	6	0	0	164
1700	0	0	0	0	168	0	1	0	1	8	0	0	178
1715	0	0	0	0	180	4	2	0	0	2	0	0	188
1730	0	0	0	0	182	1	6	0	0	4	0	0	193
1745	0	0	0	0	177	4	0	0	4	2	0	0	187
=====													
Total	0	0	0	0	2715	25	43	0	30	50	0	0	2863

URNS/TEAPAC[Ver 3.61.12] - 15-Minute Counts: All Vehicles - Totals

Intersection # 2 madison/clarence									
Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
700	0	119	0	0	0	0	0	119	119
715	0	174	3	5	0	3	7	172	182
730	0	190	15	2	0	4	3	200	207
745	0	173	6	2	0	5	5	171	181
800	0	177	9	3	0	6	4	179	189
815	0	183	4	1	0	3	2	183	188
830	0	138	4	1	0	2	1	140	143
845	0	166	6	3	0	4	6	165	175

1600	0	191	5	3	0	3	4	192	199
1615	0	189	4	3	0	2	6	188	196
1630	0	167	2	5	0	1	5	168	174
1645	0	157	1	6	0	1	7	156	164
1700	0	168	2	8	0	1	8	169	178
1715	0	184	2	2	0	2	6	180	188
1730	0	183	6	4	0	6	5	182	193
1745	0	181	4	2	0	0	6	181	187
=====									
Total	0	2740	73	50	0	43	75	2745	2863

12/10/19
06:11:09

Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
700	0	476	0	0	0	0	0	476	476
715	0	696	12	20	0	12	28	688	728
730	0	760	60	8	0	16	12	800	828
745	0	692	24	8	0	20	20	684	724
800	0	708	36	12	0	24	16	716	756
815	0	732	16	4	0	12	8	732	752
830	0	552	16	4	0	8	4	560	572
845	0	664	24	12	0	16	24	660	700
1600	0	764	20	12	0	12	16	768	796
1615	0	756	16	12	0	8	24	752	784
1630	0	668	8	20	0	4	20	672	696
1645	0	628	4	24	0	4	28	624	656
1700	0	672	8	32	0	4	32	676	712
1715	0	736	8	8	0	8	24	720	752
1730	0	732	24	16	0	24	20	728	772
1745	0	724	16	8	0	0	24	724	748

12/10/19
06:11:09

Intersection # 2 madison/clarence

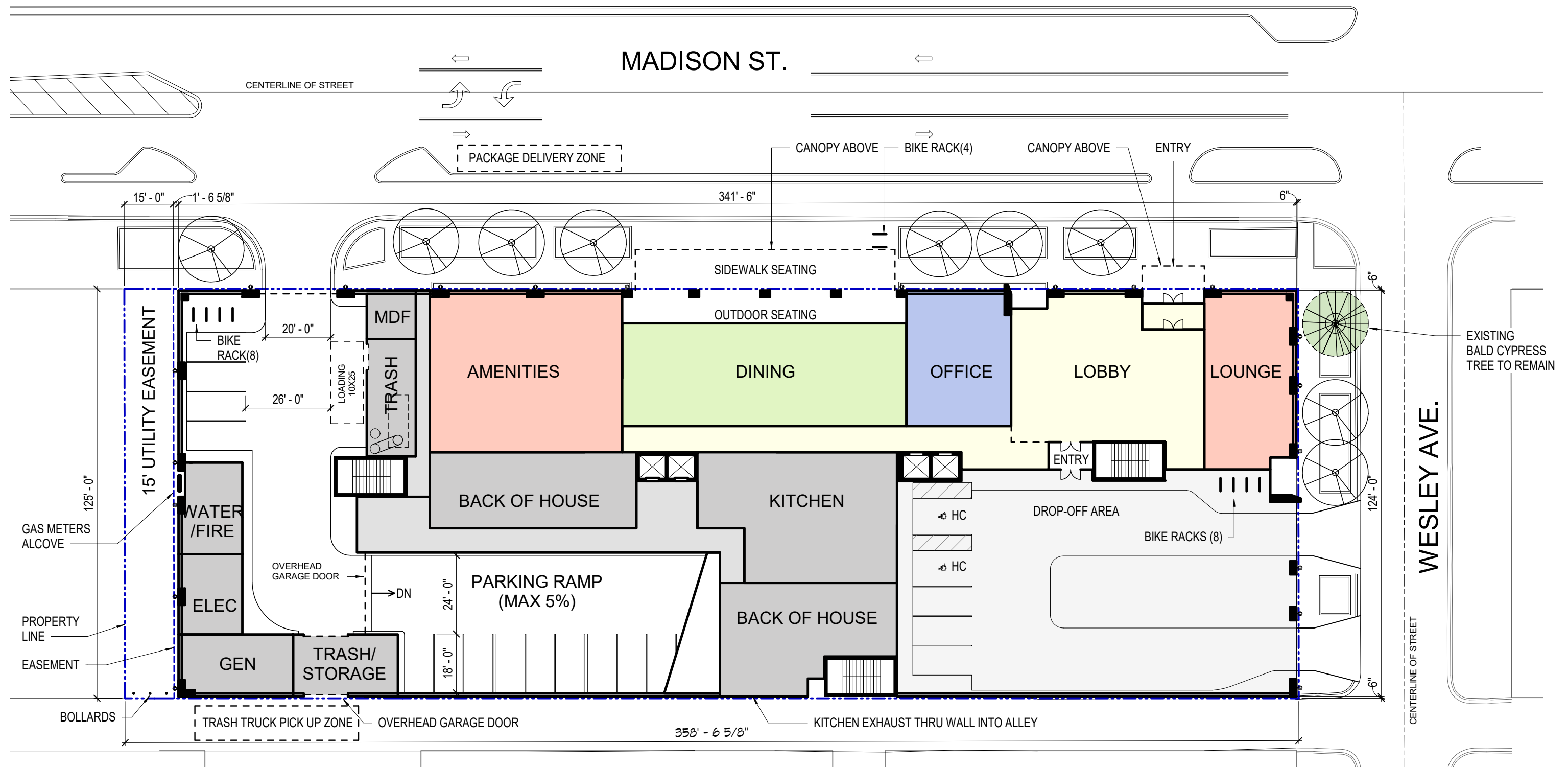
URNS/TEAPAC[Ver 3.61.12] - 60-Minute Volumes: Appr/Exit Totals

Intersection # 2 madison/clarence

Begin Time	Approach Totals				Exit Totals				Int Total
	N	E	S	W	N	E	S	W	
700	0	656	24	9	0	12	15	662	689
715	0	714	33	12	0	18	19	722	759
730	0	723	34	8	0	18	14	733	765
745	0	671	23	7	0	16	12	673	701
800	0	664	23	8	0	15	13	667	695
815	0	487	14	5	0	9	9	488	506*
830	0	304	10	4	0	6	7	305	318*
845	0	166	6	3	0	4	6	165	175*
1600	0	704	12	17	0	7	22	704	733
1615	0	681	9	22	0	5	26	681	712
1630	0	676	7	21	0	5	26	673	704
1645	0	692	11	20	0	10	26	687	723
1700	0	716	14	16	0	9	25	712	746
1715	0	548	12	8	0	8	17	543	568*
1730	0	364	10	6	0	6	11	363	380*
1745	0	181	4	2	0	0	6	181	187*

Site Plan

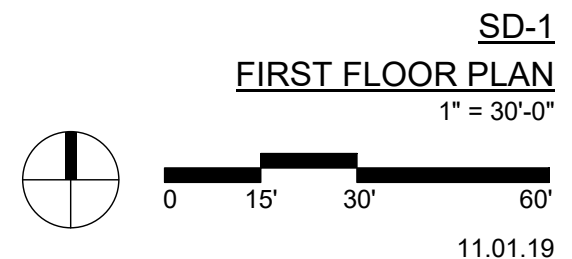
MADISON ST.



OAK PARK SENIOR LIVING

711 MADISON ST, OAK PARK

COPYRIGHT 2019: MYEFSKI ARCHITECTS, INC. EXPRESSLY RESERVES ITS COMMON LAW COPYRIGHT AND OTHER PROPERTY RIGHTS IN THESE DRAWINGS. THESE DRAWINGS ARE NOT TO BE REPRODUCED, CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER, NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESSED WRITTEN PERMISSION OF MYEFSKI ARCHITECTS, INC.



11.01.19



Level of Service Criteria

LEVEL OF SERVICE CRITERIA

Signalized Intersections		
Level of Service	Interpretation	Average Control Delay (seconds per vehicle)
A	Favorable progression. Most vehicles arrive during the green indication and travel through the intersection without stopping.	≤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*, 6th Edition.

Capacity Analysis Summary Sheets

Lanes, Volumes, Timings

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	902	37	98	722	124	123	447	61	138	431	96
Future Volume (vph)	100	902	37	98	722	124	123	447	61	138	431	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	11	11	10	10	12	10	10	12
Storage Length (ft)	85		50	70		100	95		0	100		0
Storage Lanes	1		1	1		1	1		0	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			0.95			0.97	0.98	0.99		0.98	0.99	
Frt			0.850			0.850		0.982			0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1636	1722	1380	1652	1766	1336	1668	3169	0	1652	3169	0
Flt Permitted	0.089			0.089			0.229			0.246		
Satd. Flow (perm)	153	1722	1315	155	1766	1296	394	3169	0	420	3169	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		532			329			187			195	
Travel Time (s)		12.1			7.5			4.3			4.4	
Confl. Peds. (#/hr)	11		10	10		11	21		19	19		21
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	3%	3%	2%	4%	2%	1%	4%	0%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	0
Parking (#/hr)			4			4			4			4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	106	960	39	104	768	132	131	541	0	147	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)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	24.0	24.0	8.0	24.0	24.0	9.0	24.0		9.0	24.0	
Total Split (s)	8.0	50.0	50.0	8.0	50.0	50.0	9.0	33.0		9.0	33.0	
Total Split (%)	8.0%	50.0%	50.0%	8.0%	50.0%	50.0%	9.0%	33.0%		9.0%	33.0%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	1.0	-2.0	0.0	1.0	-2.0	0.0	1.0	-2.0		1.0	-2.0	
Total Lost Time (s)	4.0	4.0	6.0	4.0	4.0	6.0	4.0	4.0		4.0	4.0	
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	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	53.9	48.1	46.1	53.8	48.0	46.0	30.2	25.2		30.2	25.2	
Actuated g/C Ratio	0.54	0.48	0.46	0.54	0.48	0.46	0.30	0.25		0.30	0.25	
v/c Ratio	0.63	1.16	0.06	0.62	0.91	0.22	0.72	0.68		0.78	0.70	
Control Delay	32.2	112.2	16.5	25.6	35.3	12.4	47.7	38.0		54.4	38.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	32.2	112.2	16.5	25.6	35.3	12.4	47.7	38.0		54.4	38.8	

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	F	B	C	D	B	D	D		D	D	
Approach Delay		101.1			31.3			39.9			42.1	
Approach LOS		F			C			D			D	
Queue Length 50th (ft)	29	~752	14	19	485	47	59	163		67	170	
Queue Length 95th (ft)	#94	#991	34	m35	m#652	m61	#115	211		#135	220	
Internal Link Dist (ft)		452			249			107			115	
Turn Bay Length (ft)	85		50	70		100	95			100		
Base Capacity (vph)	168	828	606	169	848	596	182	919		188	919	
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	0.63	1.16	0.06	0.62	0.91	0.22	0.72	0.59		0.78	0.61	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green.

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.16

Intersection Signal Delay: 57.3

Intersection LOS: E

Intersection Capacity Utilization 88.6%

ICU Level of Service E

Analysis Period (min) 15

- ~ Volume exceeds capacity, queue is theoretically infinite.

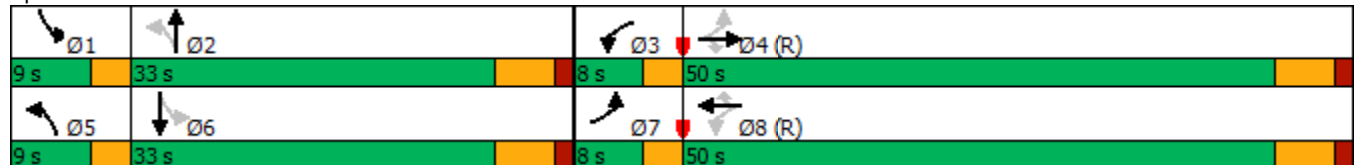
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Oak Park Avenue & Madison Street



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

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	891	33	34	793	50	74	258	37	67	150	67
Future Volume (vph)	150	891	33	34	793	50	74	258	37	67	150	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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			0.95			0.57	0.95	0.98		0.93	0.97	
Frt			0.850			0.850		0.981			0.954	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1557	1845	1341	1588	1827	1316	1573	1709	0	1557	1724	0
Flt Permitted	0.073			0.095			0.406			0.251		
Satd. Flow (perm)	120	1845	1274	159	1827	752	637	1709	0	383	1724	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			71			109		7			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		330			281			268			187	
Travel Time (s)		7.5			6.4			6.1			4.3	
Confl. Peds. (#/hr)	150		11	11		150	33		61	61		33
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
Heavy Vehicles (%)	2%	3%	6%	0%	4%	8%	1%	7%	3%	2%	1%	3%
Parking (#/hr)	4		4	4		4	4		4	4		4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	169	1001	37	38	891	56	83	332	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)	5.0	5.0	5.0	3.5	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	24.0	24.0	7.0	24.0	24.0	24.0	24.0		24.0	24.0	
Total Split (s)	12.0	63.0	63.0	7.0	58.0	58.0	30.0	30.0		30.0	30.0	
Total Split (%)	12.0%	63.0%	63.0%	7.0%	58.0%	58.0%	30.0%	30.0%		30.0%	30.0%	
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)	1.0	-2.0	0.0	1.0	-2.0	0.0	-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)	4.5	4.0	6.0	4.5	4.0	6.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	67.6	63.9	61.9	58.1	55.2	53.2	23.9	23.9		23.9	23.9	
Actuated g/C Ratio	0.68	0.64	0.62	0.58	0.55	0.53	0.24	0.24		0.24	0.24	
v/c Ratio	0.84	0.85	0.05	0.27	0.88	0.12	0.55	0.80		0.82	0.57	
Control Delay	46.9	15.0	0.1	11.6	32.5	0.8	47.2	50.3		93.5	35.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	46.9	15.0	0.1	11.6	32.5	0.8	47.2	50.3		93.5	35.6	
LOS	D	B	A	B	C	A	D	D		F	D	
Approach Delay		19.0			29.9			49.7			49.2	

Lanes, Volumes, Timings

26: East Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	B			C			D			D		
Queue Length 50th (ft)	57	613	0	8	484	0	45	190		44	121	
Queue Length 95th (ft)	m61	m602	m0	18	#751	2	96	#295		#123	196	
Internal Link Dist (ft)	250			201			188			107		
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	201	1178	815	140	1009	451	165	449		99	464	
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	0.84	0.85	0.05	0.27	0.88	0.12	0.50	0.74		0.76	0.53	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 41 (41%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 30.3

Intersection LOS: C

Intersection Capacity Utilization 84.5%

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: 26: East Avenue & Madison Street

											
Ø1	Ø2 (R)		Ø5	Ø6 (R)		Ø4			Ø8		
7 s	63 s		12 s	58 s		30 s			30 s		

HCM 6th AWSC
18: Euclid Avenue & Adams Street

01/17/2020

Intersection

Intersection Delay, s/veh 7.2
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	4	19	16	7	41	2	6	14	1	2	17	2
Future Vol, veh/h	4	19	16	7	41	2	6	14	1	2	17	2
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	32	6	0	15	0	17	14	0	0	0	0
Mvmt Flow	4	20	17	8	44	2	6	15	1	2	18	2
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7	7.3	7.6	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	29%	10%	14%	10%
Vol Thru, %	67%	49%	82%	81%
Vol Right, %	5%	41%	4%	10%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	21	39	50	21
LT Vol	6	4	7	2
Through Vol	14	19	41	17
RT Vol	1	16	2	2
Lane Flow Rate	23	42	54	23
Geometry Grp	1	1	1	1
Degree of Util (X)	0.028	0.044	0.06	0.025
Departure Headway (Hd)	4.401	3.793	4.014	4.045
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	811	941	891	881
Service Time	2.442	1.829	2.045	2.088
HCM Lane V/C Ratio	0.028	0.045	0.061	0.026
HCM Control Delay	7.6	7	7.3	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2	0.1

HCM 6th TWSC
6: Euclid Avenue & Madison Street

01/17/2020

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1091	10	11	944	0	19
Future Vol, veh/h	1091	10	11	944	0	19
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	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	3	0	0	4	0	0
Mvmt Flow	1102	10	11	954	0	19

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1112
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	635
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	635
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	20.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	258	-	-	635	-
HCM Lane V/C Ratio	0.074	-	-	0.017	-
HCM Control Delay (s)	20.1	-	-	10.8	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

HCM 6th TWSC
8: Madison Street & Euclid Avenue

01/17/2020

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	1092	939	17	4	16
Future Vol, veh/h	18	1092	939	17	4	16
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	99	99	99	99	99	99
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	18	1103	948	17	4	16

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	973	0	0 2104 965
Stage 1	-	-	- - 965 -
Stage 2	-	-	- - 1139 -
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	717	-	- - 57 312
Stage 1	-	-	- - 373 -
Stage 2	-	-	- - 308 -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	712	-	- - 55 310
Mov Cap-2 Maneuver	-	-	- - 176 -
Stage 1	-	-	- - 361 -
Stage 2	-	-	- - 306 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	19.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	712	-	-	-	269
HCM Lane V/C Ratio	0.026	-	-	-	0.075
HCM Control Delay (s)	10.2	-	-	-	19.5
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

HCM 6th TWSC
10: Wesley Avenue & Madison Street

01/17/2020

Intersection

Int Delay, s/veh 0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1088	8	23	948	8	12
Future Vol, veh/h	1088	8	23	948	8	12
Conflicting Peds, #/hr	0	8	8	0	1	5
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	98	98	98	98	98	98
Heavy Vehicles, %	3	0	0	3	25	25
Mvmt Flow	1110	8	23	967	8	12

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1126
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	628
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	623
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	26.5
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	188	-	-	623	-
HCM Lane V/C Ratio	0.109	-	-	0.038	-
HCM Control Delay (s)	26.5	-	-	11	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-

HCM 6th TWSC
12: Oak Park Avenue & E-W Alley

01/17/2020

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	5	0	9	0	0	8	1	618	0	0	557	10
Future Vol, veh/h	5	0	9	0	0	8	1	618	0	0	557	10
Conflicting Peds, #/hr	0	0	0	0	0	0	17	0	6	6	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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	5	10
Mvmt Flow	5	0	10	0	0	9	1	665	0	0	599	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1294	1295	622	1283	1300	671	627	0	0	671	0	0
Stage 1	622	622	-	673	673	-	-	-	-	-	-	-
Stage 2	672	673	-	610	627	-	-	-	-	-	-	-
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	141	164	490	143	163	460	965	-	-	929	-	-
Stage 1	478	482	-	448	457	-	-	-	-	-	-	-
Stage 2	449	457	-	485	479	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	136	160	482	139	159	457	949	-	-	924	-	-
Mov Cap-2 Maneuver	136	160	-	139	159	-	-	-	-	-	-	-
Stage 1	469	474	-	444	453	-	-	-	-	-	-	-
Stage 2	440	453	-	475	471	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	20.1	13	0	0
HCM LOS	C	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	949	-	-	253 457	924	-	-
HCM Lane V/C Ratio	0.001	-	-	0.06 0.019	-	-	-
HCM Control Delay (s)	8.8	0	-	20.1 13	0	-	-
HCM Lane LOS	A	A	-	C B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2 0.1	0	-	-

HCM 6th TWSC
14: Wesley Avenue & E-W Alley

01/17/2020

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	12	2	1	0	0	1	1	16	1	1	25	12
Future Vol, veh/h	12	2	1	0	0	1	1	16	1	1	25	12
Conflicting Peds, #/hr	1	0	2	2	0	1	0	0	4	4	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	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	8	0
Mvmt Flow	14	2	1	0	0	1	1	18	1	1	29	14

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	60	63	38	67	70	24	43	0	0	23	0	0
Stage 1	38	38	-	25	25	-	-	-	-	-	-	-
Stage 2	22	25	-	42	45	-	-	-	-	-	-	-
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	941	832	1040	931	824	1058	1579	-	-	1605	-	-
Stage 1	982	867	-	998	878	-	-	-	-	-	-	-
Stage 2	1002	878	-	978	861	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	937	827	1038	922	819	1053	1579	-	-	1599	-	-
Mov Cap-2 Maneuver	937	827	-	922	819	-	-	-	-	-	-	-
Stage 1	981	866	-	993	874	-	-	-	-	-	-	-
Stage 2	999	874	-	971	860	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9	8.4	0.4	0.2
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1579	-	-	927 1053	1599	-	-
HCM Lane V/C Ratio	0.001	-	-	0.019 0.001	0.001	-	-
HCM Control Delay (s)	7.3	0	-	9 8.4	7.3	0	-
HCM Lane LOS	A	A	-	A A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0	0	-	-

HCM 6th TWSC
17: Oak Park Avenue & Adams Street

01/17/2020

Intersection												
Int Delay, s/veh	1.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	6	13	5	19	28	11	590	11	12	545	8
Future Vol, veh/h	1	6	13	5	19	28	11	590	11	12	545	8
Conflicting Peds, #/hr	2	0	5	5	0	2	6	0	20	20	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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	7	14	5	21	30	12	641	12	13	592	9
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	1328	1326	608	1329	1324	669	607	0	0	673	0	0
Stage 1	629	629	-	691	691	-	-	-	-	-	-	-
Stage 2	699	697	-	638	633	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	132	156	496	132	156	458	971	-	-	918	-	-
Stage 1	470	475	-	435	446	-	-	-	-	-	-	-
Stage 2	430	443	-	465	473	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	105	146	491	117	146	448	965	-	-	901	-	-
Mov Cap-2 Maneuver	105	146	-	117	146	-	-	-	-	-	-	-
Stage 1	458	462	-	418	429	-	-	-	-	-	-	-
Stage 2	373	426	-	433	460	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	20.2		26.8			0.2			0.2			
HCM LOS	C		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	965	-	-	259	221	901	-	-				
HCM Lane V/C Ratio	0.012	-	-	0.084	0.256	0.014	-	-				
HCM Control Delay (s)	8.8	0	-	20.2	26.8	9.1	0	-				
HCM Lane LOS	A	A	-	C	D	A	A	-				
HCM 95th %tile O(veh)	0	-	-	0.3	1	0	-	-				

HCM 6th TWSC
19: Wesley Avenue & Adams Street

01/17/2020

Intersection												
Int Delay, s/veh	6.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	22	1	2	43	5	2	10	1	1	16	7
Future Vol, veh/h	3	22	1	2	43	5	2	10	1	1	16	7
Conflicting Peds, #/hr	3	0	13	13	0	3	1	0	3	3	0	1
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	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	23	0	0	12	40	0	10	0	0	0	14
Mvmt Flow	4	27	1	2	53	6	2	12	1	1	20	9
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	77	48	39	74	52	19	30	0	0	16	0	0
Stage 1	28	28	-	20	20	-	-	-	-	-	-	-
Stage 2	49	20	-	54	32	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.73	6.2	7.1	6.62	6.6	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.207	3.3	3.5	4.108	3.66	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	917	804	1038	921	820	959	1596	-	-	1615	-	-
Stage 1	994	832	-	1004	859	-	-	-	-	-	-	-
Stage 2	969	839	-	963	849	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	861	799	1024	881	815	954	1594	-	-	1610	-	-
Mov Cap-2 Maneuver	861	799	-	881	815	-	-	-	-	-	-	-
Stage 1	992	830	-	1000	856	-	-	-	-	-	-	-
Stage 2	900	836	-	918	847	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9.6		9.7			1.1			0.3			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1594	-	-	813	830	1610	-	-				
HCM Lane V/C Ratio	0.002	-	-	0.039	0.074	0.001	-	-				
HCM Control Delay (s)	7.3	0	-	9.6	9.7	7.2	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile O(veh)	0	-	-	0.1	0.2	0	-	-				

HCM 6th TWSC
22: Madison Street & Wesley Avenue (North Leg)

01/17/2020

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	43	1057	927	17	7	44
Future Vol, veh/h	43	1057	927	17	7	44
Conflicting Peds, #/hr	0	0	0	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	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	44	1079	946	17	7	45

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	963	0	0 2122 955
Stage 1	-	-	- 955 -
Stage 2	-	-	- 1167 -
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	723	-	- 56 316
Stage 1	-	-	- 377 -
Stage 2	-	-	- 299 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	723	-	- 53 316
Mov Cap-2 Maneuver	-	-	- 172 -
Stage 1	-	-	- 354 -
Stage 2	-	-	- 299 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	20.6
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	723	-	-	-	283
HCM Lane V/C Ratio	0.061	-	-	-	0.184
HCM Control Delay (s)	10.3	-	-	-	20.6
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7

HCM 6th TWSC
24: Clarence Avenue & Madison Street

01/17/2020

Intersection

Int Delay, s/veh 0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1056	8	6	928	16	18
Future Vol, veh/h	1056	8	6	928	16	18
Conflicting Peds, #/hr	0	0	0	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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	1112	8	6	977	17	19

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1120
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	631
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	631
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	25.3
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	213	-	-	631	-
HCM Lane V/C Ratio	0.168	-	-	0.01	-
HCM Control Delay (s)	25.3	-	-	10.8	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	0.6	-	-	0	-

Lanes, Volumes, Timings

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	117	743	91	91	740	155	111	449	63	142	525	91
Future Volume (vph)	117	743	91	91	740	155	111	449	63	142	525	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	11	11	10	10	12	10	10	12
Storage Length (ft)	85		50	70		100	95		0	100		0
Storage Lanes	1		1	1		1	1		0	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			0.92			0.95	0.97	0.99		0.97	0.98	
Frt			0.850			0.850		0.982			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1685	1756	1407	1685	1783	1349	1685	3215	0	1668	3178	0
Flt Permitted	0.107			0.140			0.218			0.307		
Satd. Flow (perm)	190	1756	1301	248	1783	1285	376	3215	0	525	3178	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		532			329			187			195	
Travel Time (s)		12.1			7.5			4.3			4.4	
Confl. Peds. (#/hr)	21		19	19		21	35		25	25		35
Confl. Bikes (#/hr)			5			3			2			3
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
Heavy Vehicles (%)	0%	1%	1%	0%	3%	1%	0%	2%	0%	1%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	3
Parking (#/hr)			4			4			4			4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	121	766	94	94	763	160	114	528	0	146	635	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)	5.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	24.0	24.0	7.0	24.0	24.0	8.0	24.0		8.0	24.0	
Total Split (s)	8.0	53.0	53.0	7.0	52.0	52.0	8.0	32.0		8.0	32.0	
Total Split (%)	8.0%	53.0%	53.0%	7.0%	52.0%	52.0%	8.0%	32.0%		8.0%	32.0%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	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	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	57.3	49.8	49.8	54.9	47.0	47.0	32.1	24.1		32.1	24.1	
Actuated g/C Ratio	0.57	0.50	0.50	0.55	0.47	0.47	0.32	0.24		0.32	0.24	
v/c Ratio	0.61	0.88	0.15	0.46	0.91	0.26	0.61	0.68		0.65	0.83	
Control Delay	25.8	36.9	15.7	17.5	41.9	18.0	38.3	39.2		38.9	46.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	

Lanes, Volumes, Timings

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	25.8	36.9	15.7	17.5	41.9	18.0	38.3	39.2		38.9	46.1	
LOS	C	D	B	B	D	B	D	D		D	D	
Approach Delay	33.5			35.9			39.0			44.7		
Approach LOS	C			D			D			D		
Queue Length 50th (ft)	33	444	33	26	445	61	48	156		63	197	
Queue Length 95th (ft)	#80	#697	64	49	#696	107	#91	214		#113	264	
Internal Link Dist (ft)	452			249			107			115		
Turn Bay Length (ft)	85		50	70		100	95			100		
Base Capacity (vph)	197	874	647	206	838	604	186	835		225	826	
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	0.61	0.88	0.15	0.46	0.91	0.26	0.61	0.63		0.65	0.77	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 37.8

Intersection LOS: D

Intersection Capacity Utilization 86.1%

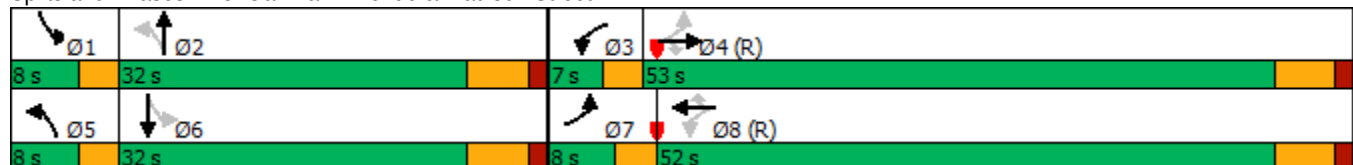
ICU Level of Service E

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Oak Park Avenue & Madison Street



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

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	801	59	47	853	54	49	202	45	42	288	87
Future Volume (vph)	74	801	59	47	853	54	49	202	45	42	288	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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			0.95			0.90	0.99	0.99		0.98	0.99	
Frt			0.850			0.850		0.973			0.965	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1573	1881	1421	1588	1863	1421	1588	1799	0	1557	1785	0
Flt Permitted	0.116			0.172			0.183			0.406		
Satd. Flow (perm)	192	1881	1353	288	1863	1286	302	1799	0	650	1785	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			79			79		12			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		329			270			190			227	
Travel Time (s)		7.5			6.1			4.3			5.2	
Confl. Peds. (#/hr)	30		11	11		30	14		16	16		14
Confl. Bikes (#/hr)			2			3						5
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
Heavy Vehicles (%)	1%	1%	0%	0%	2%	0%	0%	2%	0%	2%	1%	2%
Parking (#/hr)	4		4	4		4	4		4	4		4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	817	60	48	870	55	50	252	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)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	24.0	24.0	9.5	24.0	24.0	24.0	24.0		24.0	24.0	
Total Split (s)	9.5	54.5	54.5	9.5	54.5	54.5	26.0	26.0		26.0	26.0	
Total Split (%)	10.6%	60.6%	60.6%	10.6%	60.6%	60.6%	28.9%	28.9%		28.9%	28.9%	
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)	1.0	-2.0	0.0	1.0	-2.0	0.0	-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)	4.5	4.0	6.0	4.5	4.0	6.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	57.0	54.5	52.5	56.0	52.5	50.5	21.8	21.8		21.8	21.8	
Actuated g/C Ratio	0.63	0.61	0.58	0.62	0.58	0.56	0.24	0.24		0.24	0.24	
v/c Ratio	0.38	0.72	0.07	0.19	0.80	0.07	0.69	0.57		0.27	0.86	
Control Delay	11.5	18.2	1.8	7.4	23.0	1.5	78.5	34.1		33.0	51.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	11.5	18.2	1.8	7.4	23.0	1.5	78.5	34.1		33.0	51.8	
LOS	B	B	A	A	C	A	E	C		C	D	

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

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		16.7			21.0			41.4			49.9	
Approach LOS		B			C			D			D	
Queue Length 50th (ft)	14	336	0	8	380	0	26	120		20	201	
Queue Length 95th (ft)	28	501	12	20	#590	10	#90	197		51	#358	
Internal Link Dist (ft)		249			190			110			147	
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	199	1138	821	251	1095	762	74	455		161	455	
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	0.38	0.72	0.07	0.19	0.79	0.07	0.68	0.55		0.27	0.84	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 77 (86%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 26.4

Intersection LOS: C

Intersection Capacity Utilization 87.8%

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.

Splits and Phases: 26: East Avenue & Madison Street

			
Ø1	Ø2 (R)		Ø4
9.5 s	54.5 s		26 s
			
Ø5	Ø6 (R)		Ø8
9.5 s	54.5 s		26 s

HCM 6th AWSC
18: Euclid Avenue & Adams Street

01/17/2020

Intersection

Intersection Delay, s/veh 7.4
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	5	20	8	7	44	5	13	18	3	5	13	6
Future Vol, veh/h	5	20	8	7	44	5	13	18	3	5	13	6
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	32	6	0	15	0	17	14	0	0	0	0
Mvmt Flow	6	23	9	8	50	6	15	20	3	6	15	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.2	7.4	7.7	7.2
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	38%	15%	12%	21%
Vol Thru, %	53%	61%	79%	54%
Vol Right, %	9%	24%	9%	25%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	34	33	56	24
LT Vol	13	5	7	5
Through Vol	18	20	44	13
RT Vol	3	8	5	6
Lane Flow Rate	39	38	64	27
Geometry Grp	1	1	1	1
Degree of Util (X)	0.047	0.041	0.071	0.03
Departure Headway (Hd)	4.409	3.947	4.013	3.996
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	808	902	888	889
Service Time	2.457	1.996	2.057	2.05
HCM Lane V/C Ratio	0.048	0.042	0.072	0.03
HCM Control Delay	7.7	7.2	7.4	7.2
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2	0.1

HCM 6th TWSC
6: Euclid Avenue & Madison Street

01/17/2020

Intersection

Int Delay, s/veh 0.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	939	9	16	986	1	28
Future Vol, veh/h	939	9	16	986	1	28
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	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	978	9	17	1027	1	29

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	987
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	708
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	708
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	18.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	298	-	-	708	-
HCM Lane V/C Ratio	0.101	-	-	0.024	-
HCM Control Delay (s)	18.4	-	-	10.2	0
HCM Lane LOS	C	-	-	B	A
HCM 95th %tile Q(veh)	0.3	-	-	0.1	-

HCM 6th TWSC
8: Madison Street & Euclid Avenue

01/17/2020

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	950	976	15	6	26
Future Vol, veh/h	17	950	976	15	6	26
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	96	96	96	96	96	96
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	18	990	1017	16	6	27

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1041	0	0 2059 1033
Stage 1	-	-	- 1033 -
Stage 2	-	-	- 1026 -
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	676	-	- 61 285
Stage 1	-	-	- 346 -
Stage 2	-	-	- 349 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	671	-	- 58 283
Mov Cap-2 Maneuver	-	-	- 182 -
Stage 1	-	-	- 334 -
Stage 2	-	-	- 346 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	21.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	671	-	-	-	256
HCM Lane V/C Ratio	0.026	-	-	-	0.13
HCM Control Delay (s)	10.5	-	-	-	21.2
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

HCM 6th TWSC
10: Wesley Avenue & Madison Street

01/17/2020

Intersection

Int Delay, s/veh 0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	944	12	31	987	4	12
Future Vol, veh/h	944	12	31	987	4	12
Conflicting Peds, #/hr	0	5	5	0	0	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	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	3	0	0
Mvmt Flow	994	13	33	1039	4	13

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1012
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	693
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	690
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	20.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	250	-	-	690	-
HCM Lane V/C Ratio	0.067	-	-	0.047	-
HCM Control Delay (s)	20.4	-	-	10.5	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-

HCM 6th TWSC
12: Oak Park Avenue & E-W Alley

01/17/2020

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	14	1	21	0	0	1	17	608	0	0	685	22
Future Vol, veh/h	14	1	21	0	0	1	17	608	0	0	685	22
Conflicting Peds, #/hr	0	0	0	0	0	0	16	0	16	16	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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	1	10
Mvmt Flow	15	1	22	0	0	1	18	647	0	0	729	23
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1441	1456	757	1451	1467	663	768	0	0	663	0	0
Stage 1	757	757	-	699	699	-	-	-	-	-	-	-
Stage 2	684	699	-	752	768	-	-	-	-	-	-	-
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	111	131	411	110	129	465	855	-	-	935	-	-
Stage 1	403	419	-	434	445	-	-	-	-	-	-	-
Stage 2	442	445	-	405	414	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	106	123	405	99	121	458	842	-	-	921	-	-
Mov Cap-2 Maneuver	106	123	-	99	121	-	-	-	-	-	-	-
Stage 1	384	413	-	413	424	-	-	-	-	-	-	-
Stage 2	426	424	-	382	408	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	29.1		12.9		0.3		0					
HCM LOS	D		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	842	-	-	187	458	921	-	-				
HCM Lane V/C Ratio	0.021	-	-	0.205	0.002	-	-	-				
HCM Control Delay (s)	9.4	0	-	29.1	12.9	0	-	-				
HCM Lane LOS	A	A	-	D	B	A	-	-				
HCM 95th %tile O(veh)	0.1	-	-	0.7	0	0	-	-				

HCM 6th TWSC
14: Wesley Avenue & E-W Alley

01/17/2020

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	0	0	1	3	0	0	2	11	1	0	38	2
Future Vol, veh/h	0	0	1	3	0	0	2	11	1	0	38	2
Conflicting Peds, #/hr	0	0	2	2	0	0	3	0	6	6	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	6	0	0	8	0
Mvmt Flow	0	0	1	3	0	0	2	12	1	0	40	2
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	61	67	46	67	68	19	45	0	0	19	0	0
Stage 1	44	44	-	23	23	-	-	-	-	-	-	-
Stage 2	17	23	-	44	45	-	-	-	-	-	-	-
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	939	828	1029	931	826	1065	1576	-	-	1611	-	-
Stage 1	975	862	-	1000	880	-	-	-	-	-	-	-
Stage 2	1008	880	-	975	861	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	935	820	1024	923	818	1059	1571	-	-	1602	-	-
Mov Cap-2 Maneuver	935	820	-	923	818	-	-	-	-	-	-	-
Stage 1	971	859	-	993	874	-	-	-	-	-	-	-
Stage 2	1007	874	-	972	858	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	8.5		8.9		1		0					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1571	-	-	1024	923	1602	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.001	0.003	-	-	-				
HCM Control Delay (s)	7.3	0	-	8.5	8.9	0	-	-				
HCM Lane LOS	A	A	-	A	A	A	-	-				
HCM 95th %tile O(veh)	0	-	-	0	0	0	-	-				

HCM 6th TWSC
17: Oak Park Avenue & Adams Street

01/17/2020

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	1	6	28	8	15	39	14	585	10	13	677	16
Future Vol, veh/h	1	6	28	8	15	39	14	585	10	13	677	16
Conflicting Peds, #/hr	5	0	4	4	0	5	10	0	7	7	0	10
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	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	17	0	0	7	0	7	2	0	0	2	0
Mvmt Flow	1	6	29	8	15	40	14	597	10	13	691	16
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1398	1377	713	1384	1380	614	717	0	0	614	0	0
Stage 1	735	735	-	637	637	-	-	-	-	-	-	-
Stage 2	663	642	-	747	743	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.67	6.2	7.1	6.57	6.2	4.17	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.67	-	6.1	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.67	-	6.1	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.153	3.3	3.5	4.063	3.3	2.263	-	-	2.2	-	-
Pot Cap-1 Maneuver	119	135	435	122	141	496	861	-	-	975	-	-
Stage 1	414	404	-	469	464	-	-	-	-	-	-	-
Stage 2	454	446	-	408	415	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	95	126	429	105	132	490	853	-	-	969	-	-
Mov Cap-2 Maneuver	95	126	-	105	132	-	-	-	-	-	-	-
Stage 1	400	391	-	454	449	-	-	-	-	-	-	-
Stage 2	391	432	-	365	402	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	19.5		26.5		0.2		0.2					
HCM LOS	C		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	853	-	-	284	230	969	-					
HCM Lane V/C Ratio	0.017	-	-	0.126	0.275	0.014	-					
HCM Control Delay (s)	9.3	0	-	19.5	26.5	8.8	0					
HCM Lane LOS	A	A	-	C	D	A	A					
HCM 95th %tile Q(veh)	0.1	-	-	0.4	1.1	0	-					

HCM 6th TWSC
19: Wesley Avenue & Adams Street

01/17/2020

Intersection												
Int Delay, s/veh	6.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	22	3	1	40	4	4	9	4	11	26	10
Future Vol, veh/h	5	22	3	1	40	4	4	9	4	11	26	10
Conflicting Peds, #/hr	0	0	7	7	0	0	2	0	2	2	0	2
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	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	23	0	0	12	40	0	10	0	0	0	14
Mvmt Flow	6	28	4	1	51	5	5	11	5	14	33	13

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	122	98	49	117	102	16	48	0	0	18	0	0
Stage 1	70	70	-	26	26	-	-	-	-	-	-	-
Stage 2	52	28	-	91	76	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.73	6.2	7.1	6.62	6.6	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.207	3.3	3.5	4.108	3.66	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	858	754	1025	864	770	963	1572	-	-	1612	-	-
Stage 1	945	797	-	997	854	-	-	-	-	-	-	-
Stage 2	966	832	-	921	813	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	801	742	1016	822	758	961	1569	-	-	1609	-	-
Mov Cap-2 Maneuver	801	742	-	822	758	-	-	-	-	-	-	-
Stage 1	940	788	-	992	850	-	-	-	-	-	-	-
Stage 2	901	828	-	871	804	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.9		10		1.7		1.7	
HCM LOS	A		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1569	-	-	772 774	1609	-	-
HCM Lane V/C Ratio	0.003	-	-	0.049 0.074	0.009	-	-
HCM Control Delay (s)	7.3	0	-	9.9 10	7.3	0	-
HCM Lane LOS	A	A	-	A B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.2 0.2	0	-	-

HCM 6th TWSC
22: Madison Street & Wesley Avenue (North Leg)

01/17/2020

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	933	973	12	8	45
Future Vol, veh/h	23	933	973	12	8	45
Conflicting Peds, #/hr	0	0	0	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	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	3	0	0	0
Mvmt Flow	24	982	1024	13	8	47

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1037	0	0 2061 1031
Stage 1	-	-	- 1031 -
Stage 2	-	-	- 1030 -
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	678	-	- 61 286
Stage 1	-	-	- 347 -
Stage 2	-	-	- 347 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	678	-	- 59 286
Mov Cap-2 Maneuver	-	-	- 182 -
Stage 1	-	-	- 335 -
Stage 2	-	-	- 347 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	22.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	678	-	-	-	263
HCM Lane V/C Ratio	0.036	-	-	-	0.212
HCM Control Delay (s)	10.5	-	-	-	22.3
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

HCM 6th TWSC
24: Clarence Avenue & Madison Street

01/17/2020

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	925	16	9	980	5	9
Future Vol, veh/h	925	16	9	980	5	9
Conflicting Peds, #/hr	0	0	0	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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	3	0	0
Mvmt Flow	974	17	9	1032	5	9

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	991
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	706
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	706
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	20.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	250	-	-	706	-
HCM Lane V/C Ratio	0.059	-	-	0.013	-
HCM Control Delay (s)	20.3	-	-	10.2	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Lanes, Volumes, Timings

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	956	47	102	728	127	123	447	65	141	431	96
Future Volume (vph)	100	956	47	102	728	127	123	447	65	141	431	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	11	11	10	10	12	10	10	12
Storage Length (ft)	85		50	70		100	95		0	100		0
Storage Lanes	1		1	1		1	1		0	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			0.95			0.97	0.98	0.99		0.98	0.99	
Frt			0.850			0.850		0.981			0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1636	1722	1380	1652	1766	1336	1668	3165	0	1652	3169	0
Flt Permitted	0.089			0.089			0.229			0.243		
Satd. Flow (perm)	153	1722	1315	155	1766	1296	394	3165	0	415	3169	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		532			329			187			195	
Travel Time (s)		12.1			7.5			4.3			4.4	
Confl. Peds. (#/hr)	11		10	10		11	21		19	19		21
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Heavy Vehicles (%)	3%	3%	3%	2%	4%	2%	1%	4%	0%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	0
Parking (#/hr)			4			4			4			4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	106	1017	50	109	774	135	131	545	0	150	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)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	24.0	24.0	8.0	24.0	24.0	9.0	24.0		9.0	24.0	
Total Split (s)	8.0	50.0	50.0	8.0	50.0	50.0	9.0	33.0		9.0	33.0	
Total Split (%)	8.0%	50.0%	50.0%	8.0%	50.0%	50.0%	9.0%	33.0%		9.0%	33.0%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	1.0	-2.0	0.0	1.0	-2.0	0.0	1.0	-2.0		1.0	-2.0	
Total Lost Time (s)	4.0	4.0	6.0	4.0	4.0	6.0	4.0	4.0		4.0	4.0	
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	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	53.8	48.0	46.0	53.9	48.0	46.0	30.2	25.2		30.2	25.2	
Actuated g/C Ratio	0.54	0.48	0.46	0.54	0.48	0.46	0.30	0.25		0.30	0.25	
v/c Ratio	0.63	1.23	0.08	0.64	0.91	0.23	0.72	0.68		0.81	0.70	
Control Delay	32.2	141.5	16.8	27.1	35.0	12.1	47.7	38.2		57.5	38.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	32.2	141.5	16.8	27.1	35.0	12.1	47.7	38.2		57.5	38.8	

Lanes, Volumes, Timings

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	C	F	B	C	D	B	D	D		E	D	
Approach Delay		126.3			31.1			40.1			42.8	
Approach LOS		F			C			D			D	
Queue Length 50th (ft)	29	~828	18	20	493	48	59	164		68	170	
Queue Length 95th (ft)	#94	#1071	41	m#42	m#658	m63	#115	212		#142	220	
Internal Link Dist (ft)		452			249			107			115	
Turn Bay Length (ft)	85		50	70		100	95			100		
Base Capacity (vph)	168	826	604	171	848	596	182	917		186	919	
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	0.63	1.23	0.08	0.64	0.91	0.23	0.72	0.59		0.81	0.61	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 100

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.23

Intersection Signal Delay: 66.3

Intersection LOS: E

Intersection Capacity Utilization 91.9%

ICU Level of Service F

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

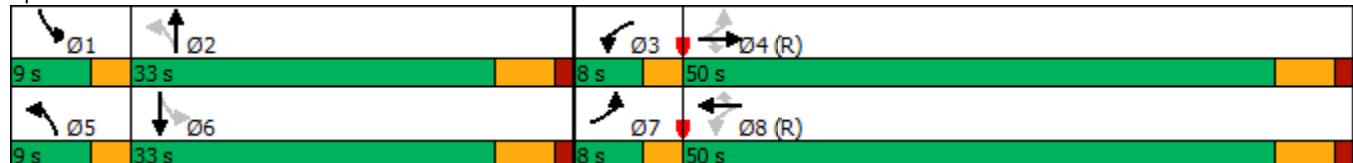
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Oak Park Avenue & Madison Street



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

01/23/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	950	33	37	795	50	74	258	44	67	150	67
Future Volume (vph)	150	950	33	37	795	50	74	258	44	67	150	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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			0.95			0.57	0.95	0.97		0.93	0.97	
Frt			0.850			0.850		0.978			0.954	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1557	1845	1341	1588	1827	1316	1573	1699	0	1557	1724	0
Flt Permitted	0.071			0.077			0.408			0.242		
Satd. Flow (perm)	116	1845	1274	129	1827	752	641	1699	0	370	1724	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			71			109		8			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		330			281			268			187	
Travel Time (s)		7.5			6.4			6.1			4.3	
Confl. Peds. (#/hr)	150		11	11		150	33		61	61		33
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
Heavy Vehicles (%)	2%	3%	6%	0%	4%	8%	1%	7%	3%	2%	1%	3%
Parking (#/hr)	4		4	4		4	4		4	4		4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	169	1067	37	42	893	56	83	339	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)	5.0	5.0	5.0	3.5	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	24.0	24.0	7.0	24.0	24.0	24.0	24.0		24.0	24.0	
Total Split (s)	12.0	63.0	63.0	7.0	58.0	58.0	30.0	30.0		30.0	30.0	
Total Split (%)	12.0%	63.0%	63.0%	7.0%	58.0%	58.0%	30.0%	30.0%		30.0%	30.0%	
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)	1.0	-2.0	0.0	1.0	-2.0	0.0	-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)	4.5	4.0	6.0	4.5	4.0	6.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	67.4	63.7	61.7	58.0	55.2	53.2	24.1	24.1		24.1	24.1	
Actuated g/C Ratio	0.67	0.64	0.62	0.58	0.55	0.53	0.24	0.24		0.24	0.24	
v/c Ratio	0.86	0.91	0.05	0.34	0.89	0.12	0.54	0.82		0.84	0.56	
Control Delay	45.4	16.9	0.1	14.6	32.8	0.8	46.5	51.4		98.6	35.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	45.4	16.9	0.1	14.6	32.8	0.8	46.5	51.4		98.6	35.4	
LOS	D	B	A	B	C	A	D	D		F	D	
Approach Delay		20.2			30.2			50.5			50.2	

Lanes, Volumes, Timings

26: East Avenue & Madison Street

01/23/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			C			D			D		
Queue Length 50th (ft)	59	700	0	9	485	0	45	195		45	121	
Queue Length 95th (ft)	m59	m618	m0	20	#752	2	96	#317		#125	196	
Internal Link Dist (ft)	250			201			188			107		
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	196	1174	812	123	1007	450	166	447		96	464	
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	0.86	0.91	0.05	0.34	0.89	0.12	0.50	0.76		0.78	0.53	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 41 (41%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.91

Intersection Signal Delay: 31.0

Intersection LOS: C

Intersection Capacity Utilization 88.2%

ICU Level of Service E

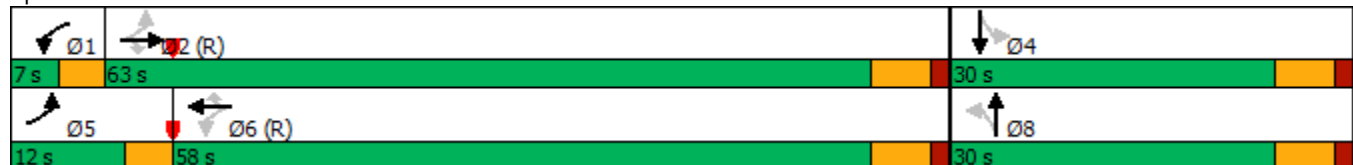
Analysis Period (min) 15

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: 26: East Avenue & Madison Street



HCM 6th AWSC
18: Euclid Avenue & Adams Street

01/23/2020

Intersection

Intersection Delay, s/veh 7.2
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	22	22	13	41	1	10	1	8	0	0	1
Future Vol, veh/h	1	22	22	13	41	1	10	1	8	0	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	32	6	0	15	0	17	14	0	0	0	0
Mvmt Flow	1	24	24	14	44	1	11	1	9	0	0	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.9	7.3	7.4	6.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	53%	2%	24%	0%
Vol Thru, %	5%	49%	75%	0%
Vol Right, %	42%	49%	2%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	19	45	55	1
LT Vol	10	1	13	0
Through Vol	1	22	41	0
RT Vol	8	22	1	1
Lane Flow Rate	20	48	59	1
Geometry Grp	1	1	1	1
Degree of Util (X)	0.024	0.05	0.066	0.001
Departure Headway (Hd)	4.229	3.693	4.01	3.501
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	844	970	895	1016
Service Time	2.268	1.715	2.028	1.545
HCM Lane V/C Ratio	0.024	0.049	0.066	0.001
HCM Control Delay	7.4	6.9	7.3	6.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.2	0

HCM 6th TWSC
6: Access Drive & Madison Street

01/17/2020

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1151	11	4	945	12	4
Future Vol, veh/h	1151	11	4	945	12	4
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	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	3	0	0	4	0	0
Mvmt Flow	1163	11	4	955	12	4

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1174
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	602
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	602
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0	26.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	187	-	-	602	-
HCM Lane V/C Ratio	0.086	-	-	0.007	-
HCM Control Delay (s)	26.1	-	-	11	0
HCM Lane LOS	D	-	-	B	A
HCM 95th %tile Q(veh)	0.3	-	-	0	-

HCM 6th TWSC
8: Madison Street & Euclid Avenue

01/17/2020

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	1137	933	17	4	16
Future Vol, veh/h	18	1137	933	17	4	16
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	99	99	99	99	99	99
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	18	1148	942	17	4	16

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	967	0	0 2143 959
Stage 1	-	-	- - 959 -
Stage 2	-	-	- - 1184 -
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	720	-	- - 54 314
Stage 1	-	-	- - 375 -
Stage 2	-	-	- - 293 -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	715	-	- - 52 312
Mov Cap-2 Maneuver	-	-	- - 171 -
Stage 1	-	-	- - 363 -
Stage 2	-	-	- - 291 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	19.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	715	-	-	-	268
HCM Lane V/C Ratio	0.025	-	-	-	0.075
HCM Control Delay (s)	10.2	-	-	-	19.5
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

HCM 6th TWSC
10: Wesley Avenue & Madison Street

01/23/2020

Intersection

Int Delay, s/veh 0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1132	9	29	942	8	23
Future Vol, veh/h	1132	9	29	942	8	23
Conflicting Peds, #/hr	0	8	8	0	1	5
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	98	98	98	98	98	98
Heavy Vehicles, %	3	0	0	3	25	25
Mvmt Flow	1155	9	30	961	8	23

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1172
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	603
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	598
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	28.1
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	187	-	-	598	-
HCM Lane V/C Ratio	0.169	-	-	0.049	-
HCM Control Delay (s)	28.1	-	-	11.3	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	0.6	-	-	0.2	-

HCM 6th TWSC
12: Oak Park Avenue & E-W Alley

01/17/2020

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	5	0	9	1	0	8	1	622	4	1	570	10
Future Vol, veh/h	5	0	9	1	0	8	1	622	4	1	570	10
Conflicting Peds, #/hr	0	0	0	0	0	0	17	0	6	6	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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	5	10
Mvmt Flow	5	0	10	1	0	9	1	669	4	1	613	11
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1316	1319	636	1305	1322	677	641	0	0	679	0	0
Stage 1	638	638	-	679	679	-	-	-	-	-	-	-
Stage 2	678	681	-	626	643	-	-	-	-	-	-	-
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	136	158	481	138	158	456	953	-	-	923	-	-
Stage 1	468	474	-	445	454	-	-	-	-	-	-	-
Stage 2	445	453	-	475	472	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	131	154	473	134	154	453	938	-	-	918	-	-
Mov Cap-2 Maneuver	131	154	-	134	154	-	-	-	-	-	-	-
Stage 1	460	465	-	441	450	-	-	-	-	-	-	-
Stage 2	436	449	-	464	464	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	20.7		15.3		0		0					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	938	-	-	245	358	918	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.061	0.027	0.001	-	-				
HCM Control Delay (s)	8.8	0	-	20.7	15.3	8.9	0	-				
HCM Lane LOS	A	A	-	C	C	A	A	-				
HCM 95th %tile O(veh)	0	-	-	0.2	0.1	0	-	-				

HCM 6th TWSC
14: Wesley Avenue & E-W Alley

01/23/2020

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	5	2	2	0	0	1	1	23	1	1	29	3
Future Vol, veh/h	5	2	2	0	0	1	1	23	1	1	29	3
Conflicting Peds, #/hr	1	0	2	2	0	1	0	0	4	4	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	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	8	0
Mvmt Flow	6	2	2	0	0	1	1	26	1	1	33	3
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	67	70	37	74	71	32	36	0	0	31	0	0
Stage 1	37	37	-	33	33	-	-	-	-	-	-	-
Stage 2	30	33	-	41	38	-	-	-	-	-	-	-
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	931	824	1041	921	823	1048	1588	-	-	1595	-	-
Stage 1	984	868	-	988	872	-	-	-	-	-	-	-
Stage 2	992	872	-	979	867	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	927	819	1039	910	818	1043	1588	-	-	1589	-	-
Mov Cap-2 Maneuver	927	819	-	910	818	-	-	-	-	-	-	-
Stage 1	983	867	-	983	868	-	-	-	-	-	-	-
Stage 2	989	868	-	971	866	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.9		8.5			0.3			0.2			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1588	-	-	922 1043	1589	-	-					
HCM Lane V/C Ratio	0.001	-	-	0.011 0.001	0.001	-	-					
HCM Control Delay (s)	7.3	0	-	8.9 8.5	7.3	0	-					
HCM Lane LOS	A	A	-	A A	A	A	-					
HCM 95th %tile O(veh)	0	-	-	0 0	0	-	-					

HCM 6th TWSC
17: Oak Park Avenue & Adams Street

01/17/2020

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	1	6	13	5	19	32	11	594	11	18	553	8
Future Vol, veh/h	1	6	13	5	19	32	11	594	11	18	553	8
Conflicting Peds, #/hr	2	0	5	5	0	2	6	0	20	20	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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	7	14	5	21	35	12	646	12	20	601	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1358	1354	617	1357	1352	674	616	0	0	678	0	0
Stage 1	652	652	-	696	696	-	-	-	-	-	-	-
Stage 2	706	702	-	661	656	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	126	150	490	126	150	455	964	-	-	914	-	-
Stage 1	457	464	-	432	443	-	-	-	-	-	-	-
Stage 2	427	440	-	452	462	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	98	138	485	111	138	445	958	-	-	897	-	-
Mov Cap-2 Maneuver	98	138	-	111	138	-	-	-	-	-	-	-
Stage 1	445	445	-	415	426	-	-	-	-	-	-	-
Stage 2	366	423	-	416	444	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	20.9		27.5		0.2		0.3	
HCM LOS	C		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	958	-	-	248	220	897	-
HCM Lane V/C Ratio	0.012	-	-	0.088	0.277	0.022	-
HCM Control Delay (s)	8.8	0	-	20.9	27.5	9.1	0
HCM Lane LOS	A	A	-	C	D	A	A
HCM 95th %tile Q(veh)	0	-	-	0.3	1.1	0.1	-

HCM 6th TWSC
19: Wesley Avenue & Adams Street

01/23/2020

Intersection												
Int Delay, s/veh	6.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	26	1	2	45	6	2	10	1	1	17	10
Future Vol, veh/h	9	26	1	2	45	6	2	10	1	1	17	10
Conflicting Peds, #/hr	3	0	13	13	0	3	1	0	3	3	0	1
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	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	23	0	0	12	40	0	10	0	0	0	14
Mvmt Flow	11	32	1	2	56	7	2	12	1	1	21	12
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	81	50	41	79	56	19	34	0	0	16	0	0
Stage 1	30	30	-	20	20	-	-	-	-	-	-	-
Stage 2	51	20	-	59	36	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.73	6.2	7.1	6.62	6.6	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.207	3.3	3.5	4.108	3.66	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	912	802	1036	914	816	959	1591	-	-	1615	-	-
Stage 1	992	830	-	1004	859	-	-	-	-	-	-	-
Stage 2	967	839	-	958	846	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	853	797	1022	870	811	954	1589	-	-	1610	-	-
Mov Cap-2 Maneuver	853	797	-	870	811	-	-	-	-	-	-	-
Stage 1	990	828	-	1000	856	-	-	-	-	-	-	-
Stage 2	894	836	-	907	844	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	9.7		9.7		1.1		0.3					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1589	-	-	815	827	1610	-	-				
HCM Lane V/C Ratio	0.002	-	-	0.055	0.079	0.001	-	-				
HCM Control Delay (s)	7.3	0	-	9.7	9.7	7.2	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile O(veh)	0	-	-	0.2	0.3	0	-	-				

HCM 6th TWSC
22: Madison Street & Wesley Avenue (North Leg)

01/23/2020

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	43	1112	927	17	7	44
Future Vol, veh/h	43	1112	927	17	7	44
Conflicting Peds, #/hr	0	0	0	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	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	44	1135	946	17	7	45

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	963	0	0 2178 955
Stage 1	-	-	- 955 -
Stage 2	-	-	- 1223 -
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	723	-	- 52 316
Stage 1	-	-	- 377 -
Stage 2	-	-	- 281 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	723	-	- 49 316
Mov Cap-2 Maneuver	-	-	- 165 -
Stage 1	-	-	- 354 -
Stage 2	-	-	- 281 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	20.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	723	-	-	-	281
HCM Lane V/C Ratio	0.061	-	-	-	0.185
HCM Control Delay (s)	10.3	-	-	-	20.7
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.7

HCM 6th TWSC
24: Clarence Avenue & Madison Street

01/23/2020

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1111	8	8	928	16	22
Future Vol, veh/h	1111	8	8	928	16	22
Conflicting Peds, #/hr	0	0	0	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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	1169	8	8	977	17	23

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1177
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	601
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	601
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	27
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	203	-	-	601	-
HCM Lane V/C Ratio	0.197	-	-	0.014	-
HCM Control Delay (s)	27	-	-	11.1	-
HCM Lane LOS	D	-	-	B	-
HCM 95th %tile Q(veh)	0.7	-	-	0	-

HCM 6th TWSC
30: Wesley Avenue & Outbound Drive

01/17/2020

Intersection						
Int Delay, s/veh	0.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	0	0	35	39	0
Future Vol, veh/h	1	0	0	35	39	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	0	0	38	42	0
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	80	42	-	0	-	0
Stage 1	42	-	-	-	-	-
Stage 2	38	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	922	1029	0	-	-	0
Stage 1	980	-	0	-	-	0
Stage 2	984	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	922	1029	-	-	-	-
Mov Cap-2 Maneuver	922	-	-	-	-	-
Stage 1	980	-	-	-	-	-
Stage 2	984	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	8.9	0		0		
HCM LOS	A					
Minor Lane/Major Mvmt	NBT EBLn1		SBT			
Capacity (veh/h)	- 922		-			
HCM Lane V/C Ratio	- 0.001		-			
HCM Control Delay (s)	- 8.9		-			
HCM Lane LOS	- A		-			
HCM 95th %tile O(veh)	- 0		-			

Lanes, Volumes, Timings

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	117	740	100	96	752	159	112	449	67	145	525	91
Future Volume (vph)	117	740	100	96	752	159	112	449	67	145	525	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	11	11	10	10	12	10	10	12
Storage Length (ft)	85		50	70		100	95		0	100		0
Storage Lanes	1		1	1		1	1		0	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			0.92			0.95	0.97	0.99		0.97	0.98	
Frt			0.850			0.850		0.981			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1685	1756	1407	1685	1783	1349	1685	3211	0	1668	3178	0
Flt Permitted	0.098			0.143			0.218			0.304		
Satd. Flow (perm)	174	1756	1301	254	1783	1285	376	3211	0	520	3178	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		532			329			187			195	
Travel Time (s)		12.1			7.5			4.3			4.4	
Confl. Peds. (#/hr)	21		19	19		21	35		25	25		35
Confl. Bikes (#/hr)			5			3			2			3
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
Heavy Vehicles (%)	0%	1%	1%	0%	3%	1%	0%	2%	0%	1%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	3
Parking (#/hr)			4			4			4			4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	121	763	103	99	775	164	115	532	0	149	635	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)	5.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	24.0	24.0	7.0	24.0	24.0	8.0	24.0		8.0	24.0	
Total Split (s)	8.0	53.0	53.0	7.0	52.0	52.0	8.0	32.0		8.0	32.0	
Total Split (%)	8.0%	53.0%	53.0%	7.0%	52.0%	52.0%	8.0%	32.0%		8.0%	32.0%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	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	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	57.3	49.8	49.8	54.9	47.0	47.0	32.1	24.1		32.1	24.1	
Actuated g/C Ratio	0.57	0.50	0.50	0.55	0.47	0.47	0.32	0.24		0.32	0.24	
v/c Ratio	0.64	0.87	0.16	0.47	0.93	0.27	0.62	0.69		0.67	0.83	
Control Delay	28.6	36.6	15.8	18.1	44.1	18.1	38.7	39.4		40.2	46.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	

Lanes, Volumes, Timings

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	28.6	36.6	15.8	18.1	44.1	18.1	38.7	39.4		40.2	46.1	
LOS	C	D	B	B	D	B	D	D		D	D	
Approach Delay		33.4			37.5			39.2				
Approach LOS		C			D			D				
Queue Length 50th (ft)	33	441	37	27	458	63	49	158		65	197	
Queue Length 95th (ft)	#85	#693	69	51	#714	109	#94	216		#118	264	
Internal Link Dist (ft)		452			249			107				
Turn Bay Length (ft)	85		50	70		100	95			100		
Base Capacity (vph)	189	874	647	209	837	604	186	834		224	826	
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	0.64	0.87	0.16	0.47	0.93	0.27	0.62	0.64		0.67	0.77	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 38.4

Intersection LOS: D

Intersection Capacity Utilization 86.8%

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.

Splits and Phases: 3: Oak Park Avenue & Madison Street

								
Ø1	Ø2		Ø3	Ø4 (R)		Ø5	Ø6	Ø7 (R)
8 s	32 s		7 s	53 s		8 s	32 s	52 s

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

01/23/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	796	59	52	859	54	49	202	54	42	288	87
Future Volume (vph)	74	796	59	52	859	54	49	202	54	42	288	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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			0.95			0.90	0.99	0.99		0.98	0.99	
Frt			0.850			0.850		0.968			0.965	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1573	1881	1421	1588	1863	1421	1588	1788	0	1557	1785	0
Flt Permitted	0.111			0.175			0.183			0.390		
Satd. Flow (perm)	184	1881	1353	293	1863	1286	302	1788	0	625	1785	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			79			79		14			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		329			270			190			227	
Travel Time (s)		7.5			6.1			4.3			5.2	
Confl. Peds. (#/hr)	30		11	11		30	14		16	16		14
Confl. Bikes (#/hr)			2			3						5
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
Heavy Vehicles (%)	1%	1%	0%	0%	2%	0%	0%	2%	0%	2%	1%	2%
Parking (#/hr)	4		4	4		4	4		4	4		4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	812	60	53	877	55	50	261	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)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	24.0	24.0	9.5	24.0	24.0	24.0	24.0		24.0	24.0	
Total Split (s)	9.5	54.5	54.5	9.5	54.5	54.5	26.0	26.0		26.0	26.0	
Total Split (%)	10.6%	60.6%	60.6%	10.6%	60.6%	60.6%	28.9%	28.9%		28.9%	28.9%	
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)	1.0	-2.0	0.0	1.0	-2.0	0.0	-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)	4.5	4.0	6.0	4.5	4.0	6.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	57.0	54.5	52.5	56.0	52.5	50.5	21.8	21.8		21.8	21.8	
Actuated g/C Ratio	0.63	0.61	0.58	0.62	0.58	0.56	0.24	0.24		0.24	0.24	
v/c Ratio	0.39	0.71	0.07	0.21	0.81	0.07	0.69	0.59		0.28	0.86	
Control Delay	11.9	18.1	1.8	7.5	23.3	1.5	78.5	34.5		33.5	51.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	11.9	18.1	1.8	7.5	23.3	1.5	78.5	34.5		33.5	51.8	
LOS	B	B	A	A	C	A	E	C		C	D	

Lanes, Volumes, Timings

26: East Avenue & Madison Street

01/23/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		16.5			21.3			41.6			50.0	
Approach LOS		B			C			D			D	
Queue Length 50th (ft)	14	333	0	9	386	0	26	124		20	201	
Queue Length 95th (ft)	28	494	12	21	#611	10	#90	204		51	#358	
Internal Link Dist (ft)		249			190			110			147	
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	194	1138	821	254	1095	762	74	454		155	455	
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	0.39	0.71	0.07	0.21	0.80	0.07	0.68	0.57		0.28	0.84	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 77 (86%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 26.5

Intersection LOS: C

Intersection Capacity Utilization 88.1%

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.

Splits and Phases: 26: East Avenue & Madison Street

								
Ø1	Ø2 (R)					Ø4		
9.5 s	54.5 s					26 s		
								
Ø5	Ø6 (R)					Ø8		
9.5 s	54.5 s					26 s		

HCM 6th AWSC
18: Euclid Avenue & Adams Street

01/23/2020

Intersection

Intersection Delay, s/veh 7.3
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	22	13	14	44	1	14	1	13	1	1	1
Future Vol, veh/h	1	22	13	14	44	1	14	1	13	1	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	32	6	0	15	0	17	14	0	0	0	0
Mvmt Flow	1	25	15	16	50	1	16	1	15	1	1	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7	7.4	7.4	7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	50%	3%	24%	33%
Vol Thru, %	4%	61%	75%	33%
Vol Right, %	46%	36%	2%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	36	59	3
LT Vol	14	1	14	1
Through Vol	1	22	44	1
RT Vol	13	13	1	1
Lane Flow Rate	32	41	67	3
Geometry Grp	1	1	1	1
Degree of Util (X)	0.037	0.043	0.075	0.004
Departure Headway (Hd)	4.2	3.8	4.028	3.978
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	849	940	889	894
Service Time	2.243	1.833	2.054	2.028
HCM Lane V/C Ratio	0.038	0.044	0.075	0.003
HCM Control Delay	7.4	7	7.4	7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2	0

HCM 6th TWSC
6: Access DRIve & Madison Street

01/17/2020

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	940	12	5	993	14	6
Future Vol, veh/h	940	12	5	993	14	6
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	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	979	13	5	1034	15	6
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	992	0	2030	986
Stage 1	-	-	-	-	986	-
Stage 2	-	-	-	-	1044	-
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	-	-	705	-	64	303
Stage 1	-	-	-	-	364	-
Stage 2	-	-	-	-	342	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	705	-	63	303
Mov Cap-2 Maneuver	-	-	-	-	188	-
Stage 1	-	-	-	-	364	-
Stage 2	-	-	-	-	336	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		23.8	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	212	-	-	705	-	
HCM Lane V/C Ratio	0.098	-	-	0.007	-	
HCM Control Delay (s)	23.8	-	-	10.1	0	
HCM Lane LOS	C	-	-	B	A	
HCM 95th %tile O(veh)	0.3	-	-	0	-	

HCM 6th TWSC
8: Madison Street & Euclid Avenue

01/17/2020

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	929	972	15	6	26
Future Vol, veh/h	17	929	972	15	6	26
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	96	96	96	96	96	96
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	18	968	1013	16	6	27

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1037	0	0 2033 1029
Stage 1	-	-	- - 1029 -
Stage 2	-	-	- - 1004 -
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	678	-	- - 64 286
Stage 1	-	-	- - 348 -
Stage 2	-	-	- - 357 -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	673	-	- - 61 284
Mov Cap-2 Maneuver	-	-	- - 185 -
Stage 1	-	-	- - 336 -
Stage 2	-	-	- - 354 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	21
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	673	-	-	-	258
HCM Lane V/C Ratio	0.026	-	-	-	0.129
HCM Control Delay (s)	10.5	-	-	-	21
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.4

HCM 6th TWSC
10: Wesley Avenue & Madison Street

01/23/2020

Intersection

Int Delay, s/veh 0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	922	13	42	979	8	27
Future Vol, veh/h	922	13	42	979	8	27
Conflicting Peds, #/hr	0	5	5	0	0	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	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	3	0	0
Mvmt Flow	971	14	44	1031	8	28

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	990
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	706
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	703
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	21.3
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	258	-	-	703	-
HCM Lane V/C Ratio	0.143	-	-	0.063	-
HCM Control Delay (s)	21.3	-	-	10.5	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.5	-	-	0.2	-

HCM 6th TWSC
12: Oak Park Avenue & E-W Alley

01/17/2020

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	14	1	21	2	0	2	17	613	0	2	697	22
Future Vol, veh/h	14	1	21	2	0	2	17	613	0	2	697	22
Conflicting Peds, #/hr	0	0	0	0	0	0	16	0	16	16	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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	1	10
Mvmt Flow	15	1	22	2	0	2	18	652	0	2	741	23
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1462	1477	769	1472	1488	668	780	0	0	668	0	0
Stage 1	773	773	-	704	704	-	-	-	-	-	-	-
Stage 2	689	704	-	768	784	-	-	-	-	-	-	-
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	108	127	404	106	125	462	846	-	-	931	-	-
Stage 1	395	412	-	431	443	-	-	-	-	-	-	-
Stage 2	439	443	-	397	407	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	103	118	398	95	117	455	833	-	-	917	-	-
Mov Cap-2 Maneuver	103	118	-	95	117	-	-	-	-	-	-	-
Stage 1	376	404	-	410	422	-	-	-	-	-	-	-
Stage 2	422	422	-	372	399	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	29.8		28.6		0.3		0					
HCM LOS	D		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	833	-	-	183	157	917	-	-				
HCM Lane V/C Ratio	0.022	-	-	0.209	0.027	0.002	-	-				
HCM Control Delay (s)	9.4	0	-	29.8	28.6	8.9	0	-				
HCM Lane LOS	A	A	-	D	D	A	A	-				
HCM 95th %tile O(veh)	0.1	-	-	0.8	0.1	0	-	-				

HCM 6th TWSC
14: Wesley Avenue & E-W Alley

01/23/2020

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	1	0	2	3	0	0	3	26	1	0	44	6
Future Vol, veh/h	1	0	2	3	0	0	3	26	1	0	44	6
Conflicting Peds, #/hr	0	0	2	2	0	0	3	0	6	6	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	6	0	0	8	0
Mvmt Flow	1	0	2	3	0	0	3	27	1	0	46	6
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	86	92	54	92	95	34	55	0	0	34	0	0
Stage 1	52	52	-	40	40	-	-	-	-	-	-	-
Stage 2	34	40	-	52	55	-	-	-	-	-	-	-
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	905	802	1019	897	799	1045	1563	-	-	1591	-	-
Stage 1	966	856	-	980	866	-	-	-	-	-	-	-
Stage 2	987	866	-	966	853	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	901	793	1014	887	790	1039	1559	-	-	1582	-	-
Mov Cap-2 Maneuver	901	793	-	887	790	-	-	-	-	-	-	-
Stage 1	961	853	-	972	859	-	-	-	-	-	-	-
Stage 2	985	859	-	962	850	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.7		9.1			0.7			0			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1559	-	-	973	887	1582	-	-				
HCM Lane V/C Ratio	0.002	-	-	0.003	0.004	-	-	-				
HCM Control Delay (s)	7.3	0	-	8.7	9.1	0	-	-				
HCM Lane LOS	A	A	-	A	A	A	-	-				
HCM 95th %tile O(veh)	0	-	-	0	0	0	-	-				

HCM 6th TWSC
17: Oak Park Avenue & Adams Street

01/17/2020

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	1	6	28	8	15	40	14	589	10	18	686	16
Future Vol, veh/h	1	6	28	8	15	40	14	589	10	18	686	16
Conflicting Peds, #/hr	5	0	4	4	0	5	10	0	7	7	0	10
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	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	17	0	0	7	0	7	2	0	0	2	0
Mvmt Flow	1	6	29	8	15	41	14	601	10	18	700	16
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1421	1400	722	1407	1403	618	726	0	0	618	0	0
Stage 1	754	754	-	641	641	-	-	-	-	-	-	-
Stage 2	667	646	-	766	762	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.67	6.2	7.1	6.57	6.2	4.17	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.67	-	6.1	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.67	-	6.1	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.153	3.3	3.5	4.063	3.3	2.263	-	-	2.2	-	-
Pot Cap-1 Maneuver	115	131	430	118	136	493	855	-	-	972	-	-
Stage 1	404	396	-	466	462	-	-	-	-	-	-	-
Stage 2	451	445	-	398	406	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	90	122	424	100	126	487	847	-	-	966	-	-
Mov Cap-2 Maneuver	90	122	-	100	126	-	-	-	-	-	-	-
Stage 1	390	380	-	451	447	-	-	-	-	-	-	-
Stage 2	387	431	-	353	389	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	19.9		27.4		0.2		0.2					
HCM LOS	C		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	847	-	-	277	224	966	-	-				
HCM Lane V/C Ratio	0.017	-	-	0.129	0.287	0.019	-	-				
HCM Control Delay (s)	9.3	0	-	19.9	27.4	8.8	0	-				
HCM Lane LOS	A	A	-	C	D	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.4	1.1	0.1	-	-				

HCM 6th TWSC
19: Wesley Avenue & Adams Street

01/23/2020

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	26	3	1	40	9	4	10	4	11	29	13
Future Vol, veh/h	15	26	3	1	40	9	4	10	4	11	29	13
Conflicting Peds, #/hr	0	0	7	7	0	0	2	0	2	2	0	2
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	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	23	0	0	12	40	0	10	0	0	0	14
Mvmt Flow	19	33	4	1	51	11	5	13	5	14	37	16
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	132	105	54	127	111	18	55	0	0	20	0	0
Stage 1	75	75	-	28	28	-	-	-	-	-	-	-
Stage 2	57	30	-	99	83	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.73	6.2	7.1	6.62	6.6	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.207	3.3	3.5	4.108	3.66	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	845	747	1019	851	761	960	1563	-	-	1609	-	-
Stage 1	939	793	-	994	852	-	-	-	-	-	-	-
Stage 2	960	830	-	912	807	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	783	735	1010	804	749	958	1560	-	-	1606	-	-
Mov Cap-2 Maneuver	783	735	-	804	749	-	-	-	-	-	-	-
Stage 1	934	784	-	989	848	-	-	-	-	-	-	-
Stage 2	889	826	-	857	798	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	10.1		10		1.6		1.5					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR				
Capacity (veh/h)	1560	-	-	765	781	1606	-	-				
HCM Lane V/C Ratio	0.003	-	-	0.073	0.081	0.009	-	-				
HCM Control Delay (s)	7.3	0	-	10.1	10	7.3	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile O(veh)	0	-	-	0.2	0.3	0	-	-				

HCM 6th TWSC
22: Madison Street & Wesley Avenue (North Leg)

01/23/2020

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	926	976	12	8	45
Future Vol, veh/h	23	926	976	12	8	45
Conflicting Peds, #/hr	0	0	0	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	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	3	0	0	0
Mvmt Flow	24	975	1027	13	8	47

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1040	0	0 2057 1034
Stage 1	-	-	- 1034 -
Stage 2	-	-	- 1023 -
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	676	-	- 61 285
Stage 1	-	-	- 346 -
Stage 2	-	-	- 350 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	676	-	- 59 285
Mov Cap-2 Maneuver	-	-	- 183 -
Stage 1	-	-	- 334 -
Stage 2	-	-	- 350 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	22.3
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	676	-	-	-	263
HCM Lane V/C Ratio	0.036	-	-	-	0.212
HCM Control Delay (s)	10.5	-	-	-	22.3
HCM Lane LOS	B	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.8

HCM 6th TWSC
24: Clarence Avenue & Madison Street

01/23/2020

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	918	16	12	983	5	14
Future Vol, veh/h	918	16	12	983	5	14
Conflicting Peds, #/hr	0	0	0	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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	3	0	0
Mvmt Flow	966	17	13	1035	5	15
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	983	0	2036	975
Stage 1	-	-	-	-	975	-
Stage 2	-	-	-	-	1061	-
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	-	-	711	-	63	308
Stage 1	-	-	-	-	369	-
Stage 2	-	-	-	-	336	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	711	-	62	308
Mov Cap-2 Maneuver	-	-	-	-	187	-
Stage 1	-	-	-	-	369	-
Stage 2	-	-	-	-	330	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		19.8	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	263	-	-	711	-	
HCM Lane V/C Ratio	0.076	-	-	0.018	-	
HCM Control Delay (s)	19.8	-	-	10.2	-	
HCM Lane LOS	C	-	-	B	-	
HCM 95th %tile Q(veh)	0.2	-	-	0.1	-	

HCM 6th TWSC
30: Wesley Avenue & Outbound Drive

01/17/2020

Intersection						
Int Delay, s/veh	0.5					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	2	0	37	55	0
Future Vol, veh/h	3	2	0	37	55	0
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	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	2	0	40	60	0
Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	100	60	-	0	-	0
Stage 1	60	-	-	-	-	-
Stage 2	40	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	899	1005	0	-	-	0
Stage 1	963	-	0	-	-	0
Stage 2	982	-	0	-	-	0
Platoon blocked, %				-	-	
Mov Cap-1 Maneuver	899	1005	-	-	-	-
Mov Cap-2 Maneuver	899	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	982	-	-	-	-	-
Approach	EB	NB	SB			
HCM Control Delay, s	8.9	0	0			
HCM LOS	A					
Minor Lane/Major Mvmt	NBT	EBLn1	SBT			
Capacity (veh/h)	-	939	-			
HCM Lane V/C Ratio	-	0.006	-			
HCM Control Delay (s)	-	8.9	-			
HCM Lane LOS	-	A	-			
HCM 95th %tile Q(veh)	-	0	-			

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

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	956	47	102	728	127	123	447	65	141	431	96
Future Volume (vph)	100	956	47	102	728	127	123	447	65	141	431	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	11	11	10	10	12	10	10	12
Storage Length (ft)	85		50	70		100	95		0	100		0
Storage Lanes	1		1	1		1	1		0	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			0.95			0.97	0.98	0.99		0.98	0.99	
Frt			0.850			0.850		0.981			0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1636	1722	1380	1652	1766	1336	1668	3165	0	1652	3169	0
Flt Permitted	0.212			0.088			0.229			0.243		
Satd. Flow (perm)	365	1722	1315	153	1766	1296	394	3165	0	415	3169	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		532			329			187			195	
Travel Time (s)		12.1			7.5			4.3			4.4	
Confl. Peds. (#/hr)	11		10	10		11	21		19	19		21
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	80%	100%	100%	80%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	4%	2%	1%	4%	0%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	0
Parking (#/hr)			4			4			4			4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	106	814	50	109	620	135	131	545	0	150	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)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	24.0	24.0	8.0	24.0	24.0	9.0	24.0		9.0	24.0	
Total Split (s)	8.0	50.0	50.0	8.0	50.0	50.0	9.0	33.0		9.0	33.0	
Total Split (%)	8.0%	50.0%	50.0%	8.0%	50.0%	50.0%	9.0%	33.0%		9.0%	33.0%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	1.0	-2.0	0.0	1.0	-2.0	0.0	1.0	-2.0		1.0	-2.0	
Total Lost Time (s)	4.0	4.0	6.0	4.0	4.0	6.0	4.0	4.0		4.0	4.0	
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	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	53.4	48.0	46.0	54.3	48.4	46.4	30.2	25.2		30.2	25.2	
Actuated g/C Ratio	0.53	0.48	0.46	0.54	0.48	0.46	0.30	0.25		0.30	0.25	
v/c Ratio	0.40	0.99	0.08	0.64	0.73	0.22	0.72	0.68		0.81	0.70	
Control Delay	16.0	55.9	16.8	30.4	27.0	16.0	47.7	38.2		57.5	38.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	16.0	55.9	16.8	30.4	27.0	16.0	47.7	38.2		57.5	38.8	
LOS	B	E	B	C	C	B	D	D		E	D	
Approach Delay	49.5			25.7			40.1			42.8		
Approach LOS	D			C			D			D		
Queue Length 50th (ft)	29	~558	18	28	353	61	59	164		68	170	
Queue Length 95th (ft)	59	#787	41	m#69	484	m83	#115	212		#142	220	
Internal Link Dist (ft)	452			249			107			115		
Turn Bay Length (ft)	85		50	70		100	95			100		
Base Capacity (vph)	264	826	604	171	854	601	182	917		186	919	
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	0.40	0.99	0.08	0.64	0.73	0.22	0.72	0.59		0.81	0.61	

Intersection Summary

Area Type:	Other
------------	-------

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.99

Intersection Signal Delay: 39.7

Intersection LOS: D

Intersection Capacity Utilization 81.9%

ICU Level of Service D

Analysis Period (min) 15

- ~ Volume exceeds capacity, queue is theoretically infinite.

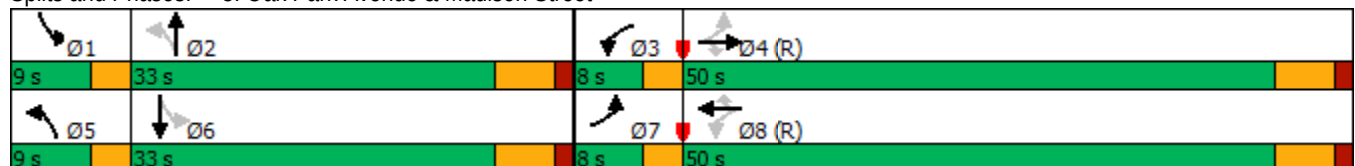
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Oak Park Avenue & Madison Street



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

01/23/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	950	33	37	795	50	74	258	44	67	150	67
Future Volume (vph)	150	950	33	37	795	50	74	258	44	67	150	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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			0.95			0.57	0.95	0.97		0.93	0.97	
Frt			0.850			0.850		0.978			0.954	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1557	1845	1341	1588	1827	1316	1573	1699	0	1557	1724	0
Flt Permitted	0.190			0.182			0.411			0.246		
Satd. Flow (perm)	311	1845	1274	304	1827	752	645	1699	0	376	1724	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			71			109		8			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		330			281			268			187	
Travel Time (s)		7.5			6.4			6.1			4.3	
Confl. Peds. (#/hr)	150		11	11		150	33		61	61		33
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%	80%	100%	100%	80%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	3%	6%	0%	4%	8%	1%	7%	3%	2%	1%	3%
Parking (#/hr)	4		4	4		4	4		4	4		4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	169	854	37	42	715	56	83	339	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)	5.0	5.0	5.0	3.5	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	24.0	24.0	7.0	24.0	24.0	24.0	24.0		24.0	24.0	
Total Split (s)	12.0	63.0	63.0	7.0	58.0	58.0	30.0	30.0		30.0	30.0	
Total Split (%)	12.0%	63.0%	63.0%	7.0%	58.0%	58.0%	30.0%	30.0%		30.0%	30.0%	
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)	1.0	-2.0	0.0	1.0	-2.0	0.0	-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)	4.5	4.0	6.0	4.5	4.0	6.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	67.0	62.9	60.9	59.3	55.8	53.8	24.3	24.3		24.3	24.3	
Actuated g/C Ratio	0.67	0.63	0.61	0.59	0.56	0.54	0.24	0.24		0.24	0.24	
v/c Ratio	0.56	0.74	0.05	0.18	0.70	0.12	0.53	0.81		0.82	0.56	
Control Delay	11.5	13.1	0.2	8.5	21.4	0.8	45.9	50.7		93.5	35.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	11.5	13.1	0.2	8.5	21.4	0.8	45.9	50.7		93.5	35.1	
LOS	B	B	A	A	C	A	D	D		F	D	

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

01/23/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		12.4			19.3			49.8			48.8	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	20	323	0	9	344	0	44	192		44	119	
Queue Length 95th (ft)	m22	m484	m0	20	463	2	96	#317		#124	196	
Internal Link Dist (ft)		250			201			188			107	
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	305	1174	812	231	1028	458	168	450		98	467	
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	0.55	0.73	0.05	0.18	0.70	0.12	0.49	0.75		0.77	0.52	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 41 (41%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 25.0

Intersection LOS: C

Intersection Capacity Utilization 78.2%

ICU Level of Service D

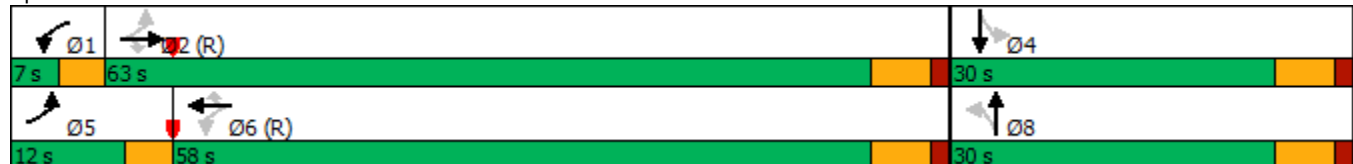
Analysis Period (min) 15

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: 26: East Avenue & Madison Street



HCM 6th AWSC
18: Euclid Avenue & Adams Street

01/23/2020

Intersection

Intersection Delay, s/veh 7.2
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	22	22	13	41	1	10	1	8	0	0	1
Future Vol, veh/h	1	22	22	13	41	1	10	1	8	0	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	32	6	0	15	0	17	14	0	0	0	0
Mvmt Flow	1	24	24	14	44	1	11	1	9	0	0	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	6.9	7.3	7.4	6.5
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	53%	2%	24%	0%
Vol Thru, %	5%	49%	75%	0%
Vol Right, %	42%	49%	2%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	19	45	55	1
LT Vol	10	1	13	0
Through Vol	1	22	41	0
RT Vol	8	22	1	1
Lane Flow Rate	20	48	59	1
Geometry Grp	1	1	1	1
Degree of Util (X)	0.024	0.05	0.066	0.001
Departure Headway (Hd)	4.229	3.693	4.01	3.501
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	844	970	895	1016
Service Time	2.268	1.715	2.028	1.545
HCM Lane V/C Ratio	0.024	0.049	0.066	0.001
HCM Control Delay	7.4	6.9	7.3	6.5
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.2	0

HCM 6th TWSC
6: Access Drive & Madison Street

01/17/2020

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1151	11	4	945	12	4
Future Vol, veh/h	1151	11	4	945	12	4
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	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	3	0	0	4	0	0
Mvmt Flow	930	11	4	764	12	4
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	941	0	1708	936
Stage 1	-	-	-	-	936	-
Stage 2	-	-	-	-	772	-
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	-	-	737	-	101	324
Stage 1	-	-	-	-	385	-
Stage 2	-	-	-	-	459	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	737	-	100	324
Mov Cap-2 Maneuver	-	-	-	-	236	-
Stage 1	-	-	-	-	385	-
Stage 2	-	-	-	-	455	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		20.2	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	253	-	-	737	-	
HCM Lane V/C Ratio	0.064	-	-	0.005	-	
HCM Control Delay (s)	20.2	-	-	9.9	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

HCM 6th TWSC
8: Madison Street & Euclid Avenue

01/17/2020

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	1137	933	17	4	16
Future Vol, veh/h	18	1137	933	17	4	16
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	99	99	99	99	99	99
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	18	919	754	17	4	16

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	779	0	0 1726 771
Stage 1	-	-	- - 771 -
Stage 2	-	-	- - 955 -
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	-	- - 99 403
Stage 1	-	-	- - 460 -
Stage 2	-	-	- - 377 -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	841	-	- - 95 400
Mov Cap-2 Maneuver	-	-	- - 229 -
Stage 1	-	-	- - 447 -
Stage 2	-	-	- - 374 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	16
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	841	-	-	-	348
HCM Lane V/C Ratio	0.022	-	-	-	0.058
HCM Control Delay (s)	9.4	-	-	-	16
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

HCM 6th TWSC
10: Wesley Avenue & Madison Street

01/23/2020

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1132	9	29	942	8	23
Future Vol, veh/h	1132	9	29	942	8	23
Conflicting Peds, #/hr	0	8	8	0	1	5
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	98	98	98	98	98	98
Heavy Vehicles, %	3	0	0	3	25	25
Mvmt Flow	924	9	30	769	8	23
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	941	0	1767	942
Stage 1	-	-	-	-	937	-
Stage 2	-	-	-	-	830	-
Critical Hdwy	-	-	4.1	-	6.65	6.45
Critical Hdwy Stg 1	-	-	-	-	5.65	-
Critical Hdwy Stg 2	-	-	-	-	5.65	-
Follow-up Hdwy	-	-	2.2	-	3.725	3.525
Pot Cap-1 Maneuver	-	-	737	-	80	289
Stage 1	-	-	-	-	347	-
Stage 2	-	-	-	-	391	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	731	-	76	285
Mov Cap-2 Maneuver	-	-	-	-	198	-
Stage 1	-	-	-	-	344	-
Stage 2	-	-	-	-	375	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.4		21	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	256	-	-	731	-	
HCM Lane V/C Ratio	0.124	-	-	0.04	-	
HCM Control Delay (s)	21	-	-	10.1	-	
HCM Lane LOS	C	-	-	B	-	
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-	

HCM 6th TWSC
12: Oak Park Avenue & E-W Alley

01/17/2020

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	5	0	9	1	0	8	1	622	4	1	570	10
Future Vol, veh/h	5	0	9	1	0	8	1	622	4	1	570	10
Conflicting Peds, #/hr	0	0	0	0	0	0	17	0	6	6	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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	5	10
Mvmt Flow	5	0	10	1	0	9	1	669	4	1	613	11
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1316	1319	636	1305	1322	677	641	0	0	679	0	0
Stage 1	638	638	-	679	679	-	-	-	-	-	-	-
Stage 2	678	681	-	626	643	-	-	-	-	-	-	-
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	136	158	481	138	158	456	953	-	-	923	-	-
Stage 1	468	474	-	445	454	-	-	-	-	-	-	-
Stage 2	445	453	-	475	472	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	131	154	473	134	154	453	938	-	-	918	-	-
Mov Cap-2 Maneuver	131	154	-	134	154	-	-	-	-	-	-	-
Stage 1	460	465	-	441	450	-	-	-	-	-	-	-
Stage 2	436	449	-	464	464	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	20.7		15.3		0		0					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	938	-	-	245	358	918	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.061	0.027	0.001	-	-				
HCM Control Delay (s)	8.8	0	-	20.7	15.3	8.9	0	-				
HCM Lane LOS	A	A	-	C	C	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-	-				

HCM 6th TWSC
14: Wesley Avenue & E-W Alley

01/23/2020

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	5	2	2	0	0	1	1	23	1	1	29	3
Future Vol, veh/h	5	2	2	0	0	1	1	23	1	1	29	3
Conflicting Peds, #/hr	1	0	2	2	0	1	0	0	4	4	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	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	8	0
Mvmt Flow	6	2	2	0	0	1	1	26	1	1	33	3
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	67	70	37	74	71	32	36	0	0	31	0	0
Stage 1	37	37	-	33	33	-	-	-	-	-	-	-
Stage 2	30	33	-	41	38	-	-	-	-	-	-	-
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	931	824	1041	921	823	1048	1588	-	-	1595	-	-
Stage 1	984	868	-	988	872	-	-	-	-	-	-	-
Stage 2	992	872	-	979	867	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	927	819	1039	910	818	1043	1588	-	-	1589	-	-
Mov Cap-2 Maneuver	927	819	-	910	818	-	-	-	-	-	-	-
Stage 1	983	867	-	983	868	-	-	-	-	-	-	-
Stage 2	989	868	-	971	866	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.9		8.5			0.3			0.2			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1588	-	-	922 1043	1589	-	-					
HCM Lane V/C Ratio	0.001	-	-	0.011 0.001	0.001	-	-					
HCM Control Delay (s)	7.3	0	-	8.9 8.5	7.3	0	-					
HCM Lane LOS	A	A	-	A A	A	A	-					
HCM 95th %tile O(veh)	0	-	-	0 0	0	-	-					

HCM 6th TWSC
17: Oak Park Avenue & Adams Street

01/17/2020

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	1	6	13	5	19	32	11	594	11	18	553	8
Future Vol, veh/h	1	6	13	5	19	32	11	594	11	18	553	8
Conflicting Peds, #/hr	2	0	5	5	0	2	6	0	20	20	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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	7	14	5	21	35	12	646	12	20	601	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1358	1354	617	1357	1352	674	616	0	0	678	0	0
Stage 1	652	652	-	696	696	-	-	-	-	-	-	-
Stage 2	706	702	-	661	656	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	126	150	490	126	150	455	964	-	-	914	-	-
Stage 1	457	464	-	432	443	-	-	-	-	-	-	-
Stage 2	427	440	-	452	462	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	98	138	485	111	138	445	958	-	-	897	-	-
Mov Cap-2 Maneuver	98	138	-	111	138	-	-	-	-	-	-	-
Stage 1	445	445	-	415	426	-	-	-	-	-	-	-
Stage 2	366	423	-	416	444	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	20.9		27.5		0.2		0.3	
HCM LOS	C		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	958	-	-	248	220	897	-
HCM Lane V/C Ratio	0.012	-	-	0.088	0.277	0.022	-
HCM Control Delay (s)	8.8	0	-	20.9	27.5	9.1	0
HCM Lane LOS	A	A	-	C	D	A	A
HCM 95th %tile Q(veh)	0	-	-	0.3	1.1	0.1	-

HCM 6th TWSC
19: Wesley Avenue & Adams Street

01/23/2020

Intersection												
Int Delay, s/veh	6.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	9	26	1	2	45	6	2	10	1	1	17	10
Future Vol, veh/h	9	26	1	2	45	6	2	10	1	1	17	10
Conflicting Peds, #/hr	3	0	13	13	0	3	1	0	3	3	0	1
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	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	23	0	0	12	40	0	10	0	0	0	14
Mvmt Flow	11	32	1	2	56	7	2	12	1	1	21	12
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	81	50	41	79	56	19	34	0	0	16	0	0
Stage 1	30	30	-	20	20	-	-	-	-	-	-	-
Stage 2	51	20	-	59	36	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.73	6.2	7.1	6.62	6.6	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.207	3.3	3.5	4.108	3.66	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	912	802	1036	914	816	959	1591	-	-	1615	-	-
Stage 1	992	830	-	1004	859	-	-	-	-	-	-	-
Stage 2	967	839	-	958	846	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	853	797	1022	870	811	954	1589	-	-	1610	-	-
Mov Cap-2 Maneuver	853	797	-	870	811	-	-	-	-	-	-	-
Stage 1	990	828	-	1000	856	-	-	-	-	-	-	-
Stage 2	894	836	-	907	844	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	9.7		9.7		1.1		0.3					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1589	-	-	815	827	1610	-	-				
HCM Lane V/C Ratio	0.002	-	-	0.055	0.079	0.001	-	-				
HCM Control Delay (s)	7.3	0	-	9.7	9.7	7.2	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile O(veh)	0	-	-	0.2	0.3	0	-	-				

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	43	1112	927	17	7	44
Future Vol, veh/h	43	1112	927	17	7	44
Conflicting Peds, #/hr	0	0	0	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	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	44	908	757	17	7	45

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	774	0	0 1762 766
Stage 1	-	-	- - 766 -
Stage 2	-	-	- - 996 -
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	851	-	- - 94 406
Stage 1	-	-	- - 462 -
Stage 2	-	-	- - 360 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	851	-	- - 89 406
Mov Cap-2 Maneuver	-	-	- - 220 -
Stage 1	-	-	- - 438 -
Stage 2	-	-	- - 360 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	16.5
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	851	-	-	-	364
HCM Lane V/C Ratio	0.052	-	-	-	0.143
HCM Control Delay (s)	9.5	-	-	-	16.5
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5

HCM 6th TWSC
24: Clarence Avenue & Madison Street

01/23/2020

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1111	8	8	928	16	22
Future Vol, veh/h	1111	8	8	928	16	22
Conflicting Peds, #/hr	0	0	0	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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	936	8	8	781	17	23

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	944
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	735
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	735
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	20.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	276	-	-	735	-
HCM Lane V/C Ratio	0.145	-	-	0.011	-
HCM Control Delay (s)	20.2	-	-	10	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0	-

Lanes, Volumes, Timings

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	117	740	100	96	752	159	112	449	67	145	525	91
Future Volume (vph)	117	740	100	96	752	159	112	449	67	145	525	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	11	11	10	10	12	10	10	12
Storage Length (ft)	85		50	70		100	95		0	100		0
Storage Lanes	1		1	1		1	1		0	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			0.92			0.95	0.97	0.99		0.97	0.98	
Frt			0.850			0.850		0.981			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1685	1756	1407	1685	1783	1349	1685	3211	0	1668	3178	0
Flt Permitted	0.221			0.269			0.218			0.304		
Satd. Flow (perm)	392	1756	1301	477	1783	1285	376	3211	0	520	3178	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		532			329			187			195	
Travel Time (s)		12.1			7.5			4.3			4.4	
Confl. Peds. (#/hr)	21		19	19		21	35		25	25		35
Confl. Bikes (#/hr)			5			3			2			3
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%	80%	100%	100%	80%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	1%	0%	3%	1%	0%	2%	0%	1%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	3
Parking (#/hr)			4			4			4			4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	121	610	103	99	620	164	115	532	0	149	635	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)	5.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	24.0	24.0	7.0	24.0	24.0	8.0	24.0		8.0	24.0	
Total Split (s)	8.0	53.0	53.0	7.0	52.0	52.0	8.0	32.0		8.0	32.0	
Total Split (%)	8.0%	53.0%	53.0%	7.0%	52.0%	52.0%	8.0%	32.0%		8.0%	32.0%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	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	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	57.3	49.8	49.8	55.0	47.1	47.1	32.1	24.1		32.1	24.1	
Actuated g/C Ratio	0.57	0.50	0.50	0.55	0.47	0.47	0.32	0.24		0.32	0.24	
v/c Ratio	0.40	0.70	0.16	0.31	0.74	0.27	0.62	0.69		0.67	0.83	
Control Delay	14.1	25.8	15.8	12.6	28.4	18.0	38.7	39.4		40.2	46.1	

Lanes, Volumes, Timings

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	25.8	15.8	12.6	28.4	18.0	38.7	39.4		40.2	46.1	
LOS	B	C	B	B	C	B	D	D		D	D	
Approach Delay		22.8			24.7			39.2			45.0	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	33	305	37	27	317	63	49	158		65	197	
Queue Length 95th (ft)	61	447	69	51	461	109	#94	216		#118	264	
Internal Link Dist (ft)		452			249			107			115	
Turn Bay Length (ft)	85		50	70		100	95			100		
Base Capacity (vph)	299	874	647	321	840	606	186	834		224	826	
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	0.40	0.70	0.16	0.31	0.74	0.27	0.62	0.64		0.67	0.77	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 32.2

Intersection LOS: C

Intersection Capacity Utilization 78.9%

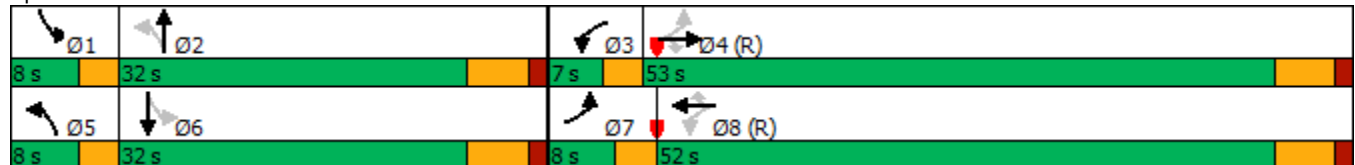
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Oak Park Avenue & Madison Street



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

01/23/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	796	59	52	859	54	49	202	54	42	288	87
Future Volume (vph)	74	796	59	52	859	54	49	202	54	42	288	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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			0.95			0.90	0.99	0.99		0.98	0.99	
Frt			0.850			0.850		0.968			0.965	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1573	1881	1421	1588	1863	1421	1588	1788	0	1557	1785	0
Flt Permitted	0.212			0.274			0.211			0.409		
Satd. Flow (perm)	351	1881	1353	458	1863	1286	348	1788	0	656	1785	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			79			79		14			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		329			270			190			227	
Travel Time (s)		7.5			6.1			4.3			5.2	
Confl. Peds. (#/hr)	30		11	11		30	14		16	16		14
Confl. Bikes (#/hr)			2			3						5
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%	80%	100%	100%	80%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	0%	2%	0%	0%	2%	0%	2%	1%	2%
Parking (#/hr)	4		4	4		4	4		4	4		4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	650	60	53	701	55	50	261	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)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	24.0	24.0	9.5	24.0	24.0	24.0	24.0		24.0	24.0	
Total Split (s)	9.5	54.5	54.5	9.5	54.5	54.5	26.0	26.0		26.0	26.0	
Total Split (%)	10.6%	60.6%	60.6%	10.6%	60.6%	60.6%	28.9%	28.9%		28.9%	28.9%	
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)	1.0	-2.0	0.0	1.0	-2.0	0.0	-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)	4.5	4.0	6.0	4.5	4.0	6.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	55.7	53.0	51.0	54.5	50.9	48.9	23.2	23.2		23.2	23.2	
Actuated g/C Ratio	0.62	0.59	0.57	0.61	0.57	0.54	0.26	0.26		0.26	0.26	
v/c Ratio	0.26	0.59	0.07	0.16	0.67	0.07	0.56	0.55		0.25	0.81	
Control Delay	8.6	15.6	1.9	7.2	18.5	1.5	55.8	32.3		31.1	45.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	8.6	15.6	1.9	7.2	18.5	1.5	55.8	32.3		31.1	45.4	

Lanes, Volumes, Timings

26: East Avenue & Madison Street

01/23/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	A	B	A	A	B	A	E	C		C	D	
Approach Delay		13.9			16.6			36.1			43.9	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	16	269	0	11	308	0	23	114		18	185	
Queue Length 95th (ft)	28	341	12	21	387	10	#83	204		51	#358	
Internal Link Dist (ft)		249			190			110			147	
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	289	1138	821	342	1095	762	92	482		173	482	
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	0.26	0.57	0.07	0.15	0.64	0.07	0.54	0.54		0.25	0.79	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 77 (86%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 23.3

Intersection LOS: C

Intersection Capacity Utilization 79.0%

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.

Splits and Phases: 26: East Avenue & Madison Street

			
Ø1	Ø2 (R)		Ø4
9.5 s	54.5 s		26 s
			
Ø5	Ø6 (R)		Ø8
9.5 s	54.5 s		26 s

HCM 6th AWSC
18: Euclid Avenue & Adams Street

01/23/2020

Intersection

Intersection Delay, s/veh 7.3
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	22	13	14	44	1	14	1	13	1	1	1
Future Vol, veh/h	1	22	13	14	44	1	14	1	13	1	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	32	6	0	15	0	17	14	0	0	0	0
Mvmt Flow	1	25	15	16	50	1	16	1	15	1	1	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7	7.4	7.4	7
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	50%	3%	24%	33%
Vol Thru, %	4%	61%	75%	33%
Vol Right, %	46%	36%	2%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	28	36	59	3
LT Vol	14	1	14	1
Through Vol	1	22	44	1
RT Vol	13	13	1	1
Lane Flow Rate	32	41	67	3
Geometry Grp	1	1	1	1
Degree of Util (X)	0.037	0.043	0.075	0.004
Departure Headway (Hd)	4.2	3.8	4.028	3.978
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	849	940	889	894
Service Time	2.243	1.833	2.054	2.028
HCM Lane V/C Ratio	0.038	0.044	0.075	0.003
HCM Control Delay	7.4	7	7.4	7
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.1	0.2	0

HCM 6th TWSC
6: Access DRIve & Madison Street

01/17/2020

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	940	12	5	993	14	6
Future Vol, veh/h	940	12	5	993	14	6
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	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	783	13	5	828	15	6
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	796	0	1628	790
Stage 1	-	-	-	-	790	-
Stage 2	-	-	-	-	838	-
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	-	-	835	-	113	393
Stage 1	-	-	-	-	451	-
Stage 2	-	-	-	-	428	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	835	-	112	393
Mov Cap-2 Maneuver	-	-	-	-	250	-
Stage 1	-	-	-	-	451	-
Stage 2	-	-	-	-	423	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		18.8	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	281	-	-	835	-	
HCM Lane V/C Ratio	0.074	-	-	0.006	-	
HCM Control Delay (s)	18.8	-	-	9.3	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile O(veh)	0.2	-	-	0	-	

HCM 6th TWSC
8: Madison Street & Euclid Avenue

01/17/2020

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	929	972	15	6	26
Future Vol, veh/h	17	929	972	15	6	26
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	96	96	96	96	96	96
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	18	774	810	16	6	27

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	834	0	0 1636 826
Stage 1	-	-	- - 826 -
Stage 2	-	-	- - 810 -
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	808	-	- - 112 375
Stage 1	-	-	- - 433 -
Stage 2	-	-	- - 441 -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	802	-	- - 108 372
Mov Cap-2 Maneuver	-	-	- - 245 -
Stage 1	-	-	- - 420 -
Stage 2	-	-	- - 437 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	16.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	802	-	-	-	339
HCM Lane V/C Ratio	0.022	-	-	-	0.098
HCM Control Delay (s)	9.6	-	-	-	16.8
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

HCM 6th TWSC
10: Wesley Avenue & Madison Street

01/23/2020

Intersection

Int Delay, s/veh 0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	922	13	42	979	8	27
Future Vol, veh/h	922	13	42	979	8	27
Conflicting Peds, #/hr	0	5	5	0	0	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	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	3	0	0
Mvmt Flow	776	14	44	824	8	28

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	795
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	835
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	831
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	17
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	336	-	-	831	-
HCM Lane V/C Ratio	0.11	-	-	0.053	-
HCM Control Delay (s)	17	-	-	9.6	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

HCM 6th TWSC
12: Oak Park Avenue & E-W Alley

01/17/2020

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	14	1	21	2	0	2	17	613	0	2	697	22
Future Vol, veh/h	14	1	21	2	0	2	17	613	0	2	697	22
Conflicting Peds, #/hr	0	0	0	0	0	0	16	0	16	16	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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	1	10
Mvmt Flow	15	1	22	2	0	2	18	652	0	2	741	23
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1462	1477	769	1472	1488	668	780	0	0	668	0	0
Stage 1	773	773	-	704	704	-	-	-	-	-	-	-
Stage 2	689	704	-	768	784	-	-	-	-	-	-	-
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	108	127	404	106	125	462	846	-	-	931	-	-
Stage 1	395	412	-	431	443	-	-	-	-	-	-	-
Stage 2	439	443	-	397	407	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	103	118	398	95	117	455	833	-	-	917	-	-
Mov Cap-2 Maneuver	103	118	-	95	117	-	-	-	-	-	-	-
Stage 1	376	404	-	410	422	-	-	-	-	-	-	-
Stage 2	422	422	-	372	399	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	29.8		28.6		0.3		0					
HCM LOS	D		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	833	-	-	183	157	917	-	-				
HCM Lane V/C Ratio	0.022	-	-	0.209	0.027	0.002	-	-				
HCM Control Delay (s)	9.4	0	-	29.8	28.6	8.9	0	-				
HCM Lane LOS	A	A	-	D	D	A	A	-				
HCM 95th %tile O(veh)	0.1	-	-	0.8	0.1	0	-	-				

HCM 6th TWSC
14: Wesley Avenue & E-W Alley

01/23/2020

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	1	0	2	3	0	0	3	26	1	0	44	6
Future Vol, veh/h	1	0	2	3	0	0	3	26	1	0	44	6
Conflicting Peds, #/hr	0	0	2	2	0	0	3	0	6	6	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	6	0	0	8	0
Mvmt Flow	1	0	2	3	0	0	3	27	1	0	46	6
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	86	92	54	92	95	34	55	0	0	34	0	0
Stage 1	52	52	-	40	40	-	-	-	-	-	-	-
Stage 2	34	40	-	52	55	-	-	-	-	-	-	-
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	905	802	1019	897	799	1045	1563	-	-	1591	-	-
Stage 1	966	856	-	980	866	-	-	-	-	-	-	-
Stage 2	987	866	-	966	853	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	901	793	1014	887	790	1039	1559	-	-	1582	-	-
Mov Cap-2 Maneuver	901	793	-	887	790	-	-	-	-	-	-	-
Stage 1	961	853	-	972	859	-	-	-	-	-	-	-
Stage 2	985	859	-	962	850	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.7		9.1			0.7			0			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1559	-	-	973	887	1582	-	-				
HCM Lane V/C Ratio	0.002	-	-	0.003	0.004	-	-	-				
HCM Control Delay (s)	7.3	0	-	8.7	9.1	0	-	-				
HCM Lane LOS	A	A	-	A	A	A	-	-				
HCM 95th %tile O(veh)	0	-	-	0	0	0	-	-				

HCM 6th TWSC
17: Oak Park Avenue & Adams Street

01/17/2020

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	1	6	28	8	15	40	14	589	10	18	686	16
Future Vol, veh/h	1	6	28	8	15	40	14	589	10	18	686	16
Conflicting Peds, #/hr	5	0	4	4	0	5	10	0	7	7	0	10
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	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	17	0	0	7	0	7	2	0	0	2	0
Mvmt Flow	1	6	29	8	15	41	14	601	10	18	700	16
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1421	1400	722	1407	1403	618	726	0	0	618	0	0
Stage 1	754	754	-	641	641	-	-	-	-	-	-	-
Stage 2	667	646	-	766	762	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.67	6.2	7.1	6.57	6.2	4.17	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.67	-	6.1	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.67	-	6.1	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.153	3.3	3.5	4.063	3.3	2.263	-	-	2.2	-	-
Pot Cap-1 Maneuver	115	131	430	118	136	493	855	-	-	972	-	-
Stage 1	404	396	-	466	462	-	-	-	-	-	-	-
Stage 2	451	445	-	398	406	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	90	122	424	100	126	487	847	-	-	966	-	-
Mov Cap-2 Maneuver	90	122	-	100	126	-	-	-	-	-	-	-
Stage 1	390	380	-	451	447	-	-	-	-	-	-	-
Stage 2	387	431	-	353	389	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	19.9		27.4		0.2		0.2					
HCM LOS	C		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	847	-	-	277	224	966	-	-				
HCM Lane V/C Ratio	0.017	-	-	0.129	0.287	0.019	-	-				
HCM Control Delay (s)	9.3	0	-	19.9	27.4	8.8	0	-				
HCM Lane LOS	A	A	-	C	D	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.4	1.1	0.1	-	-				

HCM 6th TWSC
19: Wesley Avenue & Adams Street

01/23/2020

Intersection												
Int Delay, s/veh	6.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	26	3	1	40	9	4	10	4	11	29	13
Future Vol, veh/h	15	26	3	1	40	9	4	10	4	11	29	13
Conflicting Peds, #/hr	0	0	7	7	0	0	2	0	2	2	0	2
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	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	23	0	0	12	40	0	10	0	0	0	14
Mvmt Flow	19	33	4	1	51	11	5	13	5	14	37	16
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	132	105	54	127	111	18	55	0	0	20	0	0
Stage 1	75	75	-	28	28	-	-	-	-	-	-	-
Stage 2	57	30	-	99	83	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.73	6.2	7.1	6.62	6.6	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.207	3.3	3.5	4.108	3.66	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	845	747	1019	851	761	960	1563	-	-	1609	-	-
Stage 1	939	793	-	994	852	-	-	-	-	-	-	-
Stage 2	960	830	-	912	807	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	783	735	1010	804	749	958	1560	-	-	1606	-	-
Mov Cap-2 Maneuver	783	735	-	804	749	-	-	-	-	-	-	-
Stage 1	934	784	-	989	848	-	-	-	-	-	-	-
Stage 2	889	826	-	857	798	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	10.1		10			1.6			1.5			
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1560	-	-	765	781	1606	-	-				
HCM Lane V/C Ratio	0.003	-	-	0.073	0.081	0.009	-	-				
HCM Control Delay (s)	7.3	0	-	10.1	10	7.3	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile O(veh)	0	-	-	0.2	0.3	0	-	-				

HCM 6th TWSC
22: Madison Street & Wesley Avenue (North Leg)

01/23/2020

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	926	976	12	8	45
Future Vol, veh/h	23	926	976	12	8	45
Conflicting Peds, #/hr	0	0	0	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	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	3	0	0	0
Mvmt Flow	24	780	822	13	8	47

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	835	0	0 1657 829
Stage 1	-	-	- 829 -
Stage 2	-	-	- 828 -
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	807	-	- 109 374
Stage 1	-	-	- 432 -
Stage 2	-	-	- 432 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	807	-	- 106 374
Mov Cap-2 Maneuver	-	-	- 243 -
Stage 1	-	-	- 419 -
Stage 2	-	-	- 432 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	17.4
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	807	-	-	-	346
HCM Lane V/C Ratio	0.03	-	-	-	0.161
HCM Control Delay (s)	9.6	-	-	-	17.4
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.6

HCM 6th TWSC
24: Clarence Avenue & Madison Street

01/23/2020

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	918	16	12	983	5	14
Future Vol, veh/h	918	16	12	983	5	14
Conflicting Peds, #/hr	0	0	0	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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	3	0	0
Mvmt Flow	773	17	13	828	5	15

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	790
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	839
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	839
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	16.1
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	343	-	-	839	-
HCM Lane V/C Ratio	0.058	-	-	0.015	-
HCM Control Delay (s)	16.1	-	-	9.4	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0	-

Lanes, Volumes, Timings

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	950	53	102	728	127	123	447	65	141	431	96
Future Volume (vph)	100	950	53	102	728	127	123	447	65	141	431	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	11	11	10	10	12	10	10	12
Storage Length (ft)	85		50	70		100	95		0	100		0
Storage Lanes	1		1	1		1	1		0	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			0.95			0.97	0.98	0.99		0.98	0.99	
Frt			0.850			0.850		0.981			0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1636	1722	1380	1652	1766	1336	1668	3165	0	1652	3169	0
Flt Permitted	0.212			0.088			0.229			0.243		
Satd. Flow (perm)	365	1722	1315	153	1766	1296	394	3165	0	415	3169	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		532			329			187			195	
Travel Time (s)		12.1			7.5			4.3			4.4	
Confl. Peds. (#/hr)	11		10	10		11	21		19	19		21
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	80%	100%	100%	80%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	4%	2%	1%	4%	0%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	0
Parking (#/hr)			4			4			4			4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	106	809	56	109	620	135	131	545	0	150	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)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	24.0	24.0	8.0	24.0	24.0	9.0	24.0		9.0	24.0	
Total Split (s)	8.0	50.0	50.0	8.0	50.0	50.0	9.0	33.0		9.0	33.0	
Total Split (%)	8.0%	50.0%	50.0%	8.0%	50.0%	50.0%	9.0%	33.0%		9.0%	33.0%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	1.0	-2.0	0.0	1.0	-2.0	0.0	1.0	-2.0		1.0	-2.0	
Total Lost Time (s)	4.0	4.0	6.0	4.0	4.0	6.0	4.0	4.0		4.0	4.0	
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	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	53.4	48.0	46.0	54.3	48.4	46.4	30.2	25.2		30.2	25.2	
Actuated g/C Ratio	0.53	0.48	0.46	0.54	0.48	0.46	0.30	0.25		0.30	0.25	
v/c Ratio	0.40	0.98	0.09	0.64	0.73	0.22	0.72	0.68		0.81	0.70	
Control Delay	16.0	54.5	16.9	30.1	26.6	15.7	47.7	38.2		57.5	38.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	

Lanes, Volumes, Timings

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	16.0	54.5	16.9	30.1	26.6	15.7	47.7	38.2		57.5	38.8	
LOS	B	D	B	C	C	B	D	D		E	D	
Approach Delay	48.1			25.3			40.1			42.8		
Approach LOS	D			C			D			D		
Queue Length 50th (ft)	29	~529	20	29	353	61	59	164		68	170	
Queue Length 95th (ft)	59	#780	45	m#69	484	m84	#115	212		#142	220	
Internal Link Dist (ft)	452			249			107			115		
Turn Bay Length (ft)	85		50	70		100	95			100		
Base Capacity (vph)	264	826	604	171	854	601	182	917		186	919	
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	0.40	0.98	0.09	0.64	0.73	0.22	0.72	0.59		0.81	0.61	

Intersection Summary

Area Type:	Other
------------	-------

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 39.1

Intersection LOS: D

Intersection Capacity Utilization 81.6%

ICU Level of Service D

Analysis Period (min) 15

- ~ Volume exceeds capacity, queue is theoretically infinite.

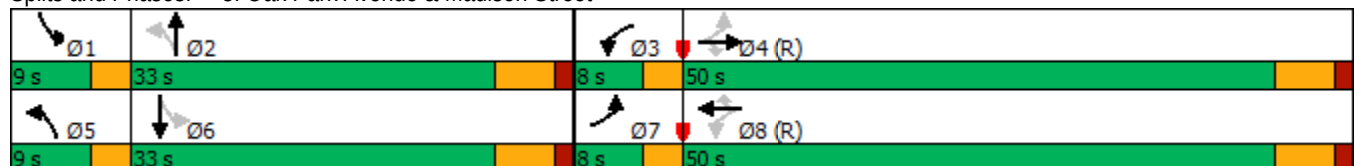
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Oak Park Avenue & Madison Street



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

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	955	33	43	790	50	74	258	39	67	150	67
Future Volume (vph)	150	955	33	43	790	50	74	258	39	67	150	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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			0.95			0.57	0.95	0.98		0.93	0.97	
Frt			0.850			0.850		0.980			0.954	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1557	1845	1341	1588	1827	1316	1573	1706	0	1557	1724	0
Flt Permitted	0.196			0.180			0.408			0.251		
Satd. Flow (perm)	321	1845	1274	301	1827	752	641	1706	0	383	1724	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			71			109		7			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		330			281			268			187	
Travel Time (s)		7.5			6.4			6.1			4.3	
Confl. Peds. (#/hr)	150		11	11		150	33		61	61		33
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%	80%	100%	100%	80%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	3%	6%	0%	4%	8%	1%	7%	3%	2%	1%	3%
Parking (#/hr)	4		4	4		4	4		4	4		4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	169	858	37	48	710	56	83	334	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)	5.0	5.0	5.0	3.5	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	24.0	24.0	7.0	24.0	24.0	24.0	24.0		24.0	24.0	
Total Split (s)	12.0	63.0	63.0	7.0	58.0	58.0	30.0	30.0		30.0	30.0	
Total Split (%)	12.0%	63.0%	63.0%	7.0%	58.0%	58.0%	30.0%	30.0%		30.0%	30.0%	
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)	1.0	-2.0	0.0	1.0	-2.0	0.0	-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)	4.5	4.0	6.0	4.5	4.0	6.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	67.2	63.1	61.1	59.6	56.1	54.1	24.1	24.1		24.1	24.1	
Actuated g/C Ratio	0.67	0.63	0.61	0.60	0.56	0.54	0.24	0.24		0.24	0.24	
v/c Ratio	0.55	0.74	0.05	0.21	0.69	0.12	0.54	0.80		0.82	0.57	
Control Delay	10.6	13.2	0.2	8.7	21.0	0.8	46.6	50.3		91.8	35.4	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	10.6	13.2	0.2	8.7	21.0	0.8	46.6	50.3		91.8	35.4	
LOS	B	B	A	A	C	A	D	D		F	D	

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

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		12.3			18.9			49.6				48.6
Approach LOS		B			B			D				D
Queue Length 50th (ft)	20	340	0	10	337	0	45	190		44	120	
Queue Length 95th (ft)	m22	m498	m0	22	457	2	96	#298		#123	196	
Internal Link Dist (ft)		250			201			188				107
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	311	1177	814	230	1030	459	167	450		99	466	
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	0.54	0.73	0.05	0.21	0.69	0.12	0.50	0.74		0.76	0.52	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 41 (41%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 24.8

Intersection LOS: C

Intersection Capacity Utilization 78.0%

ICU Level of Service D

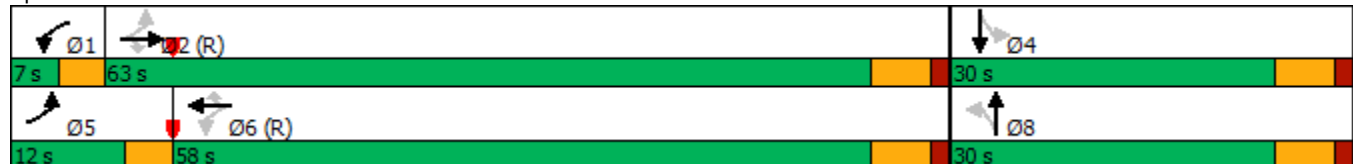
Analysis Period (min) 15

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: 26: East Avenue & Madison Street



HCM 6th AWSC
18: Euclid Avenue & Adams Street

01/17/2020

Intersection

Intersection Delay, s/veh 7.2
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	26	22	17	41	1	10	1	14	0	0	1
Future Vol, veh/h	1	26	22	17	41	1	10	1	14	0	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	32	6	0	15	0	17	14	0	0	0	0
Mvmt Flow	1	28	24	18	44	1	11	1	15	0	0	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7	7.4	7.3	6.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	40%	2%	29%	0%
Vol Thru, %	4%	53%	69%	0%
Vol Right, %	56%	45%	2%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	49	59	1
LT Vol	10	1	17	0
Through Vol	1	26	41	0
RT Vol	14	22	1	1
Lane Flow Rate	27	53	63	1
Geometry Grp	1	1	1	1
Degree of Util (X)	0.031	0.055	0.071	0.001
Departure Headway (Hd)	4.134	3.731	4.036	3.52
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	862	959	888	1008
Service Time	2.178	1.757	2.057	1.57
HCM Lane V/C Ratio	0.031	0.055	0.071	0.001
HCM Control Delay	7.3	7	7.4	6.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.2	0

HCM 6th TWSC
6: Access Drive & Madison Street

01/17/2020

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1145	11	4	945	12	4
Future Vol, veh/h	1145	11	4	945	12	4
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	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	3	0	0	4	0	0
Mvmt Flow	925	11	4	764	12	4
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	936	0	1703	931
Stage 1	-	-	-	-	931	-
Stage 2	-	-	-	-	772	-
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	-	-	740	-	102	326
Stage 1	-	-	-	-	387	-
Stage 2	-	-	-	-	459	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	740	-	101	326
Mov Cap-2 Maneuver	-	-	-	-	237	-
Stage 1	-	-	-	-	387	-
Stage 2	-	-	-	-	455	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		20.1	
HCM LOS	C					
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	254	-	-	740	-	
HCM Lane V/C Ratio	0.064	-	-	0.005	-	
HCM Control Delay (s)	20.1	-	-	9.9	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile O(veh)	0.2	-	-	0	-	

HCM 6th TWSC
8: Madison Street & Euclid Avenue

01/17/2020

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	1131	933	17	4	16
Future Vol, veh/h	18	1131	933	17	4	16
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	99	99	99	99	99	99
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	18	914	754	17	4	16

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	779	0	0 1721 771
Stage 1	-	-	- 771 -
Stage 2	-	-	- 950 -
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	-	- 99 403
Stage 1	-	-	- 460 -
Stage 2	-	-	- 379 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	841	-	- 95 400
Mov Cap-2 Maneuver	-	-	- 229 -
Stage 1	-	-	- 447 -
Stage 2	-	-	- 376 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	16
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	841	-	-	-	348
HCM Lane V/C Ratio	0.022	-	-	-	0.058
HCM Control Delay (s)	9.4	-	-	-	16
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

HCM 6th TWSC
10: Wesley Avenue & Madison Street

01/17/2020

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1132	3	6	942	8	28
Future Vol, veh/h	1132	3	6	942	8	28
Conflicting Peds, #/hr	0	8	8	0	1	5
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	98	98	98	98	98	98
Heavy Vehicles, %	3	0	0	3	25	25
Mvmt Flow	924	3	6	769	8	29

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	935
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	741
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	735
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	20.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	265	-	-	735	-
HCM Lane V/C Ratio	0.139	-	-	0.008	-
HCM Control Delay (s)	20.8	-	-	9.9	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.5	-	-	0	-

HCM 6th TWSC
12: Oak Park Avenue & E-W Alley

01/17/2020

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	5	0	9	1	0	8	1	622	4	1	567	10
Future Vol, veh/h	5	0	9	1	0	8	1	622	4	1	567	10
Conflicting Peds, #/hr	0	0	0	0	0	0	17	0	6	6	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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	5	10
Mvmt Flow	5	0	10	1	0	9	1	669	4	1	610	11

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1313	1316	633	1302	1319	677	638	0	0	679	0	0
Stage 1	635	635	-	679	679	-	-	-	-	-	-	-
Stage 2	678	681	-	623	640	-	-	-	-	-	-	-
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	137	159	483	139	158	456	956	-	-	923	-	-
Stage 1	470	476	-	445	454	-	-	-	-	-	-	-
Stage 2	445	453	-	477	473	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	132	155	475	135	154	453	941	-	-	918	-	-
Mov Cap-2 Maneuver	132	155	-	135	154	-	-	-	-	-	-	-
Stage 1	462	467	-	441	450	-	-	-	-	-	-	-
Stage 2	436	449	-	466	464	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	20.6		15.3		0		0	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	941	-	-	246	359	918	-
HCM Lane V/C Ratio	0.001	-	-	0.061	0.027	0.001	-
HCM Control Delay (s)	8.8	0	-	20.6	15.3	8.9	0
HCM Lane LOS	A	A	-	C	C	A	A
HCM 95th %tile Q(veh)	0	-	-	0.2	0.1	0	-

HCM 6th TWSC
14: Wesley Avenue & E-W Alley

01/17/2020

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	5	4	2	0	0	1	1	28	1	3	0	3
Future Vol, veh/h	5	4	2	0	0	1	1	28	1	3	0	3
Conflicting Peds, #/hr	1	0	2	2	0	1	0	0	4	4	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	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	0	0	0	0	0	0	0	6	0	0	8	0
Mvmt Flow	6	5	2	0	0	1	1	32	1	3	0	3
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	44	47	4	52	48	38	3	0	0	37	0	0
Stage 1	8	8	-	39	39	-	-	-	-	-	-	-
Stage 2	36	39	-	13	9	-	-	-	-	-	-	-
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	963	849	1085	952	847	1040	1632	-	-	1587	-	-
Stage 1	1019	893	-	981	866	-	-	-	-	-	-	-
Stage 2	985	866	-	1013	892	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	959	843	1083	939	841	1035	1632	-	-	1581	-	-
Mov Cap-2 Maneuver	959	843	-	939	841	-	-	-	-	-	-	-
Stage 1	1018	891	-	976	862	-	-	-	-	-	-	-
Stage 2	982	862	-	1002	890	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	8.9		8.5			0.2			3.6			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1632	-	-	932 1035	1581	-	-					
HCM Lane V/C Ratio	0.001	-	-	0.014 0.001	0.002	-	-					
HCM Control Delay (s)	7.2	0	-	8.9 8.5	7.3	0	-					
HCM Lane LOS	A	A	-	A A	A	A	-					
HCM 95th %tile O(veh)	0	-	-	0 0	0	-	-					

HCM 6th TWSC
17: Oak Park Avenue & Adams Street

01/17/2020

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	1	6	13	5	19	34	11	594	11	22	554	8
Future Vol, veh/h	1	6	13	5	19	34	11	594	11	22	554	8
Conflicting Peds, #/hr	2	0	5	5	0	2	6	0	20	20	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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	7	14	5	21	37	12	646	12	24	602	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1368	1363	618	1366	1361	674	617	0	0	678	0	0
Stage 1	661	661	-	696	696	-	-	-	-	-	-	-
Stage 2	707	702	-	670	665	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	124	148	489	124	148	455	963	-	-	914	-	-
Stage 1	452	460	-	432	443	-	-	-	-	-	-	-
Stage 2	426	440	-	446	458	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	95	136	484	108	136	445	957	-	-	897	-	-
Mov Cap-2 Maneuver	95	136	-	108	136	-	-	-	-	-	-	-
Stage 1	440	438	-	415	426	-	-	-	-	-	-	-
Stage 2	364	423	-	407	436	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	21.1		27.7		0.2		0.3	
HCM LOS	C		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	957	-	-	245	221	897	-
HCM Lane V/C Ratio	0.012	-	-	0.089	0.285	0.027	-
HCM Control Delay (s)	8.8	0	-	21.1	27.7	9.1	0
HCM Lane LOS	A	A	-	C	D	A	A
HCM 95th %tile Q(veh)	0	-	-	0.3	1.1	0.1	-

HCM 6th TWSC
19: Wesley Avenue & Adams Street

01/17/2020

Intersection												
Int Delay, s/veh	8.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	14	28	5	21	45	6	2	10	1	1	1	1
Future Vol, veh/h	14	28	5	21	45	6	2	10	1	1	1	1
Conflicting Peds, #/hr	3	0	13	13	0	3	1	0	3	3	0	1
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	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	23	0	0	12	40	0	10	0	0	0	14
Mvmt Flow	17	35	6	26	56	7	2	12	1	1	1	1
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	56	25	16	57	25	19	3	0	0	16	0	0
Stage 1	5	5	-	20	20	-	-	-	-	-	-	-
Stage 2	51	20	-	37	5	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.73	6.2	7.1	6.62	6.6	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.207	3.3	3.5	4.108	3.66	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	946	829	1069	945	849	959	1632	-	-	1615	-	-
Stage 1	1022	851	-	1004	859	-	-	-	-	-	-	-
Stage 2	967	839	-	984	872	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	886	824	1055	894	844	954	1630	-	-	1610	-	-
Mov Cap-2 Maneuver	886	824	-	894	844	-	-	-	-	-	-	-
Stage 1	1020	849	-	1000	856	-	-	-	-	-	-	-
Stage 2	894	836	-	926	870	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9.5		9.6			1.1			2.4			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1630	-	-	862	866	1610	-	-				
HCM Lane V/C Ratio	0.002	-	-	0.067	0.103	0.001	-	-				
HCM Control Delay (s)	7.2	0	-	9.5	9.6	7.2	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile O(veh)	0	-	-	0.2	0.3	0	-	-				

Intersection

Int Delay, s/veh 0.7

Movement EBL EBT WBT WBR SBL SBRLane Configurations 

Traffic Vol, veh/h 43 1117 904 17 7 44

Future Vol, veh/h 43 1117 904 17 7 44

Conflicting Peds, #/hr 0 0 0 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 - 0 -

Grade, % - 0 0 - 0 -

Peak Hour Factor 98 98 98 98 98 98

Heavy Vehicles, % 0 3 3 0 0 0

Mvmt Flow 44 912 738 17 7 45

Major/Minor Major1 Major2 Minor2

Conflicting Flow All 755 0 - 0 1747 747

Stage 1 - - - - 747 -

Stage 2 - - - - 1000 -

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 865 - - - 96 416

Stage 1 - - - - 472 -

Stage 2 - - - - 359 -

Platoon blocked, % - - - -

Mov Cap-1 Maneuver 865 - - - 91 416

Mov Cap-2 Maneuver - - - - 223 -

Stage 1 - - - - 448 -

Stage 2 - - - - 359 -

Approach EB WB SB

HCM Control Delay, s 0.4 0 16.2

HCM LOS C

Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1

Capacity (veh/h) 865 - - - 372

HCM Lane V/C Ratio 0.051 - - - 0.14

HCM Control Delay (s) 9.4 - - - 16.2

HCM Lane LOS A - - - C

HCM 95th %tile Q(veh) 0.2 - - - 0.5

HCM 6th TWSC
24: Clarence Avenue & Madison Street

01/17/2020

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1116	8	26	905	16	22
Future Vol, veh/h	1116	8	26	905	16	22
Conflicting Peds, #/hr	0	0	0	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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	940	8	27	762	17	23

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	948
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	732
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	732
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	20.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	271	-	-	732	-
HCM Lane V/C Ratio	0.148	-	-	0.037	-
HCM Control Delay (s)	20.6	-	-	10.1	-
HCM Lane LOS	C	-	-	B	-
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Lanes, Volumes, Timings

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	117	736	110	96	752	159	112	449	67	145	525	91
Future Volume (vph)	117	736	110	96	752	159	112	449	67	145	525	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	11	11	10	10	12	10	10	12
Storage Length (ft)	85		50	70		100	95		0	100		0
Storage Lanes	1		1	1		1	1		0	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			0.92			0.95	0.97	0.99		0.97	0.98	
Frt			0.850			0.850		0.981			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1685	1756	1407	1685	1783	1349	1685	3211	0	1668	3178	0
Flt Permitted	0.221			0.271			0.218			0.304		
Satd. Flow (perm)	392	1756	1301	481	1783	1285	376	3211	0	520	3178	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		532			329			187			195	
Travel Time (s)		12.1			7.5			4.3			4.4	
Confl. Peds. (#/hr)	21		19	19		21	35		25	25		35
Confl. Bikes (#/hr)			5			3			2			3
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%	80%	100%	100%	80%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	1%	0%	3%	1%	0%	2%	0%	1%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	3
Parking (#/hr)			4			4			4			4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	121	607	113	99	620	164	115	532	0	149	635	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)	5.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	24.0	24.0	7.0	24.0	24.0	8.0	24.0		8.0	24.0	
Total Split (s)	8.0	53.0	53.0	7.0	52.0	52.0	8.0	32.0		8.0	32.0	
Total Split (%)	8.0%	53.0%	53.0%	7.0%	52.0%	52.0%	8.0%	32.0%		8.0%	32.0%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	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	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	57.3	49.8	49.8	55.0	47.1	47.1	32.1	24.1		32.1	24.1	
Actuated g/C Ratio	0.57	0.50	0.50	0.55	0.47	0.47	0.32	0.24		0.32	0.24	
v/c Ratio	0.40	0.69	0.17	0.31	0.74	0.27	0.62	0.69		0.67	0.83	
Control Delay	14.1	25.6	16.0	12.5	28.4	18.0	38.7	39.4		40.2	46.1	

Lanes, Volumes, Timings

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
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	25.6	16.0	12.5	28.4	18.0	38.7	39.4		40.2	46.1	
LOS	B	C	B	B	C	B	D	D		D	D	
Approach Delay		22.7			24.7			39.2			45.0	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	33	303	40	27	317	63	49	158		65	197	
Queue Length 95th (ft)	61	443	75	51	461	109	#94	216		#118	264	
Internal Link Dist (ft)		452			249			107			115	
Turn Bay Length (ft)	85		50	70		100	95			100		
Base Capacity (vph)	299	874	647	323	840	606	186	834		224	826	
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	0.40	0.69	0.17	0.31	0.74	0.27	0.62	0.64		0.67	0.77	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 32.2

Intersection LOS: C

Intersection Capacity Utilization 78.9%

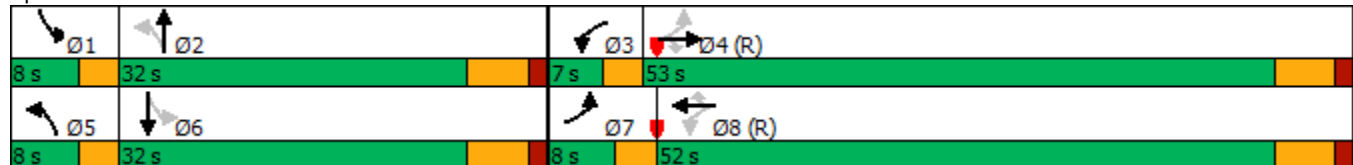
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Oak Park Avenue & Madison Street



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

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	814	59	62	843	54	49	202	48	42	288	87
Future Volume (vph)	74	814	59	62	843	54	49	202	48	42	288	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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			0.95			0.90	0.99	0.99		0.98	0.99	
Frt			0.850			0.850		0.971			0.965	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1573	1881	1421	1588	1863	1421	1588	1795	0	1557	1785	0
Flt Permitted	0.226			0.245			0.213			0.420		
Satd. Flow (perm)	374	1881	1353	410	1863	1286	352	1795	0	673	1785	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			79			79		13			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		329			270			190			227	
Travel Time (s)		7.5			6.1			4.3			5.2	
Confl. Peds. (#/hr)	30		11	11		30	14		16	16		14
Confl. Bikes (#/hr)			2			3						5
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%	80%	100%	100%	80%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	0%	2%	0%	0%	2%	0%	2%	1%	2%
Parking (#/hr)	4		4	4		4	4		4	4		4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	664	60	63	688	55	50	255	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)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	24.0	24.0	9.5	24.0	24.0	24.0	24.0		24.0	24.0	
Total Split (s)	9.5	54.5	54.5	9.5	54.5	54.5	26.0	26.0		26.0	26.0	
Total Split (%)	10.6%	60.6%	60.6%	10.6%	60.6%	60.6%	28.9%	28.9%		28.9%	28.9%	
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)	1.0	-2.0	0.0	1.0	-2.0	0.0	-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)	4.5	4.0	6.0	4.5	4.0	6.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	54.7	50.9	48.9	54.5	50.8	48.8	23.3	23.3		23.3	23.3	
Actuated g/C Ratio	0.61	0.57	0.54	0.61	0.56	0.54	0.26	0.26		0.26	0.26	
v/c Ratio	0.26	0.62	0.08	0.20	0.65	0.08	0.55	0.54		0.25	0.81	
Control Delay	8.5	17.4	1.9	7.8	18.3	1.5	54.7	31.9		30.7	45.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	8.5	17.4	1.9	7.8	18.3	1.5	54.7	31.9		30.7	45.1	

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

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	A	B	A	A	B	A	D	C		C	D	
Approach Delay		15.4			16.3			35.6			43.6	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	16	280	0	13	299	0	23	111		18	185	
Queue Length 95th (ft)	28	353	12	24	376	10	#82	199		51	#358	
Internal Link Dist (ft)		249			190			110			147	
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	298	1106	800	316	1095	762	93	484		178	484	
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	0.26	0.60	0.07	0.20	0.63	0.07	0.54	0.53		0.24	0.79	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 77 (86%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 23.5

Intersection LOS: C

Intersection Capacity Utilization 78.4%

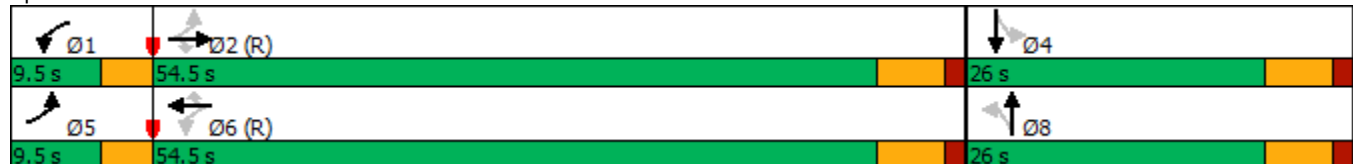
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 26: East Avenue & Madison Street



HCM 6th AWSC
18: Euclid Avenue & Adams Street

01/17/2020

Intersection

Intersection Delay, s/veh 7.3
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	31	13	23	44	1	14	1	20	1	1	1
Future Vol, veh/h	1	31	13	23	44	1	14	1	20	1	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	32	6	0	15	0	17	14	0	0	0	0
Mvmt Flow	1	35	15	26	50	1	16	1	23	1	1	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.1	7.5	7.4	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	40%	2%	34%	33%
Vol Thru, %	3%	69%	65%	33%
Vol Right, %	57%	29%	1%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	45	68	3
LT Vol	14	1	23	1
Through Vol	1	31	44	1
RT Vol	20	13	1	1
Lane Flow Rate	40	51	77	3
Geometry Grp	1	1	1	1
Degree of Util (X)	0.046	0.055	0.087	0.004
Departure Headway (Hd)	4.15	3.864	4.071	4.019
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	857	923	879	882
Service Time	2.205	1.903	2.104	2.083
HCM Lane V/C Ratio	0.047	0.055	0.088	0.003
HCM Control Delay	7.4	7.1	7.5	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.3	0

HCM 6th TWSC
6: Access DRIve & Madison Street

01/17/2020

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	936	12	5	993	14	6
Future Vol, veh/h	936	12	5	993	14	6
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	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	780	13	5	828	15	6
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	793	0	1625	787
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	838	-
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	-	114	395
Stage 1	-	-	-	-	452	-
Stage 2	-	-	-	-	428	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	837	-	113	395
Mov Cap-2 Maneuver	-	-	-	-	251	-
Stage 1	-	-	-	-	452	-
Stage 2	-	-	-	-	423	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		18.8	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	282	-	-	837	-	
HCM Lane V/C Ratio	0.074	-	-	0.006	-	
HCM Control Delay (s)	18.8	-	-	9.3	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile Q(veh)	0.2	-	-	0	-	

HCM 6th TWSC
8: Madison Street & Euclid Avenue

01/17/2020

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	925	972	15	6	26
Future Vol, veh/h	17	925	972	15	6	26
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	96	96	96	96	96	96
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	18	771	810	16	6	27

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	834	0	0 1633 826
Stage 1	-	-	- - 826 -
Stage 2	-	-	- - 807 -
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	808	-	- - 113 375
Stage 1	-	-	- - 433 -
Stage 2	-	-	- - 442 -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	802	-	- - 109 372
Mov Cap-2 Maneuver	-	-	- - 245 -
Stage 1	-	-	- - 420 -
Stage 2	-	-	- - 438 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	16.8
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	802	-	-	-	339
HCM Lane V/C Ratio	0.022	-	-	-	0.098
HCM Control Delay (s)	9.6	-	-	-	16.8
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

HCM 6th TWSC
10: Wesley Avenue & Madison Street

01/17/2020

Intersection

Int Delay, s/veh 0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	928	3	10	979	8	34
Future Vol, veh/h	928	3	10	979	8	34
Conflicting Peds, #/hr	0	5	5	0	0	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	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	3	0	0
Mvmt Flow	781	3	11	824	8	36

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	789
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	840
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	836
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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)	352	-	-	836	-
HCM Lane V/C Ratio	0.126	-	-	0.013	-
HCM Control Delay (s)	16.7	-	-	9.4	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0	-

HCM 6th TWSC
12: Oak Park Avenue & E-W Alley

01/17/2020

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	14	1	21	2	0	2	17	613	0	2	707	22
Future Vol, veh/h	14	1	21	2	0	2	17	613	0	2	707	22
Conflicting Peds, #/hr	0	0	0	0	0	0	16	0	16	16	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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	1	10
Mvmt Flow	15	1	22	2	0	2	18	652	0	2	752	23

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1473	1488	780	1483	1499	668	791	0	0	668	0	0
Stage 1	784	784	-	704	704	-	-	-	-	-	-	-
Stage 2	689	704	-	779	795	-	-	-	-	-	-	-
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	106	125	399	104	123	462	838	-	-	931	-	-
Stage 1	389	407	-	431	443	-	-	-	-	-	-	-
Stage 2	439	443	-	392	402	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	101	117	393	93	115	455	825	-	-	917	-	-
Mov Cap-2 Maneuver	101	117	-	93	115	-	-	-	-	-	-	-
Stage 1	370	399	-	410	422	-	-	-	-	-	-	-
Stage 2	422	422	-	367	394	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	30.5		29		0.3		0	
HCM LOS	D		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	825	-	-	179	154	917	-
HCM Lane V/C Ratio	0.022	-	-	0.214	0.028	0.002	-
HCM Control Delay (s)	9.5	0	-	30.5	29	8.9	0
HCM Lane LOS	A	A	-	D	D	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.8	0.1	0	-

HCM 6th TWSC
14: Wesley Avenue & E-W Alley

01/17/2020

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	1	2	2	3	0	0	3	31	1	2	0	6
Future Vol, veh/h	1	2	2	3	0	0	3	31	1	2	0	6
Conflicting Peds, #/hr	0	0	2	2	0	0	3	0	6	6	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	6	0	0	8	0
Mvmt Flow	1	2	2	3	0	0	3	33	1	2	0	6
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	50	56	8	57	59	40	9	0	0	40	0	0
Stage 1	10	10	-	46	46	-	-	-	-	-	-	-
Stage 2	40	46	-	11	13	-	-	-	-	-	-	-
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	955	839	1080	945	836	1037	1624	-	-	1583	-	-
Stage 1	1016	891	-	973	861	-	-	-	-	-	-	-
Stage 2	980	861	-	1015	889	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	950	829	1075	932	826	1031	1619	-	-	1574	-	-
Mov Cap-2 Maneuver	950	829	-	932	826	-	-	-	-	-	-	-
Stage 1	1011	887	-	965	854	-	-	-	-	-	-	-
Stage 2	978	854	-	1008	885	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	8.9		8.9		0.6		1.8					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1619	-	-	939	932	1574	-	-				
HCM Lane V/C Ratio	0.002	-	-	0.006	0.003	0.001	-	-				
HCM Control Delay (s)	7.2	0	-	8.9	8.9	7.3	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile O(veh)	0	-	-	0	0	0	-	-				

HCM 6th TWSC
17: Oak Park Avenue & Adams Street

01/17/2020

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	1	6	28	8	15	46	14	589	10	25	687	16
Future Vol, veh/h	1	6	28	8	15	46	14	589	10	25	687	16
Conflicting Peds, #/hr	5	0	4	4	0	5	10	0	7	7	0	10
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	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	17	0	0	7	0	7	2	0	0	2	0
Mvmt Flow	1	6	29	8	15	47	14	601	10	26	701	16

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1441	1417	723	1424	1420	618	727	0	0	618	0	0
Stage 1	771	771	-	641	641	-	-	-	-	-	-	-
Stage 2	670	646	-	783	779	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.67	6.2	7.1	6.57	6.2	4.17	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.67	-	6.1	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.67	-	6.1	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.153	3.3	3.5	4.063	3.3	2.263	-	-	2.2	-	-
Pot Cap-1 Maneuver	111	127	430	115	133	493	854	-	-	972	-	-
Stage 1	396	389	-	466	462	-	-	-	-	-	-	-
Stage 2	450	445	-	390	399	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	85	116	424	96	122	487	846	-	-	966	-	-
Mov Cap-2 Maneuver	85	116	-	96	122	-	-	-	-	-	-	-
Stage 1	383	368	-	451	447	-	-	-	-	-	-	-
Stage 2	381	431	-	340	377	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	20.4		27.6		0.2		0.3	
HCM LOS	C		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	846	-	-	270	229	966	-
HCM Lane V/C Ratio	0.017	-	-	0.132	0.307	0.026	-
HCM Control Delay (s)	9.3	0	-	20.4	27.6	8.8	0
HCM Lane LOS	A	A	-	C	D	A	A
HCM 95th %tile Q(veh)	0.1	-	-	0.5	1.3	0.1	-

HCM 6th TWSC
19: Wesley Avenue & Adams Street

01/17/2020

Intersection												
Int Delay, s/veh	8.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	32	10	29	40	9	4	10	4	1	2	1
Future Vol, veh/h	19	32	10	29	40	9	4	10	4	1	2	1
Conflicting Peds, #/hr	0	0	7	7	0	0	2	0	2	2	0	2
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	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	23	0	0	12	40	0	10	0	0	0	14
Mvmt Flow	24	41	13	37	51	11	5	13	5	1	3	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	65	38	13	68	36	18	6	0	0	20	0	0
Stage 1	8	8	-	28	28	-	-	-	-	-	-	-
Stage 2	57	30	-	40	8	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.73	6.2	7.1	6.62	6.6	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.207	3.3	3.5	4.108	3.66	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	934	815	1073	930	837	960	1628	-	-	1609	-	-
Stage 1	1019	849	-	994	852	-	-	-	-	-	-	-
Stage 2	960	830	-	980	869	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	875	808	1064	873	830	958	1625	-	-	1606	-	-
Mov Cap-2 Maneuver	875	808	-	873	830	-	-	-	-	-	-	-
Stage 1	1014	846	-	989	848	-	-	-	-	-	-	-
Stage 2	889	826	-	915	866	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.6		9.7		1.6		1.8	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1625	-	-	863	859	1606	-
HCM Lane V/C Ratio	0.003	-	-	0.089	0.115	0.001	-
HCM Control Delay (s)	7.2	0	-	9.6	9.7	7.2	0
HCM Lane LOS	A	A	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.4	0	-

HCM 6th TWSC
22: Madison Street & Wesley Avenue (North Leg)

01/17/2020

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	939	944	12	8	45
Future Vol, veh/h	23	939	944	12	8	45
Conflicting Peds, #/hr	0	0	0	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	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	3	0	0	0
Mvmt Flow	24	791	795	13	8	47

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	808	0	0 1641 802
Stage 1	-	-	- 802 -
Stage 2	-	-	- 839 -
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	826	-	- 111 387
Stage 1	-	-	- 445 -
Stage 2	-	-	- 427 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	826	-	- 108 387
Mov Cap-2 Maneuver	-	-	- 245 -
Stage 1	-	-	- 432 -
Stage 2	-	-	- 427 -

Approach	EB	WB	SB
HCM Control Delay, s	0.3	0	17
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	826	-	-	-	356
HCM Lane V/C Ratio	0.029	-	-	-	0.157
HCM Control Delay (s)	9.5	-	-	-	17
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5

HCM 6th TWSC
24: Clarence Avenue & Madison Street

01/17/2020

Intersection

Int Delay, s/veh 0.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	931	16	38	941	15	16
Future Vol, veh/h	931	16	38	941	15	16
Conflicting Peds, #/hr	0	0	0	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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	3	0	0
Mvmt Flow	784	17	40	792	16	17

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	801
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	831
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	831
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	18.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	299	-	-	831	-
HCM Lane V/C Ratio	0.109	-	-	0.048	-
HCM Control Delay (s)	18.5	-	-	9.6	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0.2	-

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

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	100	955	53	102	726	127	129	447	65	141	431	96
Future Volume (vph)	100	955	53	102	726	127	129	447	65	141	431	96
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	11	11	10	10	12	10	10	12
Storage Length (ft)	85		50	70		100	95		0	100		0
Storage Lanes	1		1	1		1	1		0	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			0.95			0.97	0.98	0.99		0.98	0.99	
Frt			0.850			0.850		0.981			0.973	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1636	1722	1380	1652	1766	1336	1668	3165	0	1652	3169	0
Flt Permitted	0.214			0.088			0.229			0.243		
Satd. Flow (perm)	368	1722	1315	153	1766	1296	394	3165	0	415	3169	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		532			329			187			195	
Travel Time (s)		12.1			7.5			4.3			4.4	
Confl. Peds. (#/hr)	11		10	10		11	21		19	19		21
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Growth Factor	100%	80%	100%	100%	80%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	3%	3%	3%	2%	4%	2%	1%	4%	0%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	0
Parking (#/hr)			4			4			4			4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	106	813	56	109	618	135	137	545	0	150	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)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	24.0	24.0	8.0	24.0	24.0	9.0	24.0		9.0	24.0	
Total Split (s)	8.0	50.0	50.0	8.0	50.0	50.0	9.0	33.0		9.0	33.0	
Total Split (%)	8.0%	50.0%	50.0%	8.0%	50.0%	50.0%	9.0%	33.0%		9.0%	33.0%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	0.0	1.5	1.5	0.0	1.5	1.5	0.0	1.5		0.0	1.5	
Lost Time Adjust (s)	1.0	-2.0	0.0	1.0	-2.0	0.0	1.0	-2.0		1.0	-2.0	
Total Lost Time (s)	4.0	4.0	6.0	4.0	4.0	6.0	4.0	4.0		4.0	4.0	
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	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	53.4	48.0	46.0	54.3	48.4	46.4	30.2	25.2		30.2	25.2	
Actuated g/C Ratio	0.53	0.48	0.46	0.54	0.48	0.46	0.30	0.25		0.30	0.25	
v/c Ratio	0.40	0.98	0.09	0.64	0.72	0.22	0.75	0.68		0.81	0.70	
Control Delay	15.9	55.6	16.9	30.0	26.3	15.5	51.3	38.2		57.5	38.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	15.9	55.6	16.9	30.0	26.3	15.5	51.3	38.2		57.5	38.8	
LOS	B	E	B	C	C	B	D	D		E	D	
Approach Delay	49.1			25.0			40.8			42.8		
Approach LOS	D			C			D			D		
Queue Length 50th (ft)	29	~556	20	26	353	61	62	164		68	170	
Queue Length 95th (ft)	59	#786	45	m#70	481	m84	#125	212		#142	220	
Internal Link Dist (ft)	452			249			107			115		
Turn Bay Length (ft)	85		50	70		100	95			100		
Base Capacity (vph)	265	826	604	171	854	601	182	917		186	919	
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	0.40	0.98	0.09	0.64	0.72	0.22	0.75	0.59		0.81	0.61	

Intersection Summary

Area Type:	Other
------------	-------

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 90

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.98

Intersection Signal Delay: 39.5

Intersection LOS: D

Intersection Capacity Utilization 81.8%

ICU Level of Service D

Analysis Period (min) 15

- ~ Volume exceeds capacity, queue is theoretically infinite.

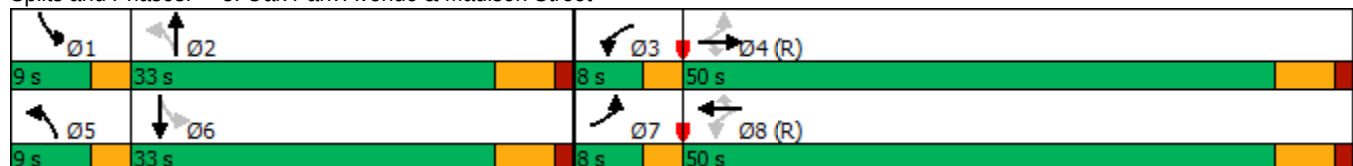
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

- m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 3: Oak Park Avenue & Madison Street



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

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	150	952	33	43	790	50	74	258	47	67	150	67
Future Volume (vph)	150	952	33	43	790	50	74	258	47	67	150	67
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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			0.95			0.57	0.95	0.97		0.93	0.97	
Frt			0.850			0.850		0.977			0.954	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1557	1845	1341	1588	1827	1316	1573	1695	0	1557	1724	0
Flt Permitted	0.191			0.177			0.414			0.245		
Satd. Flow (perm)	313	1845	1274	296	1827	752	650	1695	0	375	1724	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			71			109		9			22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		330			281			268			187	
Travel Time (s)		7.5			6.4			6.1			4.3	
Confl. Peds. (#/hr)	150		11	11		150	33		61	61		33
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%	80%	100%	100%	80%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	3%	6%	0%	4%	8%	1%	7%	3%	2%	1%	3%
Parking (#/hr)	4		4	4		4	4		4	4		4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	169	856	37	48	710	56	83	343	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)	5.0	5.0	5.0	3.5	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	24.0	24.0	7.0	24.0	24.0	24.0	24.0		24.0	24.0	
Total Split (s)	12.0	63.0	63.0	7.0	58.0	58.0	30.0	30.0		30.0	30.0	
Total Split (%)	12.0%	63.0%	63.0%	7.0%	58.0%	58.0%	30.0%	30.0%		30.0%	30.0%	
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)	1.0	-2.0	0.0	1.0	-2.0	0.0	-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)	4.5	4.0	6.0	4.5	4.0	6.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	66.7	62.6	60.6	59.0	55.5	53.5	24.6	24.6		24.6	24.6	
Actuated g/C Ratio	0.67	0.63	0.61	0.59	0.56	0.54	0.25	0.25		0.25	0.25	
v/c Ratio	0.56	0.74	0.05	0.21	0.70	0.12	0.52	0.81		0.82	0.55	
Control Delay	11.4	13.5	0.2	9.0	21.6	0.8	44.8	50.4		91.8	34.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	11.4	13.5	0.2	9.0	21.6	0.8	44.8	50.4		91.8	34.7	
LOS	B	B	A	A	C	A	D	D		F	C	

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

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		12.7			19.4			49.3				48.1
Approach LOS		B			B			D				D
Queue Length 50th (ft)	19	382	0	10	348	0	44	192		43	118	
Queue Length 95th (ft)	m22	m488	m0	22	457	2	95	#322		#124	196	
Internal Link Dist (ft)		250			201			188				107
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	305	1172	811	226	1025	457	171	453		98	470	
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	0.55	0.73	0.05	0.21	0.69	0.12	0.49	0.76		0.77	0.52	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 41 (41%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 70

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.82

Intersection Signal Delay: 25.0

Intersection LOS: C

Intersection Capacity Utilization 78.5%

ICU Level of Service D

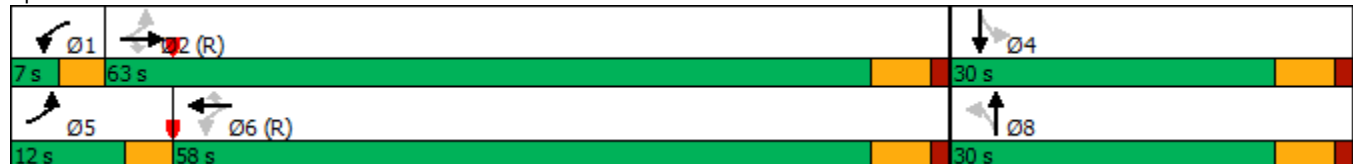
Analysis Period (min) 15

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: 26: East Avenue & Madison Street



HCM 6th AWSC
18: Euclid Avenue & Adams Street

01/17/2020

Intersection

Intersection Delay, s/veh	7.2
Intersection LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	26	22	17	47	1	10	1	14	0	0	1
Future Vol, veh/h	1	26	22	17	47	1	10	1	14	0	0	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles, %	0	32	6	0	15	0	17	14	0	0	0	0
Mvmt Flow	1	28	24	18	51	1	11	1	15	0	0	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7	7.4	7.3	6.6
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	40%	2%	26%	0%
Vol Thru, %	4%	53%	72%	0%
Vol Right, %	56%	45%	2%	100%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	25	49	65	1
LT Vol	10	1	17	0
Through Vol	1	26	47	0
RT Vol	14	22	1	1
Lane Flow Rate	27	53	70	1
Geometry Grp	1	1	1	1
Degree of Util (X)	0.031	0.055	0.078	0.001
Departure Headway (Hd)	4.146	3.736	4.032	3.532
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	859	957	890	1004
Service Time	2.192	1.763	2.052	1.584
HCM Lane V/C Ratio	0.031	0.055	0.079	0.001
HCM Control Delay	7.3	7	7.4	6.6
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.3	0

HCM 6th TWSC
6: Access Drive & Madison Street

01/17/2020

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1150	11	4	943	12	4
Future Vol, veh/h	1150	11	4	943	12	4
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	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	99	99	99	99	99	99
Heavy Vehicles, %	3	0	0	4	0	0
Mvmt Flow	929	11	4	762	12	4

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	940
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	737
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	737
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	20.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	253	-	-	737	-
HCM Lane V/C Ratio	0.064	-	-	0.005	-
HCM Control Delay (s)	20.2	-	-	9.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0	-

HCM 6th TWSC
8: Madison Street & Euclid Avenue

01/17/2020

Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	1136	931	17	4	16
Future Vol, veh/h	18	1136	931	17	4	16
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	99	99	99	99	99	99
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	18	918	752	17	4	16

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	777	0	0 1723 769
Stage 1	-	-	- - 769 -
Stage 2	-	-	- - 954 -
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	848	-	- - 99 404
Stage 1	-	-	- - 461 -
Stage 2	-	-	- - 377 -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	842	-	- - 95 401
Mov Cap-2 Maneuver	-	-	- - 229 -
Stage 1	-	-	- - 448 -
Stage 2	-	-	- - 374 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	15.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	842	-	-	-	349
HCM Lane V/C Ratio	0.022	-	-	-	0.058
HCM Control Delay (s)	9.4	-	-	-	15.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

HCM 6th TWSC
10: Wesley Avenue & Madison Street

01/17/2020

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1137	3	6	942	6	3
Future Vol, veh/h	1137	3	6	942	6	3
Conflicting Peds, #/hr	0	8	8	0	1	5
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	98	98	98	98	98	98
Heavy Vehicles, %	3	0	0	3	25	25
Mvmt Flow	928	3	6	769	6	3

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	939
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	738
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	732
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.1	21.4
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	229	-	-	732	-
HCM Lane V/C Ratio	0.04	-	-	0.008	-
HCM Control Delay (s)	21.4	-	-	10	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
12: Oak Park Avenue & E-W Alley

01/17/2020

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	5	0	9	1	0	8	1	628	4	1	576	10
Future Vol, veh/h	5	0	9	1	0	8	1	628	4	1	576	10
Conflicting Peds, #/hr	0	0	0	0	0	0	17	0	6	6	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	93	93	93	93	93	93	93	93	93	93	93	93
Heavy Vehicles, %	0	0	0	0	0	0	0	3	0	0	5	10
Mvmt Flow	5	0	10	1	0	9	1	675	4	1	619	11
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1328	1331	642	1317	1334	683	647	0	0	685	0	0
Stage 1	644	644	-	685	685	-	-	-	-	-	-	-
Stage 2	684	687	-	632	649	-	-	-	-	-	-	-
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	133	156	478	136	155	453	948	-	-	918	-	-
Stage 1	465	471	-	441	451	-	-	-	-	-	-	-
Stage 2	442	450	-	472	469	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	128	152	470	132	151	450	933	-	-	913	-	-
Mov Cap-2 Maneuver	128	152	-	132	151	-	-	-	-	-	-	-
Stage 1	457	463	-	437	447	-	-	-	-	-	-	-
Stage 2	433	446	-	461	461	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	20.9		15.4		0		0					
HCM LOS	C		C									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	933	-	-	241	355	913	-	-				
HCM Lane V/C Ratio	0.001	-	-	0.062	0.027	0.001	-	-				
HCM Control Delay (s)	8.9	0	-	20.9	15.4	8.9	0	-				
HCM Lane LOS	A	A	-	C	C	A	A	-				
HCM 95th %tile O(veh)	0	-	-	0.2	0.1	0	-	-				

HCM 6th TWSC
17: Oak Park Avenue & Adams Street

01/17/2020

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	1	6	13	5	19	40	11	594	11	22	554	8
Future Vol, veh/h	1	6	13	5	19	40	11	594	11	22	554	8
Conflicting Peds, #/hr	2	0	5	5	0	2	6	0	20	20	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	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	7	14	5	21	43	12	646	12	24	602	9

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1371	1363	618	1366	1361	674	617	0	0	678	0	0
Stage 1	661	661	-	696	696	-	-	-	-	-	-	-
Stage 2	710	702	-	670	665	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	123	148	489	124	148	455	963	-	-	914	-	-
Stage 1	452	460	-	432	443	-	-	-	-	-	-	-
Stage 2	424	440	-	446	458	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	93	136	484	108	136	445	957	-	-	897	-	-
Mov Cap-2 Maneuver	93	136	-	108	136	-	-	-	-	-	-	-
Stage 1	440	438	-	415	426	-	-	-	-	-	-	-
Stage 2	356	423	-	407	436	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	21.1		27		0.2		0.3	
HCM LOS	C		D					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	957	-	-	245	232	897	-
HCM Lane V/C Ratio	0.012	-	-	0.089	0.3	0.027	-
HCM Control Delay (s)	8.8	0	-	21.1	27	9.1	0
HCM Lane LOS	A	A	-	C	D	A	A
HCM 95th %tile Q(veh)	0	-	-	0.3	1.2	0.1	-

HCM 6th TWSC
19: Wesley Avenue & Adams Street

01/17/2020

Intersection												
Int Delay, s/veh	8.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	41	5	21	45	1	8	1	11	1	1	1
Future Vol, veh/h	1	41	5	21	45	1	8	1	11	1	1	1
Conflicting Peds, #/hr	3	0	13	13	0	3	1	0	3	3	0	1
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	81	81	81	81	81	81	81	81	81	81	81	81
Heavy Vehicles, %	0	23	0	0	12	40	0	10	0	0	0	14
Mvmt Flow	1	51	6	26	56	1	10	1	14	1	1	1
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	65	43	16	76	36	14	3	0	0	18	0	0
Stage 1	5	5	-	31	31	-	-	-	-	-	-	-
Stage 2	60	38	-	45	5	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.73	6.2	7.1	6.62	6.6	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.207	3.3	3.5	4.108	3.66	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	934	810	1069	919	837	966	1632	-	-	1612	-	-
Stage 1	1022	851	-	991	850	-	-	-	-	-	-	-
Stage 2	957	824	-	974	872	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	877	801	1055	852	828	960	1630	-	-	1607	-	-
Mov Cap-2 Maneuver	877	801	-	852	828	-	-	-	-	-	-	-
Stage 1	1015	849	-	982	842	-	-	-	-	-	-	-
Stage 2	885	817	-	898	870	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9.7		9.8			2.9			2.4			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1630	-	-	824	837	1607	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.07	0.099	0.001	-	-				
HCM Control Delay (s)	7.2	0	-	9.7	9.8	7.2	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile O(veh)	0	-	-	0.2	0.3	0	-	-				

HCM 6th TWSC
22: Madison Street & Wesley Avenue (North Leg)

01/17/2020

Intersection

Int Delay, s/veh 0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	43	1097	904	17	7	44
Future Vol, veh/h	43	1097	904	17	7	44
Conflicting Peds, #/hr	0	0	0	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	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	0	3	3	0	0	0
Mvmt Flow	44	896	738	17	7	45

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	755	0	0 1731 747
Stage 1	-	-	- 747 -
Stage 2	-	-	- 984 -
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	865	-	- 98 416
Stage 1	-	-	- 472 -
Stage 2	-	-	- 365 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	865	-	- 93 416
Mov Cap-2 Maneuver	-	-	- 225 -
Stage 1	-	-	- 448 -
Stage 2	-	-	- 365 -

Approach	EB	WB	SB
HCM Control Delay, s	0.4	0	16.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	865	-	-	-	373
HCM Lane V/C Ratio	0.051	-	-	-	0.14
HCM Control Delay (s)	9.4	-	-	-	16.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.2	-	-	-	0.5

HCM 6th TWSC
24: Clarence Avenue & Madison Street

01/17/2020

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	1096	8	26	905	16	39
Future Vol, veh/h	1096	8	26	905	16	39
Conflicting Peds, #/hr	0	0	0	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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	3	0	0	3	0	0
Mvmt Flow	923	8	27	762	17	41
Major/Minor	Major1	Major2		Minor1		
Conflicting Flow All	0	0	931	0	1743	927
Stage 1	-	-	-	-	927	-
Stage 2	-	-	-	-	816	-
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	-	-	743	-	96	328
Stage 1	-	-	-	-	389	-
Stage 2	-	-	-	-	438	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	743	-	93	328
Mov Cap-2 Maneuver	-	-	-	-	227	-
Stage 1	-	-	-	-	389	-
Stage 2	-	-	-	-	422	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.3		20.5	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	290	-	-	743	-	
HCM Lane V/C Ratio	0.2	-	-	0.037	-	
HCM Control Delay (s)	20.5	-	-	10	-	
HCM Lane LOS	C	-	-	B	-	
HCM 95th %tile Q(veh)	0.7	-	-	0.1	-	

Lanes, Volumes, Timings

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	117	736	110	96	750	159	114	449	67	145	525	91
Future Volume (vph)	117	736	110	96	750	159	114	449	67	145	525	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	10	10	12	10	11	11	10	10	12	10	10	12
Storage Length (ft)	85		50	70		100	95		0	100		0
Storage Lanes	1		1	1		1	1		0	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			0.92			0.95	0.97	0.99		0.97	0.98	
Frt			0.850			0.850		0.981			0.978	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1685	1756	1407	1685	1783	1349	1685	3211	0	1668	3178	0
Flt Permitted	0.222			0.271			0.218			0.304		
Satd. Flow (perm)	394	1756	1301	481	1783	1285	376	3211	0	520	3178	0
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		532			329			187			195	
Travel Time (s)		12.1			7.5			4.3			4.4	
Confl. Peds. (#/hr)	21		19	19		21	35		25	25		35
Confl. Bikes (#/hr)			5			3			2			3
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%	80%	100%	100%	80%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	0%	1%	1%	0%	3%	1%	0%	2%	0%	1%	2%	1%
Bus Blockages (#/hr)	0	0	0	0	0	2	0	0	0	0	0	3
Parking (#/hr)			4			4			4			4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	121	607	113	99	619	164	118	532	0	149	635	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)	5.0	5.0	5.0	4.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	8.0	24.0	24.0	7.0	24.0	24.0	8.0	24.0		8.0	24.0	
Total Split (s)	8.0	53.0	53.0	7.0	52.0	52.0	8.0	32.0		8.0	32.0	
Total Split (%)	8.0%	53.0%	53.0%	7.0%	52.0%	52.0%	8.0%	32.0%		8.0%	32.0%	
Yellow Time (s)	3.0	4.5	4.5	3.0	4.5	4.5	3.0	4.5		3.0	4.5	
All-Red Time (s)	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	None	C-Max	C-Max	None	C-Max	C-Max	None	None		None	None	
Act Effect Green (s)	57.3	49.8	49.8	55.0	47.1	47.1	32.1	24.1		32.1	24.1	
Actuated g/C Ratio	0.57	0.50	0.50	0.55	0.47	0.47	0.32	0.24		0.32	0.24	
v/c Ratio	0.40	0.69	0.17	0.31	0.74	0.27	0.63	0.69		0.67	0.83	
Control Delay	14.0	25.6	16.0	12.5	28.3	18.0	39.9	39.4		40.2	46.1	

Lanes, Volumes, Timings

3: Oak Park Avenue & Madison Street

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	14.0	25.6	16.0	12.5	28.3	18.0	39.9	39.4		40.2	46.1	
LOS	B	C	B	B	C	B	D	D		D	D	
Approach Delay		22.7			24.6			39.5			45.0	
Approach LOS		C			C			D			D	
Queue Length 50th (ft)	33	303	40	27	316	63	50	158		65	197	
Queue Length 95th (ft)	61	443	75	51	461	109	#98	216		#118	264	
Internal Link Dist (ft)		452			249			107			115	
Turn Bay Length (ft)	85		50	70		100	95			100		
Base Capacity (vph)	300	874	647	323	840	606	186	834		224	826	
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	0.40	0.69	0.17	0.31	0.74	0.27	0.63	0.64		0.67	0.77	

Intersection Summary

Area Type: Other

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 0 (0%), Referenced to phase 4:EBTL and 8:WBTL, Start of Green

Natural Cycle: 75

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.83

Intersection Signal Delay: 32.2

Intersection LOS: C

Intersection Capacity Utilization 78.9%

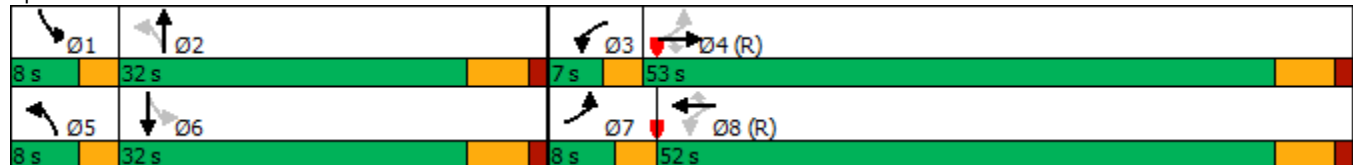
ICU Level of Service D

Analysis Period (min) 15

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 3: Oak Park Avenue & Madison Street



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

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	74	805	59	62	855	54	49	202	58	42	288	87
Future Volume (vph)	74	805	59	62	855	54	49	202	58	42	288	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
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			0.95			0.90	0.99	0.99		0.98	0.99	
Frt			0.850			0.850		0.967			0.965	
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1573	1881	1421	1588	1863	1421	1588	1785	0	1557	1785	0
Flt Permitted	0.220			0.251			0.211			0.402		
Satd. Flow (perm)	364	1881	1353	420	1863	1286	348	1785	0	645	1785	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			79			79		15			16	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		329			270			190			227	
Travel Time (s)		7.5			6.1			4.3			5.2	
Confl. Peds. (#/hr)	30		11	11		30	14		16	16		14
Confl. Bikes (#/hr)			2			3						5
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%	80%	100%	100%	80%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	1%	1%	0%	0%	2%	0%	0%	2%	0%	2%	1%	2%
Parking (#/hr)	4		4	4		4	4		4	4		4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	76	657	60	63	698	55	50	265	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)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	24.0	24.0	9.5	24.0	24.0	24.0	24.0		24.0	24.0	
Total Split (s)	9.5	54.5	54.5	9.5	54.5	54.5	26.0	26.0		26.0	26.0	
Total Split (%)	10.6%	60.6%	60.6%	10.6%	60.6%	60.6%	28.9%	28.9%		28.9%	28.9%	
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)	1.0	-2.0	0.0	1.0	-2.0	0.0	-2.0	-2.0		-2.0	-2.0	
Total Lost Time (s)	4.5	4.0	6.0	4.5	4.0	6.0	4.0	4.0		4.0	4.0	
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Min	C-Min	None	C-Min	C-Min	None	None		None	None	
Act Effect Green (s)	54.8	51.0	49.0	54.6	50.9	48.9	23.2	23.2		23.2	23.2	
Actuated g/C Ratio	0.61	0.57	0.54	0.61	0.57	0.54	0.26	0.26		0.26	0.26	
v/c Ratio	0.26	0.62	0.08	0.20	0.66	0.07	0.56	0.56		0.26	0.81	
Control Delay	8.5	17.1	1.9	7.7	18.5	1.5	55.7	32.5		31.2	45.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	8.5	17.1	1.9	7.7	18.5	1.5	55.7	32.5		31.2	45.3	

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

01/17/2020

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS	A	B	A	A	B	A	E	C		C	D	
Approach Delay		15.1			16.5			36.2			43.9	
Approach LOS		B			B			D			D	
Queue Length 50th (ft)	16	275	0	13	307	0	23	116		18	185	
Queue Length 95th (ft)	28	348	12	24	385	10	#83	206		51	#358	
Internal Link Dist (ft)		249			190			110			147	
Turn Bay Length (ft)	150		30	105		105	25			25		
Base Capacity (vph)	292	1106	800	322	1095	762	92	482		170	482	
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	0.26	0.59	0.07	0.20	0.64	0.07	0.54	0.55		0.25	0.79	

Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 77 (86%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 65

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.81

Intersection Signal Delay: 23.6

Intersection LOS: C

Intersection Capacity Utilization 78.9%

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.

Splits and Phases: 26: East Avenue & Madison Street

			
Ø1	Ø2 (R)		Ø4
9.5 s	54.5 s		26 s
			
Ø5	Ø6 (R)		Ø8
9.5 s	54.5 s		26 s

HCM 6th AWSC
18: Euclid Avenue & Adams Street

01/17/2020

Intersection

Intersection Delay, s/veh 7.4
Intersection LOS A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	31	13	23	46	1	14	1	20	1	1	1
Future Vol, veh/h	1	31	13	23	46	1	14	1	20	1	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles, %	0	32	6	0	15	0	17	14	0	0	0	0
Mvmt Flow	1	35	15	26	52	1	16	1	23	1	1	1
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	7.1	7.5	7.4	7.1
HCM LOS	A	A	A	A

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	40%	2%	33%	33%
Vol Thru, %	3%	69%	66%	33%
Vol Right, %	57%	29%	1%	33%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	35	45	70	3
LT Vol	14	1	23	1
Through Vol	1	31	46	1
RT Vol	20	13	1	1
Lane Flow Rate	40	51	80	3
Geometry Grp	1	1	1	1
Degree of Util (X)	0.046	0.055	0.09	0.004
Departure Headway (Hd)	4.154	3.866	4.07	4.023
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	856	922	879	881
Service Time	2.211	1.906	2.102	2.088
HCM Lane V/C Ratio	0.047	0.055	0.091	0.003
HCM Control Delay	7.4	7.1	7.5	7.1
HCM Lane LOS	A	A	A	A
HCM 95th-tile Q	0.1	0.2	0.3	0

HCM 6th TWSC
6: Access DRIve & Madison Street

01/17/2020

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	936	12	5	991	14	6
Future Vol, veh/h	936	12	5	991	14	6
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	1	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	1	0	0	2	0	0
Mvmt Flow	780	13	5	826	15	6
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	793	0	1623	787
Stage 1	-	-	-	-	787	-
Stage 2	-	-	-	-	836	-
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	-	114	395
Stage 1	-	-	-	-	452	-
Stage 2	-	-	-	-	429	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	837	-	113	395
Mov Cap-2 Maneuver	-	-	-	-	251	-
Stage 1	-	-	-	-	452	-
Stage 2	-	-	-	-	424	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0.1		18.8	
HCM LOS					C	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT	
Capacity (veh/h)	282	-	-	837	-	
HCM Lane V/C Ratio	0.074	-	-	0.006	-	
HCM Control Delay (s)	18.8	-	-	9.3	0	
HCM Lane LOS	C	-	-	A	A	
HCM 95th %tile O(veh)	0.2	-	-	0	-	

HCM 6th TWSC
8: Madison Street & Euclid Avenue

01/17/2020

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	925	970	15	6	26
Future Vol, veh/h	17	925	970	15	6	26
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	96	96	96	96	96	96
Heavy Vehicles, %	0	1	2	0	0	0
Mvmt Flow	18	771	808	16	6	27

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	832	0	0 1631 824
Stage 1	-	-	- - 824 -
Stage 2	-	-	- - 807 -
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	809	-	- - 113 376
Stage 1	-	-	- - 434 -
Stage 2	-	-	- - 442 -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	803	-	- - 109 373
Mov Cap-2 Maneuver	-	-	- - 246 -
Stage 1	-	-	- - 421 -
Stage 2	-	-	- - 438 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	16.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	803	-	-	-	340
HCM Lane V/C Ratio	0.022	-	-	-	0.098
HCM Control Delay (s)	9.6	-	-	-	16.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

HCM 6th TWSC
10: Wesley Avenue & Madison Street

01/17/2020

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	928	3	10	981	4	6
Future Vol, veh/h	928	3	10	981	4	6
Conflicting Peds, #/hr	0	5	5	0	0	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	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	3	0	0
Mvmt Flow	781	3	11	826	4	6

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	789
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	-	4.1
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	-	2.2
Pot Cap-1 Maneuver	-	-	840
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	836
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

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)	317	-	-	836	-
HCM Lane V/C Ratio	0.033	-	-	0.013	-
HCM Control Delay (s)	16.7	-	-	9.4	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0	-

HCM 6th TWSC
12: Oak Park Avenue & E-W Alley

01/17/2020

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	14	1	21	2	0	2	17	615	0	2	707	22
Future Vol, veh/h	14	1	21	2	0	2	17	615	0	2	707	22
Conflicting Peds, #/hr	0	0	0	0	0	0	16	0	16	16	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	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	0	0	0	0	0	0	0	2	0	0	1	10
Mvmt Flow	15	1	22	2	0	2	18	654	0	2	752	23
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1475	1490	780	1485	1501	670	791	0	0	670	0	0
Stage 1	784	784	-	706	706	-	-	-	-	-	-	-
Stage 2	691	706	-	779	795	-	-	-	-	-	-	-
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	106	125	399	104	123	460	838	-	-	930	-	-
Stage 1	389	407	-	430	442	-	-	-	-	-	-	-
Stage 2	438	442	-	392	402	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	101	117	393	93	115	453	825	-	-	916	-	-
Mov Cap-2 Maneuver	101	117	-	93	115	-	-	-	-	-	-	-
Stage 1	370	399	-	409	421	-	-	-	-	-	-	-
Stage 2	421	421	-	367	394	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	30.5		29		0.3		0					
HCM LOS	D		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	825	-	-	179	154	916	-	-				
HCM Lane V/C Ratio	0.022	-	-	0.214	0.028	0.002	-	-				
HCM Control Delay (s)	9.5	0	-	30.5	29	8.9	0	-				
HCM Lane LOS	A	A	-	D	D	A	A	-				
HCM 95th %tile O(veh)	0.1	-	-	0.8	0.1	0	-	-				

HCM 6th TWSC
17: Oak Park Avenue & Adams Street

01/17/2020

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	1	6	28	8	15	48	14	589	10	25	687	16
Future Vol, veh/h	1	6	28	8	15	48	14	589	10	25	687	16
Conflicting Peds, #/hr	5	0	4	4	0	5	10	0	7	7	0	10
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	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	0	17	0	0	7	0	7	2	0	0	2	0
Mvmt Flow	1	6	29	8	15	49	14	601	10	26	701	16
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1442	1417	723	1424	1420	618	727	0	0	618	0	0
Stage 1	771	771	-	641	641	-	-	-	-	-	-	-
Stage 2	671	646	-	783	779	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.67	6.2	7.1	6.57	6.2	4.17	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.67	-	6.1	5.57	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.67	-	6.1	5.57	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.153	3.3	3.5	4.063	3.3	2.263	-	-	2.2	-	-
Pot Cap-1 Maneuver	111	127	430	115	133	493	854	-	-	972	-	-
Stage 1	396	389	-	466	462	-	-	-	-	-	-	-
Stage 2	449	445	-	390	399	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	84	116	424	96	122	487	846	-	-	966	-	-
Mov Cap-2 Maneuver	84	116	-	96	122	-	-	-	-	-	-	-
Stage 1	383	368	-	451	447	-	-	-	-	-	-	-
Stage 2	378	431	-	340	377	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	20.4		27.3		0.2		0.3					
HCM LOS	C		D									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	846	-	-	270	233	966	-	-				
HCM Lane V/C Ratio	0.017	-	-	0.132	0.311	0.026	-	-				
HCM Control Delay (s)	9.3	0	-	20.4	27.3	8.8	0	-				
HCM Lane LOS	A	A	-	C	D	A	A	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.5	1.3	0.1	-	-				

HCM 6th TWSC
19: Wesley Avenue & Adams Street

01/17/2020

Intersection												
Int Delay, s/veh	8.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	50	10	29	40	1	6	1	13	1	2	1
Future Vol, veh/h	1	50	10	29	40	1	6	1	13	1	2	1
Conflicting Peds, #/hr	0	0	7	7	0	0	2	0	2	2	0	2
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	79	79	79	79	79	79	79	79	79	79	79	79
Heavy Vehicles, %	0	23	0	0	12	40	0	10	0	0	0	14
Mvmt Flow	1	63	13	37	51	1	8	1	16	1	3	1
Major/Minor	Minor2		Minor1			Major1			Major2			
Conflicting Flow All	59	43	13	78	35	11	6	0	0	19	0	0
Stage 1	8	8	-	27	27	-	-	-	-	-	-	-
Stage 2	51	35	-	51	8	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.73	6.2	7.1	6.62	6.6	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.73	-	6.1	5.62	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.207	3.3	3.5	4.108	3.66	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	942	810	1073	916	838	969	1628	-	-	1611	-	-
Stage 1	1019	849	-	996	853	-	-	-	-	-	-	-
Stage 2	967	826	-	967	869	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	891	802	1064	839	830	967	1625	-	-	1608	-	-
Mov Cap-2 Maneuver	891	802	-	839	830	-	-	-	-	-	-	-
Stage 1	1012	846	-	989	847	-	-	-	-	-	-	-
Stage 2	903	820	-	877	866	-	-	-	-	-	-	-
Approach	EB		WB			NB			SB			
HCM Control Delay, s	9.7		9.8			2.2			1.8			
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1625	-	-	837	835	1608	-	-				
HCM Lane V/C Ratio	0.005	-	-	0.092	0.106	0.001	-	-				
HCM Control Delay (s)	7.2	0	-	9.7	9.8	7.2	0	-				
HCM Lane LOS	A	A	-	A	A	A	A	-				
HCM 95th %tile O(veh)	0	-	-	0.3	0.4	0	-	-				

HCM 6th TWSC
22: Madison Street & Wesley Avenue (North Leg)

01/17/2020

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	23	911	946	12	8	45
Future Vol, veh/h	23	911	946	12	8	45
Conflicting Peds, #/hr	0	0	0	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	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	1	3	0	0	0
Mvmt Flow	24	767	797	13	8	47
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	810	0	-	0	1619	804
Stage 1	-	-	-	-	804	-
Stage 2	-	-	-	-	815	-
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	825	-	-	-	115	386
Stage 1	-	-	-	-	444	-
Stage 2	-	-	-	-	439	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	825	-	-	-	112	386
Mov Cap-2 Maneuver	-	-	-	-	250	-
Stage 1	-	-	-	-	431	-
Stage 2	-	-	-	-	439	-
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)	825	-	-	-	357	
HCM Lane V/C Ratio	0.029	-	-	-	0.156	
HCM Control Delay (s)	9.5	-	-	-	16.9	
HCM Lane LOS	A	-	-	-	C	
HCM 95th %tile O(veh)	0.1	-	-	-	0.5	

HCM 6th TWSC
24: Clarence Avenue & Madison Street

01/17/2020

Intersection						
Int Delay, s/veh	0.6					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	903	16	38	953	5	35
Future Vol, veh/h	903	16	38	953	5	35
Conflicting Peds, #/hr	0	0	0	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	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	1	0	0	3	0	0
Mvmt Flow	760	17	40	803	5	37

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	777	0	1652
Stage 1	-	-	-	-	769
Stage 2	-	-	-	-	883
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	-	-	848	-	110
Stage 1	-	-	-	-	461
Stage 2	-	-	-	-	408
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	848	-	105
Mov Cap-2 Maneuver	-	-	-	-	240
Stage 1	-	-	-	-	461
Stage 2	-	-	-	-	389

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	15.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	372	-	-	848	-
HCM Lane V/C Ratio	0.113	-	-	0.047	-
HCM Control Delay (s)	15.9	-	-	9.5	-
HCM Lane LOS	C	-	-	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0.1	-